

CONTRACT AND SPECIFICATIONS
for
Little Harbor School Asbestos Ceiling Tile Removal;
Bid #28-10

John P. Bohenko, City Manager
City of Portsmouth, New Hampshire

Prepared by:
CITY OF PORTSMOUTH
Public Works Department
Engineering Division

TABLE OF CONTENTS

INVITATION TO BID	3
INSTRUCTION TO BIDDERS	4
AWARD AND EXECUTION OF CONTRACT	7
PROPOSAL FORM	8
BIDDER'S QUALIFICATIONS	10
CONTRACT AGREEMENT	12
NOTICE OF INTENT TO AWARD	14
NOTICE TO PROCEED	15
CHANGE ORDER	16
LABOR AND MATERIALS PAYMENT BOND	17
CONTRACTOR'S AFFIDAVIT	19
CONTRACTOR'S RELEASE	20
INSURANCE REQUIREMENTS	21
GENERAL REQUIREMENTS	22
TECHNICAL SPECIFICATIONS	28

BID #28-10
CITY OF PORTSMOUTH
Public Works Department

Little Harbor School Asbestos Ceiling Tile Removal

INVITATION TO BID

Sealed bid proposals, **plainly marked, Little Harbor School Asbestos Ceiling Tile Removal;**, Bid Proposal #28-10) **on the outside of the mailing envelope as well as the sealed bid envelope,** addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire, 03801, will be accepted until **1:30pm, Monday, February 1, 2010** at which time all bids will be publicly opened and read aloud.

The City of Portsmouth is seeking licensed Asbestos Abatement Contractors for the removal of approximately 11,884 square feet of suspended ceiling tiles, fiberglass batting and pipe fitting insulation in designated work areas (containments). The ceiling grid system is to be maintained and remain in place.

The work will take place in multiple phases over 9 days, at the Little Harbour School located on Clough Drive in Portsmouth, New Hampshire. **All asbestos removal work shall begin on February 19, 2010, and be completed by February 28, 2010.** The City shall assess the Contractor liquidated damages in the amount of One Hundred Dollars (\$100.00) for each calendar day beyond the specified completion date.

There will be a mandatory Pre-bid meeting held at 3:30 p.m. Monday, January 25, 2010 at the Little Harbor School, 50 Clough Dr. The mandatory pre-bid meeting shall include a tour of the building. All prospective bidders shall contact Ken Linchey at CITY OF PORTSMOUTH (603-617-0665) for directions and additional information. Bidders not attending the mandatory meeting will not be able to submit a bid.

Specifications and bid proposal forms may be obtained from the Finance/Purchasing Department on the third floor at the above addressor on-line at www.cityofportsmouth.com or by calling the Purchasing Coordinator at 603-610-7227, unless otherwise specified.

Addenda to this bid document, if any, including written answers to questions, will be posted on the Coty of Portsmouth website under the project heading at least two (2) days prior to the bid due date.

Bidders must determine the quantities of work required and the conditions under which the work will be performed.

The City of Portsmouth reserves the right to reject any or all bids, to waive technical or legal deficiencies, and to accept any bid that it may deem to be in the best interest of the City.

If you have any questions, please contact the Purchasing Coordinator at 603-610-7227.

INSTRUCTIONS TO BIDDERS

BIDDING REQUIREMENTS AND CONDITIONS

1. Special Notice to Bidders

Appended to these instructions is a complete set of bidding and general contract forms. These forms may be detached and executed for the submittal of bids. The plans, specifications, and other documents designated in the proposal form will be considered as part of the proposal, whether attached or not.

The bidders must submit a statement of bidder's qualifications subsequent to bid opening but prior to award.

2. Interpretation of Quantities in Bid Schedules

The quantities appearing in the bid schedule are approximate only and are prepared for the comparison of bids. Payment to the contractor will be made only for actual work performed and accepted in accordance with the contract. Any scheduled item of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided, and no claim for loss, anticipated profits or costs incurred in anticipation of work not ultimately performed will be allowed due to such increase or decrease.

3. Examination of Plans, Specifications and Site Work

The bidder is expected to examine carefully the site of the proposed work, the plans, standard specifications, supplemental specifications, special provisions and contract forms before submitting a proposal. The submission of a bid shall be considered conclusive evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the contract. It will be conclusive evidence that the bidder has also investigated and is satisfied with the sources of supply for all materials.

Plans, surveys, measurements, dimensions, calculations, estimates and statements as to the condition under which the work is to be performed are believed to be correct, but the contractors must examine for themselves, as no allowance will be made for any errors or inaccuracies that maybe found therein.

4. Familiarity with Laws

The bidder is assumed to have made himself or herself familiar with all federal and state laws and all local by-laws, ordinances and regulations which in any manner affect those engaged or employed on the work or affect the materials or equipment used in the work or affect the conduct of the work, and the bidder, if awarded the contract, shall be obligated to perform the work in conformity with said laws, by-laws, ordinances and regulations notwithstanding its ignorance thereof. If the bidder shall discover any provision in the plans or specifications which is in conflict with any such law, by-law, ordinance or regulation the bidder shall forthwith report it to the engineer in writing.

5. Preparation of Proposal

a) The bidder shall submit its proposal upon the forms furnished by the Owner. The bidder shall specify a lump sum price in figures, for each pay item for which a quantity is given and shall also show the products of the respective prices and quantities written in figures in the column provided for that purpose and the total amount of the proposal obtained by adding the amount of the several items. All words and figures shall be in ink or typed.

If a unit price or a lump sum bid already entered by the bidder on the proposal form is to be altered it should be crossed out with ink, the new unit price or lump sum bid entered above or below it and initialed by the bidder, also with ink.

b) The bidder's proposal must be signed with ink by the individual, by one or more general partners of a partnership, by one or more members or officers of each firm representing a joint venture; by one or more officers of a corporation, by one or more members (if member-managed) or managers (if manager-managed) of a limited liability company, or by an agent of the contractor legally qualified and acceptable to the owner. If the proposal is made by an individual, his or her name and post office address must be shown, by a partnership the name and post office address of each general and limited partner must be shown; as a joint venture, the name and post office address of each venture must be shown; by a corporation, the name of the corporation and its business address must be shown, together with the name of the state in which it is incorporated, and the names, titles and business addresses of the president, secretary and treasurer.

c) **Addenda to this bid document, if any, including written answers to questions, will be posted on the City of Portsmouth website under the project heading at least two (2) days prior to the bid due date.**

6. Nonconforming Proposals

Proposals will be considered nonconforming and may be rejected in the Owner's sole discretion for any of the following reasons:

- If the proposal is on a form other than that furnished by the Owner, or if the form is altered or any portion thereof is detached;
- If there are unauthorized additions, conditional or altered bids, or irregularities of any kind which may tend to make the proposal or any portion thereof incomplete, indefinite or ambiguous as to its meaning;
- If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award; or
- If the proposal does not contain a unit price for each pay item listed except in the case of authorized alter pay items.

7. Proposal Guaranty

No proposal will be considered unless accompanied by a bid bond, surety, or similar guaranty of the types and in an amount not less than the amount indicated in the Invitation to Bid. All sureties shall be made payable to the "City of Portsmouth". If a bid bond is used by the bidder it shall be:

- In a form satisfactory to the Owner;
- With a surety company licensed, authorized to do business in, and subject to the jurisdiction of the courts of the State of New Hampshire; and
- Conditioned upon the faithful performance by the principal of the agreements contained in the sub-bid or the general bid.

In the event any irregularities are contained in the proposal guaranty, the bidder will have four business days (not counting the day of opening) to correct any irregularities. The corrected guaranty must be received by 4:00 p.m. If irregularities are not corrected to the satisfaction of the Owner, the Owner, in its sole discretion, may rejected the bid.

8. Delivery of Proposals

When sent by mail, the sealed proposal shall be addressed to the Owner at the address and in the care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the invitation for bids. Proposals received after the time for opening of the bids will be returned to the bidder, unopened.

9. Withdrawal of Proposals

A bidder will be permitted to withdraw his or her proposal unopened after it has been submitted if the Owner receives a request for withdrawal in writing prior to the time specified for opening the proposals.

10. Public Opening of Proposals

Proposals will be opened and read publicly at the time and place indicated in the invitation for bids. Bidders, their authorized agents, and other interested parties are invited to be present.

11. Disqualification of Bidders

Any or all of the following reasons may be deemed by Owner in its sole discretion as being sufficient for the disqualification of a bidder and the rejection of his proposal:

- More than one proposal for the same work from an individual, firm, or corporation under the same or different name;
- Evidence of collusion among bidders;
- Failure to submit all required information requested in the bid specifications;
- Lack of competency or of adequate machinery, plant or other equipment, as revealed by the statement of bidders qualification or otherwise;
- Uncompleted work which, in the judgment of the owner, might hinder or prevent the prompt completion of additional work if awarded;

- Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts;
- Default or unsatisfactory performance on previous contracts; or
- Such disqualification would be in the best interests of the Owner.

12. Material Guaranty and Samples

Before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all materials to be used in the construction of the work, and the Owner may, in its sole discretion, reject the bid based on the contents of the statement or as a result of the failure of the bidder to submit the statement.

AWARD AND EXECUTION OF CONTRACT

1. Consideration of Proposals

After the proposals are opened and read, they will be compared on the basis of the total price for all sections of work and any such additional considerations as may be identified in the bid documents. The results of such comparisons will be immediately available to the public. In case of a discrepancy between the prices written in words and those written figures, the prices written in words shall govern. In case of a discrepancy between the total shown in the proposal and that obtained by adding the products of the quantities of items and unit bid prices, the latter shall govern.

2. Award of Contract

Within 30 calendar days after the opening of proposals, if a contract is to be awarded, the award will be made to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified, in writing, mailed to the address on his or her proposal, that his or her bid has been accepted and that the bidder has been awarded the contract.

3. Reservation of Rights

The Owner reserves the right to reject any or all proposals, to waive technicalities or to advertise for new proposals, if, in the sole discretion of the Owner, the best interest of the City of Portsmouth will be promoted thereby.

The Owner reserves the right to cancel the award of any contract at any time before the execution of such contract by all parties without any liability of the Owner.

4. Return of Proposal Guaranty

All proposal guaranties, except those of the three lowest bidders, will be returned upon request following the opening and checking of the proposals. The proposal guaranties of the three lowest bidders will be returned within ten days following the award of the contract if requested.

5. Contract Bonds

At the time of the execution of the contract, the successful bidder shall furnish a **Labor and Materials Payment Bond** in the sum equal to 100 percent of the contract amount.

The bond shall be: (1) in a form satisfactory to the Owner; (2) with a surety company licensed and authorized to do business and with a resident agent designated for services of process in the State of New Hampshire; and (3) conditioned upon the faithful performance by the principal of the agreements contained in the original bid. All premiums for the contract bonds are to be paid by the contractor.

6. Execution and Approval of Contract

The successful bidder is required to present all contract bonds, to provide proof of insurance, and to execute the contract within 10 days following receipt of the City's notification of acceptance of the bid. No contract shall be considered as in effect until it has been fully executed by all parties.

7. Failure to Execute Contract

Failure to execute the contract and file acceptable bonds within 10 days after notification of acceptance of bid shall be just cause for the cancellation of the award and the forfeiture of the proposal guarantee which shall become the property of the Owner, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the City may exercise its reserved rights including the rejection of all bids or re-advertisement.

PROPOSAL FORM

Little Harbor School Asbestos Ceiling Tile Removal

CITY OF PORTSMOUTH, N.H.

To the City of Portsmouth, New Hampshire, herein called the Owner.

The undersigned, as Bidder, herein referred to as singular and masculine declares as follows:

1. All interested in the Bid as Principals are named herein.
2. This bid is not made jointly, or in conjunction, cooperation or collusion with any other person, firm, corporation, or other legal entity;
3. No officer, agent or employee of the Owner is directly or indirectly interested in this Bid.
4. The bidder has carefully examined the sites of the proposed work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this Bid, and the bidder has carefully read and examined the Drawings, Agreement, Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
5. The bidder understands that the quantities of work calculated in the Bid or indicated on the Drawings or in the Specifications or other Contract Documents are approximate and are subject to increase or decrease or deletion as deemed necessary by the Portsmouth City Engineer. Any such changes will not result in or be justification for any penalty or increase in contract prices; and agrees that, if the Bid is accepted the bidder will contract with the Owner, as provided in the Contract Documents, this Bid Form being part of said Contract Documents, and that the bidder will supply or perform all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other activities required by the Contract Documents in the manner and within the time therein set forth, and that the bidder will take in full payment therefor the following item prices, to wit:

BASE BID

The undersigned agrees to complete the work for the total Lump Sum Price of

(in figures) \$ _____

(in words) \$ _____

(Base Bid includes abatement, and disposal of Ceiling Tiles and Fiberglass Batting. Bid amounts are to be in both words and figures, in case of error, amount in words shall govern.

ALTERNATE

Abatement and Disposal of up to 50 Pipe Fittings from within work area(s).

(in figures) \$ _____

(in words) \$ _____

Unit Rate additional Pipe/Fitting Insulation \$ _____ Linear Foot (LF)

Unit Rate Floor Tile and associated Mastic \$ _____ Square Foot (SF)

In addition, Bidders shall submit the following with this bid:

- A. A copy of State of New Hampshire entity license, as required by EnvA-1800.
- B. A copy of the Abatement Contractor's insurance certificates naming the the City of Portsmouth as additional insured. Insurance requirements for this project shall be the following:
- C. A narrative, which addresses the Scope of Work required in the Project Specification, the Abatement Contractor's proposed approach to adequately complete the work,
- D. A bar chart schedule of work for each area, the size of the work crews, and other information the bidders deem relevant.

The City of Portsmouth reserves the right to reject any and all bids or portions of any and all bids.

To Bidder: It is the intention of this contract that the items listed above describe completely and thoroughly the entirety of the work as shown on the plans and as described in the specifications. All other items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item.

The Bidder has received and acknowledged Addenda No. _____ through _____.

All Bids are to be submitted on this form and in a sealed envelope, plainly marked on the outside with the Bidder's name and address and the Project name as it appears at the top of the Proposal Form.

_____	_____
Date	Company
By: _____	_____
Print Name	Business Address
By: _____	_____
Signature	City, State, Zip Code
Title: _____	
Telephone: _____	

In order to follow the City's sustainability practices, future bid invitations/specifications may be sent electronically. Please provide an email address as to where I could email future bid invitations/specifications of this type. Thank you in advance for your cooperation.

Email Address: _____

STATEMENT OF BIDDER'S QUALIFICATIONS

Supply with Bid

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. Add separate sheets if necessary

1. Name of Bidder
2. Permanent Main Office Address
3. New Hampshire Asbestos Abatement Entity License No. _____
4. When Organized
5. Where Organized
6. How many years have you been engaged in the contracting business under your present name; also state names and dates of previous firm names, if any.
7. Have you ever failed to complete any work awarded to you? ____ (no) ____ (yes). If so, where and why?
8. Have you ever defaulted on a contract? ____ (no) ____ (yes). If so, where and why?
9. Have you ever failed to complete a project in the time allotment according to the Contract Documents? ____ (no) ____ (yes). If so, where and why?
10. List the most important contracts recently executed by your company, stating approximate cost for each, and the month and year completed.

11. List your major equipment available for this contract.

12. List key personnel to be assigned to this project. Attach resumes of person bidding the project, and Project Supervisor, along with their qualifications and experience.

13. List any current litigation pending or prior decisions. Notification of any State or Federal (e.g., EPA, DOT, and OSHA) violations or citations or local citations, or a signed statement indicating no pending or decisions or citations.

Latest Financial Statements: The City reserves the right to request Bidders' latest Financial Statements.

Certified audited statements if available, prepared by an independent certified public accountant, may be requested by Owner. If requested, such statements must be provided within five (5) business days or the bid proposal will be rejected. Certified Audited Statement are preferred. Internal statements may be used only if independent statements were not prepared.

Dated at _____ this _____ day of _____, 20__.

Name of Bidder

BY _____

TITLE _____

State of _____ County of _____

_____ being duly sworn, deposes and says that the bidder is

_____ of _____
(Name of Organization)

and answers to the foregoing questions and all statements contained therein are true and correct.

Sworn to before me this ___ day of _____, 20__.

Notary of Public

My Commission expires _____

CONTRACT AGREEMENT

Little Harbor School Asbestos Ceiling Tile Removal

THIS AGREEMENT made as of the _____ day of _____ in the year ____, by and between the City of Portsmouth, New Hampshire (hereinafter call the Owner) and _____ (hereinafter called the Contractor),

WITNESSETH; that the Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE I- Work - The Contractor shall perform all work as specified or indicated in the Contract Documents for the completion of the Project. The Contractor shall provide, at his expense, all labor, materials, equipment and incidentals as may be necessary for the expeditious and proper execution of the Project.

ARTICLE II - ENGINEER - The City Engineer shall mean the Director of Public Works, or his authorized representative will act as engineer in connection with completion of the Project in accordance with the Contract Documents.

ARTICLE III - CONTRACT TIME - All asbestos removal work shall begin on February 19, 2010, and be completed by February 28, 2010.

ARTICLE IV - CONTRACT PRICE and PAYMENT- Upon final acceptance of the work and settlement of all claims, Owner shall pay the Contractor the Contract Price as shown in the Bid Proposal, subject to additions and deductions provided for in the Contract Documents.

ARTICLE V - RETAINAGE – There will be no retainage on this contract. One full payment will be made upon completion of the project.

ARTICLE VI - LIQUIDATED DAMAGES - In event the Contractor fails to successfully complete the work within the specified contract time the Owner shall assess the Contractor liquidated damages in the amount of One Hundred Dollars (\$100.00) for each calendar day beyond the specified completion date. Liquidated damages shall be deducted from the Contract Price prior to final payment of the Contractor.

ARTICLE VII – CONTRACT DOCUMENTS – The Contract Documents which comprise the contract between Owner and Contractor are attached hereto and made a part hereof and consist of the following:

- 8.1 This Agreement
- 8.2 Contractor’s Bid and Bonds.
- 8.3 Notice of Award, Notice to Proceed
- 8.4 Instruction to Bidders
- 8.5 Insurance Requirements
- 8.6 General Requirements
- 8.7 Technical Specifications
- 8.8 Any modifications, including change orders, duly delivered after execution of this Agreement.

In the event of a conflict, the Technical Specifications will govern.

ARTICLE VIII – TERMINATION FOR DEFAULT – Should contractor at any time refuse, neglect, or otherwise fail to supply a sufficient number or amount of properly skilled workers, materials, or equipment, or fail in any respect to prosecute the work with promptness and diligence, or fail to perform any of its obligations set forth in the Contract, Owner may, at its election, terminate the employment of Contractor, giving notice to Contractor in writing of such election, and enter on the premises and take possession, for the purpose of completing the work included under this Agreement, of all the materials, tools and appliances belonging to Contractor, and to employ any other persons to finish the work and to provide the materials therefore at the expense of the Contractor.

ARTICLE IX – INDEMNIFICATION OF OWNER – Contractor will indemnify Owner against all suits, claims, judgments, awards, loss, cost or expense (including without limitation attorneys’ fees) arising in any way out of the Contractor’s negligent performance of its obligations under this Contract. Contractor will defend all such actions with counsel satisfactory to Owner at its own expense, including attorneys’ fees, and will satisfy any judgment rendered against Owner in such action.

ARTICLE X – PERMITS – The Contractor will secure at its own expense, all permits and consents required by law as necessary to perform the work and will give all notices and pay all fees and otherwise comply with all applicable City, State, and Federal laws, ordinances, rules and regulations.

ARTICLE XI – INSURANCE – The Contractor shall secure and maintain, until acceptance of the work, insurance with limits not less than those specified in the Contract.

ARTICLE XII – MISCELLANEOUS –

- A. Neither Owner nor Contractor shall, without the prior written consent of the other, assign, sublet or delegate, in whole or in part, any of its rights or obligations under any of the Contract Documents; and, specifically not assign any monies due, or to become due, without the prior written consent of Owner.
- B. Owner and Contractor each binds himself, his partners, successors, assigns and legal representatives, to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents.
- C. The Contract Documents constitute the entire Agreement between Owner and Contractor and may only be altered amended or repealed by a duly executed written instrument.
- D. The laws of the State of New Hampshire shall govern this Contract without reference to the conflict of law principles thereof.
- E. Venue for any dispute shall be the Rockingham County Superior Court unless the parties otherwise agree.

IN WITNESS WHEREOF, the parties hereunto executed this AGREEMENT the day and year first above written.

BIDDER:

BY: _____

TITLE: _____

CITY OF PORTSMOUTH, N.H.

BY: _____

John P. Bohenko

TITLE: City Manager

NOTICE OF INTENT TO AWARD

Date:

TO:

IN AS MUCH as you were the low responsible bidder for work entitled:

Little Harbor School Asbestos Ceiling Tile Removal

You are hereby notified that the City intends to award the above referenced project to you.

Immediately take the necessary steps to execute the Contract and to provide proof of insurance within ten (10) calendar days from the date of this Notice.

The City reserves the right to revoke this Notice if you fail to take the necessary steps to execute this Contract.

City of Portsmouth

Portsmouth, New Hampshire

Judie Belanger,

Finance Director

NOTICE TO PROCEED

DATE:

LITTLE HARBOR SCHOOL ASBESTOS CEILING TILE REMOVAL SYSTEM

TO:

YOU ARE HEREBY NOTIFIED TO COMMENCE WORK IN ACCORDANCE WITH THE AGREEMENT DATED _____ . ALL WORK SHALL BE COMPLETED BY **February 28, 2010**.

CITY OF PORTSMOUTH, N.H.

BY: Dan Hartrey

Facilities Project Manager

ACCEPTANCE OF NOTICE

RECEIPT OF THE ABOVE NOTICE TO

PROCEED IS HEREBY ACKNOWLEDGED BY

This the _____ day of _____ 20__

By: _____

Title: _____

CHANGE ORDER

Change Order Number _____

Date of Issuance _____

Owner: CITY OF PORTSMOUTH, N.H

Contractor: _____

You are directed to make the following changes in the Contract Documents:

Description:

Purpose of Change Order:

Attachments:

CHANGE IN CONTRACT PRICE

CHANGE IN CONTRACT TIME

Original Contract Price:

Original Completion Date:

\$ _____

_____ days

Contract Price prior to this Change Order:

Contract Time prior to this Change Order:

\$ _____

_____ days

Net Increase or Decrease of this Change Order:

Net Increase or Decrease of this Change Order:

\$ _____

_____ days

Contract Price with all approved Change Orders:

Contract Time with all approved Change Orders:

\$ _____

_____ days

RECOMMENDED:

APPROVED:

APPROVED:

by _____
PW Director

by _____
City Finance

by _____
City Manager

by _____
Contractor

LABOR AND MATERIAL PAYMENT BOND

(This format provided for convenience, actual Labor and Material Bond is acceptable in lieu, if compatible)

Bond Number _____

KNOW ALL MEN BY THESE PRESENTS:

that _____

as Principal, hereinafter called Contractor, and _____ (Surety Company) a corporation organized and existing under the laws of the State of _____ and authorized to do business in the State of New Hampshire hereinafter called Surety, are held and firmly bound unto the City of Portsmouth, N.H. Obligee, hereinafter called Owner, for the use and benefit of claimants as herein below defined, in the amount of _____ Dollars (\$ _____), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____ entered into a contract with Owner for _____ in accordance with drawings and specifications prepared by the Public Works Department, 680 Peverly Hill Road, Portsmouth, N.H. 03801, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract and for the hire of all equipment, tools, and all other things contracted for or used in connection therewith, then this obligation shall be void, otherwise it shall remain in full force and effect, subject however, to the following conditions:

(1) A claimant is defined as one having a direct contract with the Principal or, with a subcontractor of the Principal for labor, material, equipment, or other things used or reasonably required for use in the performance of the Contract. "Labor and material" shall include but not be limited to that part of water, gas, power, light, heat, oil and gasoline, telephone service or rental of equipment applicable to the Contract.

(2) The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such a claimant, may sue on this bond for the use of such claimant, prosecute the suit by final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any such suit or any costs or expenses of any such suit, and principal and surety shall jointly and severally indemnify, defend and hold the Owner harmless for any such suit, costs or expenses.

(3) No suit or action shall be commenced hereunder by any claimant:

(a) Unless Claimant, other than one having a direct contract with the Principal, shall have given notice to all the following:

The Principal, the Owner and the Surety above named, within six (6) calendar months after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner, and Surety, at any place where

LABOR AND MATERIAL PAYMENT BOND (continued)

an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State of New Hampshire save that such service need not be made by a public officer.

(b) After the expiration of one (1) year following the date on which Principal ceased all work on said contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

(c) Other than in a State court of competent jurisdiction in and for the county or other political subdivision of the State in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere. (4) The amount of this bond may be reduced by and to the extent of any payment of payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed on record against said improvement, whether or not claim for the amount of such lien by presented under and against this bond.

Signed and sealed this _____ day of _____, 20____. In the presence of:

_____ BY: _____

(Witness) (Principal) (Seal)

(Surety Company)

_____ BY: _____

(Witness) (Title) (Seal)

Note:

If the Principal (Contractor) is a partnership, the Bond should be signed by each of the partners.

If the Principal (Contractor) is a corporation, the Bond should be signed in its correct corporate name by its duly authorized Officer or Officers.

If this bond is signed on behalf of the Surety by an attorney-in-fact, there should be attached to it a duly certified copy of his Power of Attorney showing his authority to sign such Bonds.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Agreement.

CONTRACTOR'S AFFIDAVIT

STATE OF _____:

COUNTY OF _____:

Before me, the undersigned, a _____
(Notary Public, Justice of the Peace)

in and for said County and State personally appeared, _____
(Individual, Partner, or duly authorized representative of Corporate)

who, being duly sworn, according to law deposes and says that the cost of labor, material, and equipment and outstanding claims and indebtedness of whatever nature arising out of the performance of the Contract between

CITY OF PORTSMOUTH, NEW HAMPSHIRE

and _____
(Contractor)

of _____

Dated: _____

has been paid in full for installation of _____

(Individual, Partner, or duly authorized representative of Corporate Contractor)

Sworn to and subscribed

before me this _____ day of _____ 20____

CONTRACTOR'S RELEASE

KNOW ALL MEN BY THESE PRESENTS that _____(C

ontractor) of _____, County of _____ and State of

_____ does hereby acknowledge

that _____(Contractor)

has on this day had, and received from the CITY OF PORTSMOUTH NEW HAMPSHIRE, final and completed payment for the installation of the Police Department dehumidifier

NOW THEREFORE, the said _____

(Contractor)

for myself, my heirs, executors, and administrators) (for itself, its successors and assigns) do/does by these presents remise, release, quit-claim and forever discharge the City of Portsmouth, New Hampshire, its successors and assigns, of and from all claims and demands arising from or in connection with the said Contract dated _____, and of and from all, and all manners of action and actions, cause and causes of action and actions, suits, debts, dues, duties, sum and sums of money, accounts, reckonings, bonds, bills, specifications, covenants, contracts, agreements, promises, variances, damages, judgments, extents, executions, claims and demand, whatsoever in law of equity, or otherwise, against the City of Portsmouth, New Hampshire, its successors and assigns, which (I, my heirs, executors, or administrators) (it, its successors and assigns) ever had, now have or which (I, my heirs, executors, or administrators) (it, its successors and assigns) hereafter can shall or may have, for, upon or by reason of any matter, cause, or thing whatsoever; from the beginning of record time to the date of these presents.

IN WITNESS WHEREOF,

print name of witness: _____
Dated: _____

Contractor:
By: _____
Its Duly Authorized _____

INSURANCE REQUIREMENTS

Insurance shall be in such form as will protect the Contractor from all claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this contract whether such operation by himself or by anyone directly or indirectly employed by him.

AMOUNT OF INSURANCE

- A) Comprehensive General Liability:
Bodily injury or Property Damage - \$2,000,000
Per occurrence and general aggregate
- B) Automobile and Truck Liability:
Bodily Injury or Property Damage - \$2,000,000
Per occurrence and general aggregate
Coverage requirements can be met with excess policies

Additionally, the Contractor shall purchase and maintain the following types of insurance:

- A) Full Workers Comprehensive Insurance coverage for all people employed by the Contractor to perform work on this project. This insurance shall at a minimum meet the requirements of the most current laws of the State of New Hampshire.
- B) Contractual Liability Insurance coverage in the amounts specified above under Comprehensive General Liability.
- C) Product and Completed Operations coverage to be included in the amounts specified above under Comprehensive General Liability.
- D) Contractors Pollution Liability in the amount of \$2,000,000

ADDITIONAL INSURED

All liability policies (including any excess policies used to meet coverage requirements) shall include the City of Portsmouth, New Hampshire as named Additional Insureds.

- 1) The contractor's insurance shall be primary in the event of a loss.
- 2) City of Portsmouth shall be listed as a Certificate Holder. The City shall be identified as follows:

City of Portsmouth
Attn: Legal Department
1 Junkins Avenue
Portsmouth, NH 03801

SECTION 01000 - GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 INTENT OF CONTRACT

- A. The intent of the Contract is to provide for the construction and completion in every detail of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the terms of the Contract.
- B. The Contractor shall be required to conform to the intent of the plans and specifications. No extra claims shall be allowed for portions of the work not specifically addressed in the plans and specifications but required to produce a whole and complete project, such work will be considered subsidiary to the bid items.

1.2 INCIDENTAL WORK

- A. Unless specifically excepted in the Bid or Technical Specifications, incidental work items for which separate payment is not measured includes, but is not limited to, the following items:
 - 1) Clean up
 - 2) Signs
 - 3) Mobilization
 - 4) Restoration of property
 - 5) Cooperation with other contractors, abutters and utilities.
 - 6) Accessories and fasteners or components required to make items complete and functional.

1.3 ALTERATION OF PLANS OR OF CHARACTER OF WORK

- A. The Owner reserves the right, without notice to Surety, to make such alterations of the plans or of the character of the work as may be necessary or desirable to complete fully and acceptably the proposed construction; provided that such alterations do not increase or decrease the contract cost.
- B. Within these cost limits, the alterations authorized in writing by the Owner shall not impair or affect any provisions of the Contract or bond.
- C. Any such increases or decreases of the quantities as a result from these alterations or deletions of certain items, shall not be the basis of claim for loss or for anticipated profits by the Contractor.
- D. The Contractor shall perform the work as altered at the contract unit price or prices.

1.4 EXTRA WORK ITEMS

- A. Extra work shall be performed by the Contractor in accordance with the specifications and as directed.
- B. Extra work performed will be paid for at the contract bid prices or at the price negotiated between the Owner and the Contractor if the item was not bid upon. If no agreement can be negotiated, the Contractor will accept as payment for extra work, cost plus 15% (overhead and profit). Costs shall be substantiated by invoices and certified payroll.

- C. Extra work will be paid for at a price as provided in the Contract documents or if such pay items are not applicable than at a price negotiated between the contractor and the Owner or at the unit Bid price.
- D. If the Owner determines that extra work is to be performed, a change order will be issued.

1.5 CHANGE ORDERS

- A. The Owner reserves the right to issue a formal change order for any increase, decrease, deletion, or addition of work or any increase in contract time or price.
- B. The Contractor shall be required to sign the change order and it shall be considered as part of the Contract documents.

1.6 FINAL CLEAN UP

- A. Before acceptance of the work, the Contractor shall remove from the site all machinery, equipment, surplus materials, rubbish, temporary buildings, barricades and signs.
- B. All parts of the work shall be left in a neat and presentable condition.
- C. On all areas used or occupied by the Contractor, regardless of the contract limits, the Bidder shall clean-up all sites and storage grounds.

1.7 ERRORS AND INCONSISTENCY IN CONTRACT DOCUMENTS

- A. Any provisions in any of the Contract Documents that may be in conflict with the paragraphs in these General Requirements shall be subject to the following order of precedence for interpretation.
 - 1. Technical Specifications will govern General Requirements and Standard Specifications.
 - 2. Shop Drawings will govern Technical Specifications, Standard Specifications and General Requirements.

PART 2 CONTROL OF WORK

2.1 AUTHORITY OF THE CITY ENGINEER

- A. All work shall be done under supervision of the City Engineer and to his satisfaction.
- B. The City Engineer will decide all questions which may arise as to:
 - 1. the quality and acceptability of materials furnished and work performed;
 - 2. the rate of progress of the work;
 - 3. the interpretation of the plans and specifications;
 - 4. the acceptable fulfillment of the Contract by the Contractor.
- C. The City Engineer will have the authority to suspend the work wholly or in part for such periods as he may deem necessary
 - 1. due to the failure of the Contractor to correct conditions unsafe for workers or the general public;
 - 2. for failure to carry out provisions of the Contract;
 - 3. for failure to carry out orders;
 - 4. for conditions considered unsuitable for the prosecution of the work, including unfit weather; or for any other condition or reason deemed to be in the public interest.

- D. The Contractor shall not be entitled any additional payments arising out of any such suspensions.
- E. The Owner reserves the right to demand a certificate of compliance for a material or product used on the project. When the certificate of compliance is determined to be unacceptable to the City Engineer the Contractor may be required to provide engineering and testing services to guarantee that the material or product is suitable for use in the project, at its expense.

2.2 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPES

- A. The Contractor shall be responsible for all damage or injury to property of any character:
 - 1. during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work,
 - 2. or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.
- B. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or as a result of the failure to perform work by the Contractor, the Contractor shall restore, at its own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing rebuilding, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.
- C. If the Contractor fails to repair, rebuild or otherwise restore such property as may be deemed necessary, the Owner, after 48 hours notice, may proceed to do so, and the cost thereof may be deducted from any money due or which may become due the Contractor under the contract.

2.3 MAINTENANCE DURING CONSTRUCTION

- A. The Contractor shall maintain the work during construction and until the project is accepted.
- B. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and workers to ensure that the structure is kept in satisfactory conditions at all times.

2.4 SAFETY PRECAUTIONS

- A. Upon commencement of work, the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions necessary to ensure the safety of employees on the site, other persons who may be affected thereby, including the public, and other property at the site or adjacent thereto.

2.5 PERMITS

- A. It will be the responsibility of the Contractor to obtain all permits required for the operation of equipment in, or on, all city streets and public ways.

2.6 BARRICADES AND WARNING SIGNS

- A. The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient lights, signs and other traffic control devices, and shall take all necessary precautions for the protection of the work and safety of the building occupants and the public.
- B. Closed off areas shall be protected by effective barricades. Obstructions shall be illuminated during hours of darkness. Suitable warning signs shall be provided to control and direct traffic in a proper manner, as approved by the engineer.
- C. The Contractor will be held responsible for all damage to the work due to lack of adequate controlling devices.

PART 3 TEMPORARY FACILITIES

3.1 STORAGE FACILITIES

- A. The Contractor shall not store materials or equipment in a public right-of-way beyond the needs of one working day. Equipment and materials shall be stored in an approved location.
- B. The Contractor shall protect all stored materials from damage by weather or accident and shall insure adequate drainage at and about the storage location.
- C. Prior to final acceptance of the work all temporary storage facilities and surplus stored materials shall be removed from the site.

3.2 WATER FACILITIES

- A. The Owner shall provide the Contractor with reasonable access to water necessary for construction operations at the site.

3.3 TEMPORARY ELECTRICITY

- A. The Owner shall provide the Contractor with reasonable access to electrical power necessary for construction operations at the site.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT OF QUANTITIES (As may be applicable to the Project)

- A. All work completed under the contract will be measured according to the United States standard measure.
- B. The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice. Unless otherwise stated all quantities measured for payment shall be computed or adjusted for "in place" conditions.

4.2 SCOPE OF PAYMENT

- A. The Contractor shall receive and accept compensation provided for work in the contract as full payment for furnishing all materials and for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage or expense of whatever character arising out of the nature of the work or the prosecution thereof.
- B. The Contractor shall be liable to the Owner for failure to repair, correct, renew or replace, at his own expense, all damage due or attributable to defects or imperfections in the construction which defects or imperfections may be discovered before or at the time of the final inspection and acceptance of the work.
- C. No monies, payable under the contract or any part thereof, shall become due or payable if the Owner so elects, until the Contractor shall satisfy the Owner that the Contractor has fully settled or paid all labor performed or furnished for all equipment hired, including trucks, for all materials used, and for fuels, lubricants, power tools, hardware and supplies purchased by the Contractor and used in carrying out said contract and for labor and parts furnished upon the order of said Contractor for the repair of equipment used in carrying out said contract; and the Owner, if he so elects, may pay any and all such bills, in whole or in part.

4.3 PAYMENT PROCEDURES

- A. Submit Application for Payment after completion of Project closeout procedures with release of liens and supporting documentation. Include consent of surety to final payment and insurance certificates.

4.4 COMPENSATION FOR ALTERED QUANTITIES

- A. Except as provided for under the particular contract item, when the accepted quantities of work vary from the quantities in the bid schedule, the Contractor shall accept as payment in full, so far as contract items are concerned, at the original contract unit prices for the accepted quantities of work done. No allowance will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the Bidder and subsequent loss of expected reimbursements therefore or from any other cause.
- B. Extra work performed will be paid for at the contract bid prices or at the price negotiated between the Owner and the Contractor if the item was not bid upon. If no agreement can be negotiated, the Contractor will accept as payment for extra work, cost plus 15% (overhead and profit). Costs shall be substantiated by invoices and certified payroll.

4.5 FINAL ACCEPTANCE AND FINAL PAYMENT

- A. Upon due notice from the Contractor of presumptive completion of the entire project, the City Engineer will make an inspection. If all construction provided for and contemplated by the contract is found complete to his satisfaction, this inspection shall constitute the final inspection and the City Engineer will make the

final acceptance and notify the Contractor in writing of this acceptance as of the date of the final inspection.

- B. If the City Engineer's inspection discloses any work in whole or in part, as being unsatisfactory, the City Engineer will give the Contractor the necessary instructions for correction of such work, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the City Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

4.6 GENERAL GUARANTY AND WARRANTY OF TITLE

- A. Neither the final certification of payment nor any provision in the contract nor partial or entire use of the improvements embraced in this Contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express or implied warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of twelve (12) months from the date of final acceptance of the work. The Owner will give notice of defective materials and work with reasonable promptness.
- B. No material, supplies or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease purchase or other agreement by which an interest therein or in any part thereof is retained by the Seller or supplier. The Contractor shall warrant good title to all materials, supplies and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have the right to a lien upon any improvements or appurtenances thereon.
- C. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this paragraph shall be inserted in all subcontractors and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

4.7 NO WAIVER OF LEGAL RIGHTS

- A. Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or be stopped from recovering from the Contractor or his Surety, or both, such

overpayment as it may sustain by failure on the part of the Contractor to fulfill his obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

- B. The Contractor, without prejudice to the Contract, shall be liable to the Owner for latent defects, fraud or such gross mistakes as may amount to fraud, and as regards the Owner's right under any warranty or guaranty.

4.8 TERMINATION OF CONTRACTOR'S RESPONSIBILITY

- A. Whenever the improvement provided for by the Contract shall have been completely performed on the part of the Contractor and all parts of the work have been released from further obligations except as set forth in his bond and as provided in Section 4.5 above.

TECHNICAL SPECIFICATIONS

PART 1

- 1.1 General
- 1.2 Summary of Work
- 1.3 Schedule

PART 2

- 2.1 Scope of Work
- 2.2 Time Constraints
- 2.3 Asbestos-Containing Material Present
- 2.4 Hazards of Asbestos
- 2.5 Non-Asbestos Demolition
- 2.6 Other Site Safety/Health Considerations
- 2.7 Emergency Phone Numbers
- 2.8 Project Management
- 2.9 Authority To Stop Work

PART 3

- 3.1 Abatement Contractor Qualifications
- 3.2 Personnel
- 3.3 Training and Medical Monitoring
- 3.4 Worker Protection
- 3.5 Fire Safety Prevention
- 3.6 Respiratory Protection

PART 4

- 4.1 Applicable Codes
- 4.2 Notices and Permits
- 4.3 Submittals
- 4.4 Equipment, Supplies, Provisions
- 4.5 General Preparation Requirements

PART 5

- 5.1 Air Monitoring Requirements
- 5.2 Clearance Criteria and Inspection
- 5.3 Decontamination Units
- 5.4 Worker Decontamination
- 5.5 Air Movement/Filtration Requirements
- 5.6 Work Area Preparation

PART 6

- 6.1 Execution of Asbestos Removal Work
- 6.2 Execution of Decontamination Work
- 6.3 Asbestos-Containing Waste Disposal Requirements
- 6.4 Project Closeout

Prepared by:
Stephen McPherson
Senior Safety and Health Professional
New Hampshire Certified Project Designer No. AD000204

PART 1

1.1 GENERAL

- A. The City of Portsmouth has contracted the services of Scott Lawson Group Ltd. (SLGL) for the performance of Industrial Hygiene and Project Monitoring Services (Project Administrator) for this project. Requests for technical clarifications are to be made to SLGL, who shall issue responses, corrections, and amendments which are deemed necessary in a written addendum.
SLGL Contact: Stephen McPherson, Project Manager
E-Mail Steve@SLGL.com
Phone: (603) 228-3610
Fax: (603) 228-3871
- B. The Abatement Contractor must comply with the requirements and make submittals as stated in this Project Specification.
- C. All work shall be conducted in accordance with applicable Federal, State, and local requirements, and this Project Specification.
 - 1. Air-filtration/pressure-differential enclosures, wet removal and cleaning and HEPA-vacuuuming techniques shall be utilized to conduct all Asbestos removal and decontamination operations.

1.2 SUMMARY OF WORK

- A. The general approach for this project is to conduct removal and decontamination utilizing conventional methods and procedures.
- B. Performance of the Work and Provisions of Services as follows:
 - 1. Scope of Work (SOW) for this project includes comprehensive Asbestos abatement operations in the designated areas of Little Harbour School located on Clough Drive in Portsmouth, New Hampshire.
 - 2. The SOW for this contract will take place in multiple Phases over 9 days, and includes the proper removal, decontamination, transportation, and disposal of Asbestos-Containing or Asbestos-Contaminated Materials (ACM).
 - 3. The Abatement Contractor shall be responsible for the removal of all ceiling tiles, fiberglass insulation, and pipe fitting insulation in designated work areas.
 - 4. The abatement contractor unless otherwise provided in the contract documents shall provide and pay for all labor, materials, equipment, tools, transportation, and other services necessary for the safe completion of work within designated time frames.
- C. The Contractor shall confine operations at the site to designated work areas and not unreasonably encumber the site with any materials or equipment.
- D. The Contractor shall be required to submit a detailed work plan, listing, manpower, hours of operations, containment configurations, locations of all containments and sequencing of work, decontamination unit locations and air-filtration/pressure-differential systems, design location of temporary barriers, type of construction, and detail general progress and milestones on the schedules and include substantial and final completion dates.

1. Plan of action shall also include proposed waste handling procedures including temporary storage, transportation, final disposal, of both ACM and hazardous and/or regulated wastes and applicable schedules.
 2. Schedules shall include and detail time, for SLGL inspections and air testing. This plan of action must be in both writing and in the form of a bar chart. Plan of action is subject to review and approval by the Project Manager and the City of Portsmouth. Contractor must revise and modify plan of action as needed such that approval is obtained prior to work.
- E. The Abatement Contractor will also be responsible for the removal and disposal of the fiberglass insulation above the suspended ceilings in all phases. This material will be disposed of as Asbestos waste. Refer to the project drawing for the extent of each Phase.
- F. This project includes the abatement of all ACM listed below. The final order of each Phase will be determined by the City of Portsmouth and SLGL.
- G. Work areas and approximate quantities of ACM to be abated include:

Material	Location	Approximate Quantity
Suspended Ceiling Tiles	Phases I-VIII	11, 884 ft ²
Fiberglass Batting	Phases I-VIII	11, 884 ft ²

1.3 SCHEDULE

- A. **All asbestos removal work shall begin on February 19, 2010, and be completed by February 28, 2010.**
1. Work shall be completed according to the schedules included herein.
 2. Phases I & II will be done simultaneously with Phase VIII to expedite TEM clearances.
 3. Pre and post removal visuals and clearances will be made by the City's Consultant, Scott Lawson Group Ltd. (SLGL) based upon the Abatement Contractors bar chart schedule will, 24 hour written notice is required for schedule changes.
 - a. The Abatement Contractor cannot begin removal in any work area until they have met requirements of section 4.5 of this specification.
 4. Should the Abatement Contractor fall behind the bar chart schedule required in the bid submittal package, the Abatement Contractor shall place additional personnel on-site, at no additional cost to the City of Portsmouth, until SLGL's Project Manager determines the abatement project is back on the bar chart schedule.

PHASE I – Principal & Academic Wings

ACM	General location	Approximate Quantity
Suspended Ceiling Tiles	Gym and Cafeteria Exits Connecting Corridor Reception Area Principal’s Office Upper and lower stairwells Upper level from Librarian’s office to teachers lounge Chapter I Sec. Office to Conference Room	4500 SF
Fiberglass Batting	Gym and Cafeteria Exits Connecting Corridor Reception Area Principal’s Office Upper and lower stairwells Upper level from Librarian’s office to teachers lounge Chapter I Sec. Office to Conference Room	4500 SF

PHASE 1 Notes:

- 1) See Drawings for approximate location
- 2) Extend containment as practical to reach and include HVAC diffusers/returns
- 3) Gym 6’x6’ section at Fire Doors
- 4) Cafeteria 12’x8’ section at Fire Doors
- 5) Reception Area -8’x20’ only to access Fire Panel
- 6) Principals Office -total of 6 Ceiling Tiles (24 ft2) for Cable Relocation
- 7) No work in Teachers Lounge or Conf. Room on Upper Level in Acad. Wing
- 8) Leave new tiles out of containment by library
- 9) Abate 10’x24’ section from fire doors at Librarians Office to new ceiling tiles
- 10) Air Clearances by TEM

PHASE II –Academic Wing

ACM	General location	Approximate Quantity
Suspended Ceiling Tiles	Upper Level SW stairwell to NW stairwell	2200 SF
Fiberglass batting	Upper Level SW stairwell to NW stairwell	2200 SF

PHASE II Notes:

- 1) See Drawings for approximate location
- 2) Extend containment as practical to reach HVAC diffusers/returns
- 3) NW&SW Stairwells-6’x6’ sections in stairwells at fire doors
- 4) Remove all ceiling tiles and fiberglass batting between fire doors at restrooms
- 5) Air Clearances by TEM

PHASE III –Academic Wing

ACM	General location	Approximate Quantity
Suspended Ceiling Tiles	Lower Level - stairwell to by Teachers Workroom	48 SF
Fiberglass batting	Lower Level - Exit by Teachers Workroom	48 SF

PHASE III Notes:

- 1) See Drawings for approximate location
- 2) 6’x4’ section on each side of fire doors
- 3) Air Clearances by PCM

PHASE IV –Academic Wing

ACM	General location	Approximate Quantity
Suspended Ceiling Tiles	Lower Level – SW stairwell	48 SF
Fiberglass batting	Lower Level – SW stairwell	48 SF

PHASE IV Notes:

- 1) See Drawings for approximate location
- 2) 6’x4’ section on each side of fire doors
- 3) Air Clearances by PCM

PHASE V –Academic Wing

ACM	General location	Approximate Quantity
Suspended Ceiling Tiles	Lower Level – Center restroom area and both sides of fire doors	150 SF
Fiberglass batting	Lower Level – Center restroom area and both sides of fire doors	150 SF

Phase V Notes:

- 1) See Drawings for approximate location.
- 2) Remove all ceiling tiles and fiberglass batting between fire doors at restrooms and one section of ceiling tiles on each side of fire doors.
- 3) Air Clearances by PCM.

PHASE VI –Academic Wing

ACM	General location	Approximate Quantity
Suspended Ceiling Tiles	Lower Level – SW stairwell	48 SF
Fiberglass batting	Lower Level – SW stairwell	48 SF

PHASE VI Notes:

- 1) See Drawings for approximate location
- 2) 6’x4’ section on each side of fire doors
- 3) Air Clearances by PCM

PHASE VII –Academic Wing

ACM	General location	Approximate Quantity
Suspended Ceiling Tiles	Lower Level – Exit by storage room	48 SF
Fiberglass batting	Lower Level – Exit by storage room	48 SF

Phase VII Notes:

- 1) See Drawings for approximate location
- 2) 6’x4’ section on each side of fire doors
- 3) Air Clearances by PCM

PHASE VIII – Principal & Academic Wings

ACM	General location	Approximate Quantity
Suspended Ceiling Tiles	Throughout approx. 3-4 locations per classroom, estimated to be <u>91 locations</u>	48 SF Each location
Fiberglass Batting	Throughout approx. 3-4 locations per classroom, estimated to be <u>91 locations</u>	48 SF Each location

PHASE VIII Notes:

- 1) A total of three (3) ceiling tiles at each location will be abated, the ceiling tile in which the diffuser or return is located, and the ceiling tile on either side.
- 2) Ceiling tiles are to be removed intact with little to no breakage.
- 3) These areas are to be abated in conjunction with prep work in phase I & II.
- 4) Air Clearances by PCM.

PART 2

2.1 SCOPE-OF-WORK

- A. SOW for this contract includes the removal of ACM and associated comprehensive abatement operations in the Little Harbour School located on Clough Drive in Portsmouth, New Hampshire. It also includes the removal of fiberglass insulation in work area.
- B. All work shall be conducted in the designated areas in accordance with applicable Federal, State, and local regulations, this Project Specification.
- C. Work shall be completed according to the phased sequence designated by the City of Portsmouth and as described herein. All work shall be scheduled to accommodate the City of Portsmouth business, school, and construction operations.
- D. This Project Specification has been prepared and designed by Scott Lawson Group Ltd. (SLGL). All additional work requested and/or performed on this project, which is not specifically addressed in this Project Specification, must be designed and approved by SLGL, in a written change order.
- E. Work not detailed herein shall not be conducted by the Abatement Contractor until project design has been completed by SLGL and written authorization to proceed is provided to the Abatement Contractor by the City of Portsmouth and SLGL.
- F. Pipe Fitting insulation quantities are unknown due to inability to access above Asbestos-containing Ceiling Tiles Abatement Contractor shall carry as a line item the abatement and disposal of 50 pipe fittings to be removed of in containment. SLGL and Abatement Supervisor to document number of fittings removed.

2.2 TIME CONSTRAINTS

- A. All Asbestos removal work shall begin on or about February 19, 2010, and be completed by February 28, 2010, with the exact schedule to be set by the City of Portsmouth. The Contractor will have 9 days for all Phase's. Work shifts shall be detailed in Contractor work plan, however the proposed schedule is 7:00am to 3:30 pm.
- B. The scheduled number of shifts shall include shift time for conducting visual inspections and air clearance testing by SLGL's on-site Health and Safety (H&S) Professional.
- C. The Abatement Contractor shall note applicable turnaround time for visual inspection and air clearance testing. For additional information, see reference Section 5.2 of this Project Specification.
 - 1. This project requires the collection and off-site analysis of Transmission Electron Microscopy (TEM) clearance samples, as per the Environmental Protection Agency Asbestos Hazard Emergency Response Act (EPA AHERA) regulation.
- D. Sufficient manpower and equipment must be provided to successfully complete the abatement work within the established time frame for the contract, and for each individual phase of work. The Contractor should be performing work area prep in the other Phases not under abatement.
- E. Progress meetings shall be held during abatement to determine the adequacy of progress. If progress is not on schedule as determined by the bar chart schedule, and it is determined that this will have a negative impact on the critical path of the project or the individual

phase schedule, the Abatement Contractor shall be required to place additional personnel on-site at no cost to the City of Portsmouth.

- F. The City of Portsmouth representative may determine if there is a need for the Abatement Contractor to place additional workers on-site and if so, inform the Abatement Contractor.
- G. If an adequate work crew, with adequate equipment, to proceed in a safe and cautious manner, is not present at the beginning of each work shift, work shall not begin. This judgment shall be at the discretion of the the City of Portsmouth representative.
- H. Work hours stated herein shall be adhered to unless SLGL's Project Manager approves the changes. A 24-hour notice shall be required for requests for any changes to the work schedule.

2.3 ASBESTOS-CONTAINING MATERIAL PRESENT

- A. The following ACM is known to be present at the above-listed work areas and in other sections of the school not included in the Project SOW. If any other materials are found which are suspected of containing Asbestos, notify the City of Portsmouth on-site representative immediately.
 - 1. Average Asbestos Content in materials
 - a. Ceiling Tiles: 5% Amosite
 - b. Pipe Fitting Insulation: 10 % Chrysotile
 - c. Floor Tiles and Mastic: Assumed (Not being abated)
- B. The Abatement Contractor is alerted to the fact that Asbestos-Containing floor tiles and mastic exist in the work areas. The Contractor must protect these tiles and will be responsible for the proper removal and disposal of all tiles damaged or loosened as a result of abatement operations. The Abatement Contractor shall protect carpeted surfaces in work areas from damage and clean as necessary.

2.4 HAZARDS OF ASBESTOS

- A. Disturbing or dislocating ACM causes Asbestos fibers to be released into the building's atmosphere, thereby creating a potential health hazard to workers, building occupants, and public in the vicinity. In accordance with OSHA standard 29 CFR §1910.1200 and 29 CFR § 1926.1101, the Abatement Contractor shall apprise all of his workers, supervisory personnel, and Subcontractors on the job site of the seriousness of the health hazards and proper work procedures which must be followed.
- B. Where, in the performance of their work, workers, supervisory personnel or consultants they may encounter, disturb or otherwise function in the immediate vicinity of any identified ACM, shall take appropriate continuous measures as necessary to protect all building occupants from the potential hazard of exposure to elevated concentrations of Asbestos fibers. Such measures shall include the procedures and methods described herein and compliance with regulations of applicable Federal, State, and local agencies.

2.5 NON-ASBESTOS DEMOLITION

- A. No demolition is included in this Scope-of-work to access ACM.

2.6 OTHER SITE SAFETY/HEALTH CONSIDERATIONS

- A. The Abatement Contractor shall continuously monitor for potential safety hazards and implement precautionary measures in consult with SLGL.
- B. Examples of some anticipated safety hazards on this project include:
 - 1. wet/slippery surfaces
 - 2. handling of sharp objects
 - 3. Electrocution hazards
 - 4. use of ladders and scaffolding
 - 5. de-energized equipment
- C. Prior to the commencement of work, the Abatement Contractor foreman shall identify site safety hazards and devise, at that time, any precautionary measures needed to be implemented at the start of work. SLGL, site workers, and Subcontract personnel shall be apprised of the hazards. Any new hazards should be noted by site personnel, reported to SLGL, and the Supervisor, and the affected area vacated immediately until precautionary measures are devised and implemented.
- D. Self-Contained Breathing Apparatus (SCBA) shall be worn at all times during emergency response operations when there is the potential for exposure to hazardous substances.
- E. The Abatement Contractor shall submit to SLGL's Project Manager, all Material Safety Data Sheets (MSDS') for materials to be used on-site including, but not limited to, materials such as encapsulant and spray adhesives. Additionally, all transport containers or temporary storage containers shall be appropriately labeled including a list of any hazardous contents.
- F. The Abatement Contractor's Site Health and Safety Plan (HASP) shall address the appropriate exposure monitoring for, but not limited to, the materials listed.
- G. Electrical Hazards: Electric wires, cables, power lines, and electrical equipment used on-site during operations pose a danger of shock or electrocution if workers contact or sever them. In addition, capacitors that may retain charge must be properly grounded and/or de-energized before handling.
- H. Lockout/Tagout (LO/TO): Procedures used to de energize cables, capacitors, circuit panels, and mechanical equipment shall include locking out and tagging, in accordance with 29 CFR § 1910.147. The Abatement Contractor shall submit their written program to the Project Manager for review. The Abatement Contractor shall ensure that LO/TO procedures are effectively coordinated with other Contractors and/or Subcontractors, and the City of Portsmouth, Department of Building Services.

2.7 EMERGENCY PHONE NUMBERS

- A. Ambulance, Fire and Police Phone: 911
- B. Portsmouth Regional Hospital Phone: (603) 436-5110
333 Borthwick Avenue
Portsmouth, New Hampshire
- C. City of Portsmouth Contact: Kenneth Linchey, Maintenance Supervisor
Phone: 603-431-6753
- D. SLGL Contact: Stephen McPherson, Sr. Safety and Health Professional
Cell: 603-848-3612

- E. State of NH /EPA Phone: (603) 271-1370
Address: Air Resources
6 Hazen Drive.
Concord, New Hampshire
Contact: Stephen Cullinane, PE

2.8 PROJECT MANAGEMENT

- A. SLGL has been contracted as the representative for the City of Portsmouth to manage and review the abatement phases of this project.
- B. SLGL shall schedule an H&S Professional on-site during each phase of abatement. SLGL's on-site H&S Professional shall review and make recommendations pertaining to and document:
 - 1. On-site personnel knowledge and adherence to removal plans and specifications.
 - 2. Compliance with Federal, State, and local Asbestos regulations.
 - 3. Acceptable visual inspections of work areas during work and prior to clearance sampling.
 - 4. Proper personnel and equipment decontamination.
 - 5. Appropriate equipment availability and proper utilization by personnel.
 - 6. Proper operating condition of engineering controls in use.
 - 7. Contractor implementation of necessary corrective measures in order to maintain personnel safety.
- C. SLGL's H&S Professional while on-site, shall perform industrial hygiene duties such as:
 - 1. Conduct air monitoring to determine airborne fiber concentrations, negative - pressure monitoring, workplace inspection, and assurance of proper work practices.
 - 2. Review of the sampling results (for sampling completed by SLGL) to review effectiveness of the Abatement Contractor's control methods and decontamination procedures.
 - 3. Perform visual inspections of the work in progress, integrity of work area barriers, use of PPE and decontamination units, and other compliance issues as outlined in this specification.
- D. Recommendations and directions pertaining to compliance with the specification shall be provided by SLGL directly to the Abatement Contractor site supervisor and shall be recorded in the H&S Professional daily log. If the Abatement Contractor is unresponsive to recommendations and directions for corrective measures, depending on the severity of the breach, a stop-work order may be issued to the foreman. Also, see Section 2.9 of the Specification.
- E. SLGL's on-site H&S Professional shall:
 - 1. be qualified and trained to perform the above SOW. SLGL's on-site H&S Professional, shall meet the requirements of an OSHA-competent person and be trained to perform and interpret necessary air monitoring.
 - 2. work under the supervision of the Project Manager and a Certified Industrial Hygienist.

3. serve as the liaison between the City of Portsmouth and the Abatement Contractor on-site personnel.
 4. schedule and coordinate weekly meetings between the City of Portsmouth, the Abatement Contractor, and SLGL to be held on-site.
- F. SLGL has been contracted by the City of Portsmouth for Project Management services. The contact person is available at the address below:
- Stephen McPherson, Project Manager
The Scott Lawson Group, Ltd.
P.O. Box 3304
Concord, New Hampshire 03302-3304
(603) 228-3610

2.9 AUTHORITY TO STOP WORK

- A. If the City of Portsmouth or SLGL presents a written or verbal stop-work order, the Abatement Contractor shall immediately and automatically stop all work. Work shall not commence until authorized in writing by the Project Manager.
- B. Stop-work orders may be issued for, but not limited to, the following:
 1. Excessive airborne fiber concentrations inside work area of 0.10 f/cc or above 0.010 f/cc outside of work area.
 2. Breaks in barriers - primary, critical, or other work area barriers.
 3. Loss of, or inadequate, negative-pressure differential in the work areas.
 4. Failure to work in accordance with the Project Specification (Specification No. 90867-SP).
 5. Other health and safety emergencies.
- C. If the Abatement Contractor is found to be in noncompliance with the Project Specification the Abatement Contractor shall receive a verbal notice with written confirmation.
 1. This written notice shall serve as the first and final warning. Should the Abatement Contractor receive a second verbal notice and written confirmation for noncompliance of these Project Specifications, the contract between the Abatement Contractor and the City of Portsmouth shall be terminated. The Abatement Contractor shall be reimbursed for any and all expenses incurred up to the day of Contract termination for services rendered to the City of Portsmouth as required in this Project Specification.
- D. The Abatement Contractor shall not hold the City of Portsmouth or SLGL responsible for damages or costs incurred by the Abatement Contractor in the event of the issuance of a stop-work order due to noncompliance with the Project Specification or conditions which may cause harm to human health or the environment.

PART 3

3.1 3.1 ABATEMENT CONTRACTOR QUALIFICATIONS

- A. The Abatement Contractor is required to be a licensed Asbestos Abatement Entity per the State of New Hampshire Asbestos Management and Control Rules, Env-A 1800(Revised).
- B. The Project Manager shall approve proposed Abatement Contractor personnel based upon, but not limited to, submission of an Abatement Contractor's certification that their personnel meet the requirements of this specification.
- C. Abatement Contractor must submit certification that the personnel:
 - 1. Regularly and presently perform Asbestos removal, as one of their principal services.
 - 2. Have technical qualifications, experience, training, and equipment to properly and safely remove ACM according to the specification and EPA, OSHA, and State regulations.
 - 3. Have State of New Hampshire certification for all personnel stating qualifications for working in Asbestos environments.

3.2 PERSONNEL

- A. Personnel to be used by the Abatement Contractor must meet the below-listed requirements. The Abatement Contractor must submit documentation which demonstrates the following:
 - 1. Foreman and supervisors:
 - a. Have training in, and knowledge of, applicable regulations and expertise in safety and environmental protection. This training and knowledge must be evidenced by successful completion of a training course offered by an EPA-endorsed institution or an equivalent training program. A course outline and certificate of completion shall be submitted.
 - b. State of New Hampshire certification is also a required qualification for foremen. A New Hampshire-licensed Site Supervisor and OSHA-competent person shall be required on-site at all time and phases during removal operations.
 - c. Submit records of evidence that proper employee medical surveillance records are maintained.
 - 2. For each worker:
 - a. Training: The Abatement Contractor is required to submit certificates signed by each employee stating
 - 1) the employee has received training from a trained instructor in the proper handling of materials that contain Asbestos.
 - 2) the employee understands the health implications and risks involved which include the illnesses possible from exposure to airborne Asbestos fibers.
 - 3) the employee understands the use and limits of the respiratory equipment to be used and also understands the results of monitoring of airborne quantities of Asbestos as it relates to health and respiratory equipment.

- b. Medical records shall be submitted to assure proper employee medical monitoring is performed.

- B. Abatement Contractor Site Supervisor: The Abatement Contractor shall provide at least one (1) New Hampshire-licensed Site Supervisor on-site for each work area and during all phases of operations. The Site Supervisor shall also be an OSHA-competent person.
- C. The Abatement Contractor shall also have backup, alternative, licensed Site Supervisors available. The names and certifications must be submitted as outlined in Section 4.3 of this document.
- D. All workers must have required State licenses and certifications. The Abatement Contractor shall submit current and valid copies of all certifications, accreditations, and licenses. All personnel must have completed all required refresher and update courses as required and must provide proof of such.

3.3 TRAINING AND MEDICAL MONITORING

- A. All personnel on-site shall have instruction on the hazards of Asbestos exposure, hazards of Asbestos and smoking, on the use and proper fitting of respiratory equipment, protective equipment and clothing, proper use of decontamination showers, proper entry and exit from work areas, and on all aspects of work procedures and protective measures.
- B. Abatement Contractor personnel must have successfully completed appropriate training courses offered by an EPA-endorsed institution or an equivalent training program. Provide proof of annual refresher courses as required.
- C. Abatement Contractor foremen shall be required to have a New Hampshire foreman/entity license.
- D. Abatement Contractor personnel must take part in an employee medical surveillance program as required by OSHA standards.
- E. All personnel must be aware of the provisions stated in this plan and instructed in all safety/work methods and procedures.
- F. Abatement Contractor personnel shall also have and show evidence of training with portable fire extinguishers. The Abatement Contractor shall reference 29 CFR § 1910.157 and incorporate this training into their Fire Prevention Plan, as required by OSHA standard 29 CFR § 1910.38.

3.4 WORKER PROTECTION

- A. Each worker shall be proficient in the use of the respirator and shall always wear a properly-fitted respirator when in the work area. Respirators shall be NIOSH-approved for the use in a regulated area. Disposable or single use, respirators are not permitted. Respirator selection shall be made according to Section 3.4 and the Abatement Contractor written Respiratory Protection Program.
- B. The Abatement Contractor shall provide on-site, a sufficient quantity of NIOSH- approved respirator filters for Asbestos so that the workers may change filters during the working day. The respirator shall be rinsed and filters disposed of each time the worker leaves the work area. The respirators may be stored in the Change Room and shall be totally protected from exposure to Asbestos prior to their use.

- C. The Abatement Contractor shall provide, for the workers' use, disposable full-body coveralls and disposable head and footwear covers for the work area. Footwear may be reusable, in which case, it should be left in the equipment area and disposed of as waste at the end of the project.
- D. In addition, all personnel on-site must use:
 - 1. Safety glasses/goggles (full-face, negative-pressure or full-face, PAPR acceptable).
 - 2. Hearing protection as required or necessary.
- E. The type, erection, and use of ladders, staging, manlifts, and scaffolding shall be in strict compliance with all applicable OSHA provisions.
- F. All workers, without exception, shall:
 - 1. Remove street clothes in Clean Room of the Personal Decontamination Unit (PDU), when entering the work area. A clean respirator with new cartridges must be donned at this time.
 - 2. When exiting the work area, HEPA-vacuum all gross debris from protective clothing. Workers shall then proceed to the Dirty Room of the PDU, remove disposable clothing and dispose of in proper waste receptacles.
 - 3. Still wearing the respirator, proceed to the shower. Care must be taken to follow reasonable procedures in removing respirator and filters to avoid inhalation of Asbestos fibers while showering.
 - 4. Workers shall not eat, drink, smoke, chew gum, or tobacco in work areas.
 - 5. Also see Section 5.4, Worker Decontamination.
- G. Respirators, disposable coveralls, head covers, footwear covers, soap, and towels shall be provided by the Abatement Contractor to authorized personnel who may need access to the work area.
- H. The Abatement Contractor shall be responsible for providing a plan for emergency exit routes, emergency retrieval, and decontamination of injured.
- I. Abatement Contractor shall provide on-site copies of all required safety and health plans and contingency plans, required worker certification and documentation, copies of personnel sampling and exposure documentation, copies of this specification, and other pertinent information.
- J. The Abatement Contractor shall post emergency phone numbers and addresses at the Decontamination Units and other areas deemed necessary by SLGL.
- K. MSDS' and the Abatement Contractor's written Hazard Communication (HazCom) Program shall be maintained on-site for materials used by the Abatement Contractor.
- L. All transport containers or temporary storage containers shall be appropriately labeled including list of any hazardous contents.
- M. See Section 2.6, Other Site Safety Considerations, and Section 3.6, Respiratory Protection.

3.5 FIRE SAFETY/PREVENTION:

- A. The Abatement Contractor shall have a site-specific plan on-site for preparedness in the event of a fire.

1. The employer/Abatement Contractor must first identify what level of fire on-site personnel are capable of extinguishing or at what point Abatement Contractor personnel shall consider the fire too great to extinguish and evacuate the work area.
- B. Noncontractor emergency response personnel shall be required to wear SCBA in the event of a fire, which the Abatement Contractor is not capable of extinguishing.
 1. In the event of such a fire, all workers and personnel within the work area shall immediately evacuate the containment. Powered air-purifying respirators (PAPRs) worn for respiratory protection shall be turned off so as not to inhale/ingest smoke or toxic fumes set off from smoldering/burning polyethylene and/or building materials.
- C. Abatement Contractor personnel shall cut off electrical power to the work area to prevent the air-filtration units from increasing the velocity of the fire. In such an event, adequate emergency lighting shall be present to illuminate exit paths and exits.

3.6 RESPIRATORY PROTECTION

- A. All on-site workers must have been given medical examinations as described in OSHA and EPA regulations. These records must be submitted as outlined in Section 4.3.
- B. The Abatement Contractor must comply with applicable provisions of U.S. Department of Labor, OSHA codes and regulations and not limited to Title 29, Part 1910, Section 134 of the Code of Federal Regulations.
- C. Respiratory protection shall be selected and worn in accordance with the Abatement contractor Respiratory Protection Plan.
- D. Half-face, negative-pressure respirators equipped with HEPA filters and protective coveralls shall be used as a minimum level of protection during containment preparation activities.

PART 4

4.1 APPLICABLE CODES.

- A. The Abatement Contractor shall assume full responsibility and liability for the compliance with all applicable and current Federal, State, and local regulations pertaining to all work/abatement practices and procedures. The Abatement Contractor shall hold the owner and owner's representative harmless for failure to comply with any applicable work, hauling, disposal, safety, health, or other regulation on the part of himself, his employees, or his Subcontractors.

4.2 NOTICES AND PERMITS

- A. Prepare and send Notifications to Federal, State, and local agencies in writing within one (1) week of receipt of notice of contract award.
 1. A copy of all prepared notifications shall be faxed to:
Stephen McPherson, Project Manager
The Scott Lawson Group, Ltd.
P. O. Box 3304
Concord, New Hampshire 03302-3304
Phone: (603) 228-3610 Fax: (603) 228-3871

B. State and Local Authorities:

1. Appropriate notification shall be sent to New Hampshire Air Resources Agency, 6 Hazen Drive, Concord, New Hampshire, 03301, Telephone (603) 271-1370.
 - a. New Hampshire Air Resources Agency shall be notified at least 10 working days prior to the Asbestos project.
2. As per New Hampshire Asbestos Management and Control, Chapter Env-A 1800 requirements, notify the the City of Ports mouth, Health Officer.
3. Prior to commencement of work, notify local emergency authorities including, but not limited to, fire, police, and medical services, of the site location, schedules of work and hazards anticipated.

C. Modify notifications and re-notify above agencies as required during the course of work and as necessitated due to modifications to the SOW and/or work procedures.

4.3 SUBMITTALS

- A. Unless specified otherwise, contract submittals shall be submitted to the Project Manager. All submittals listed below must be made no later than 10 working days after verbal and facsimile notification of contract award.
- B. Submit the required preconstruction submittals as follows:
 1. A copy of the EPA/State/local notification and a copy of the signed hauler and landfill permits.
 2. Sufficient proof that all required permits, site location, routing, and other arrangements for transport and disposal of ACM or contaminated materials and supplies have been properly obtained.
 3. Documentation indicating that each and every employee has had instruction on the hazards of Asbestos exposure, the use and proper fitting of respiratory equipment, on protective equipment and clothing, the use of showers, on proper entry and exit from work areas and all aspects of work procedures and protective measures before the start of work. Documentation of medical surveillance shall be submitted for any on-site personnel to ensure proper employee medical monitoring is performed.
 4. Documentation before the start of work certifying that all workers employed in Asbestos-related aspects of the job have had medical examinations according to Section 1910.1001 or Section 1926.58 of OSHA regulations. This certificate must be signed by a physician indicating that he has reviewed the medical background of the employee and that the employee is medically fit to wear a respirator. Medical records are not to be submitted and shall not be accepted.
 5. Examples of previous worker exposure and monitoring documentation to document Abatement Contractor compliance with OSHA monitoring requirements. Submit exposure monitoring representative of workers to be used on-site during the project.
 6. MSDS' for all materials to be used on-site such as encapsulants, spray adhesives, etc. In addition, the Abatement Contractor's written Hazard Communication Program shall be submitted and provided on-site during operations.
 7. Contingency plan for emergencies including fire, accident, power failure or any other event that may require modifications or abridgments of decontamination or

work area isolation procedures or integrity. Include specific procedures for decontamination or work area isolation in plan. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency.

8. Detailed plan of action including work for each work area, containment configurations, location(s) of windows into the work area, decontamination unit locations and air-filtration/pressure differential systems design (include trap locations, exhaust points, and calculations for achieving necessary air changes).
 - a. Detail exact location of temporary barriers, type of construction, and plan of action for the construction of barriers. Detail general progress and milestones on the schedules and include substantial and final completion dates. Schedules shall include and detail time, for SLGL inspections and air testing.
 - b. Plan of action (work plan) must detail locations of all containments and sequencing of work. The plan of action must be in both writing and in the form of a bar chart. Plan of action shall also include proposed waste handling procedures including temporary storage, transportation, final disposal, and applicable schedules.
 - c. Plan of action is subject to review and approval by the Project Manager and the City of Portsmouth. Abatement Contractor must revise and modify plan of action as needed such that approval is obtained prior to work.
 9. Name and address of the laboratory to be used by the Abatement Contractor for OSHA-compliance monitoring. Include proof of American Industrial Hygiene Association (AIHA)-accreditation
- C. The below-listed, post-abatement submittals shall be submitted prior to final project close-out. Final payment per Contract Documents, to the Abatement Contractor shall not be made until these documents have been submitted and SLGL has reviewed and approved the post-abatement submittal documents.
- a. Ongoing submittals may be required as each phase of work is completed and payments are requested.
- D. Submit the following post-abatement submittal documentation:
1. A copy of the waste shipment record, signed by the disposal site operator, indicating the waste was disposed of properly. Waste manifest must be received for all waste within 35 days from the transport off the site.
 2. Copies of analytical reports and exposure calculations for the personal air samples collected by the Abatement Contractor. All daily sample records must be submitted.
 3. Copies of daily logs indicating workers used on-site, authorized and unauthorized site visitations, and waste material removed from containment area(s) and site. Detail account and description of any unusual events or accidents.
- E. Submittal packages shall be in a neat and orderly fashion shall include an index and shall be compiled in the order as requested. Clearly mark and label all sections of the submittal packages.
- F. Submittals received which do not meet the above requirements shall not be accepted and shall be returned without action.

4.4 EQUIPMENT, SUPPLIES, PROVISIONS

A. To be provided by the Abatement Contractor:

1.

1. Polyethylene Sheeting: 6-millimeters (6-mm) minimum thickness unless otherwise specified.
2. Tape: 2"-3" Fiberglass-reinforced duct tape suitable for securing polyethylene.
3. Glove bags: Minimum thickness of 6-mm polyethylene sheeting, with two (2) sealed inward projecting long-sleeved gloves, preprinted warning labels, equipped with tool pouch, and designated sleeve locations for HEPA-vacuum and water sprayer.
4. Wetting Agent (surfactant).
5. Asbestos Waste Receptacles: Labeled Asbestos disposal bags or fiber drums. Six (6)-mm liners for the handling, transportation, and disposal of Asbestos waste materials. Any waste container shall be double-bagged or lined for disposal, sealed, secured, and individually labeled with required warnings.
6. Spray Equipment: Airless spray units are required for application of amended water.
7. Disposable coveralls and boots: Constructed of Tyvek® (or equivalent) material, head cover and gloves. Coveralls shall be a minimum of XXL or XXXL in size.
8. Respiratory protective equipment of sufficient protection value based on anticipated exposure levels during removal and according to Section 2.5 of this document.
9. General Construction and Asbestos Danger Signs as outlined in Section 4.5 and 5.6 of this document.
10. HEPA vacuum: Wet/dry capable. HEPA-filtered air-filtration units: Microtrap, Red Baron, or equivalent.
11. Air-filtration/pressure-differential equipment shall be equipped with the warning lights, alarms, and magnahelic gauges. Equipment shall be clean of all visible debris and fully operational when arriving on-site. Equipment found to be in a state of disrepair or not fully operational shall not enter the facility. This decision shall be made by SLGL's on-site representative.
12. First Aid Kits: To be provided in each working area.
13. Note: Employees shall be apprised of health hazards associated with Bloodborne Pathogens (BBP), and the necessary steps to minimize and control BBP exposures.
14. Fire Extinguishers: Comply with the applicable recommendations of National Fire Protection Association (NFPA) standard 10, Standard or portable fire extinguishers. Locate fire extinguishers where they are most convenient and effective for their intended purpose but provide no less than four (4) extinguishers in each main work area at the dirty side of the decontamination unit and one (1) at the clean side of the decontamination unit. The Abatement Contractor shall also reference and comply with 29 CFR § 1926.150.
15. Pressure-differential monitor, equipped with an audible alarm and strip chart or graph, for Phase's I & II.
16. All equipment brought onto the project site shall be subject to visual inspection by SLGL. Equipment shall be in a clean and/or sealed state prior to being allowed into the work area.

4.5 GENERAL PREPARATION REQUIREMENTS

- A. An initial progress meeting, recognized as "Preconstruction Conference," shall be convened by the Project Manager prior to start of any work. The Abatement Contractor and their project supervisor shall meet at the project site, or as otherwise directed, with the the City of Portsmouth representatives, SLGL's Project Manager and on-site H&S Professional and other entities concerned with the Asbestos abatement work. It is required that the Abatement Contractor supervisor/foreman attend this meeting.
1. Seventy-two (72) hours advance notice shall be provided to all participants prior to convening Preconstruction Conference.
 2. This is an organizational meeting to review responsibilities and personnel assignments and to locate the containment and decontamination areas and temporary facilities including power, light, water, etc.
 3. Other items to be discussed shall include, but not be limited to:
 - a. Twenty-four (24) hour phone numbers of the SAU, SLGL's Project Manager, and Abatement Contractor's administrator and on-site supervisor/foreman and office.
 - b. Unauthorized entry areas of the site and building.
 - c. New Hampshire certification of all workers and the establishment of a log of all parties entering the containment area.
 - d. Location of area where the Project Specification shall remain throughout project.
 - e. All submittals required by this specification in Section 4.3 for documentation of training, respirator fit, permits for removal and disposal, result of air monitoring from previous removal jobs of a similar nature and documentation of medical monitoring shall be submitted to the Project Manager. Work shall not be allowed to begin until all documentation is submitted.
 - f. Phasing requirements and scheduling restrictions for each work area.
 - g. Other project considerations and specifics.
- B. SLGL's on-site H&S Professional and the Abatement Contractor site supervisor shall perform a walkthrough of the work areas to note existing conditions of all wall, floor and other surfaces. This documentation shall be used during the final walkthrough of the work areas to generate punch list items and damages. The Abatement Contractor is responsible for repairing all damages and all costs associated with damages shall be the sole responsibility of the Abatement Contractor.
1. SLGL and the City of Portsmouth reserve the right to videotape any and all abatement activities and its subsequent uses of the tape(s).
- C. Asbestos abatement work shall not commence until:
1. Arrangements have been made for disposal of waste.
 2. Tools, equipment, and waste receptors are on hand.
 3. Arrangements have been made for building security.
 4. Signs are displayed in all areas where entry to the work area is possible. Such signs shall read:

**DANGER
ASBESTOS**

Cancer and Lung Disease Hazard
Authorized Personnel Only

Respirators and Protective Clothing Required in This Area.

5. All work of Section 5.6, Work Area Preparations, is completed and SLGL's on-site H&S Professional conducts an inspection of the containment and/or work areas. If the areas pass this inspection, a commencement form shall be signed by SLGL's on-site H&S Professional and the Abatement Contractor's foreman. Only after this form is signed shall Asbestos abatement work start.
 6. Project Manager's formal approval (in writing) of any deviation of methods and procedures from this document to be utilized by the Abatement Contractor has been obtained. Any methods and procedures not specifically outlined in detail in this Project Specification must be submitted to the Project Manager in writing for approval. The Project Manager shall be allowed, at a minimum, 72 hours to review and approve or disapprove requests.
 7. Establish a sign-in, sign-out log for the site. This site log shall be used by all persons entering/exiting the site at any time.
 8. Review and acceptance of all required preconstruction documents. Provide a daily log to be maintained within the decontamination units documenting the dates and times of, but not limited to, the following items:
 - a. Visitations: authorized and unauthorized personnel.
 - b. Special or unusual events, including slips/falls and /or any injuries.
 - c. Documentation and records of SLGL inspections and clearance testing, stage of work and removal of waste from area.
- D. Clearly demarcate emergency escape routes in the containment work areas.

PART 5

5.1 AIR MONITORING REQUIREMENTS

- A. Abatement Contractor Provided:
 1. Air monitoring and laboratory testing pertaining to section 1910.1001 and 1926.1101 of the OSHA regulations is the responsibility of the Abatement Contractor and the cost involved shall be included in the bid.
 2. Personal air samples shall be collected by the Abatement Contractor throughout the entire Asbestos removal operation and project decontamination. This shall be conducted to ensure compliance with the OSHA regulations. Such sampling shall be in strict compliance with applicable OSHA standards including, but limited to, 29 CFR §1926.1101. All work of this nature must be conducted by an OSHA-competent person trained in the collection of personal air sampling. The Abatement Contractor shall continuously review and post results of personal air monitoring throughout the project to determine levels of PPE necessary.
 3. The Abatement Contractor shall be responsible for the cost of TEM analysis conducted by SLGL which is required to document situations arising out of negligence and/or noncompliance with this document. The Abatement Contractor shall bear the cost for rush turnaround analyses of TEM samples collected. SLGL reserves the right to select the TEM laboratory based upon the qualifications and NVLAP-accreditation status.
- B. City of Portsmouth Air Monitoring Provided

1. Air monitoring and analysis which is the responsibility of the City of Portsmouth shall be conducted by SLGL's on-site H&S Professional.
 2. SLGL's on-site H&S Professional shall conduct air monitoring as follows:
 - a. Background samples shall be collected to establish a baseline fiber count for each work area prior to any removal or decontamination work. Analysis shall be performed utilizing PCM. All background samples shall be retained by SLGL until project completion.
 - b. Daily samples shall be collected outside the work area during all phases of work with acceptable levels being less than 0.010 fibers per cubic centimeter (< 0.010 f/cc). This shall include sampling at the exhaust of the HEPA ventilation units during abatement operations. Sampling shall be conducted in areas adjacent to the work area, and shall be isolated from the areas under general construction. Spot sampling inside the work area, prior to establishment of negative-pressure enclosures, with acceptable concentrations being equal to or < 0.010 f/cc. If concentrations exceed 0.010 f/cc, engineering controls shall be modified to reduce concentrations. Spot sampling inside the work area, after establishment of negative-pressure enclosures, with acceptable concentrations being equal to or less than 0.10 f/cc. If concentrations exceed 0.10 f/cc, engineering controls shall be modified to reduce concentrations. After all cleaning work is completed in contaminated work areas and the area has passed a visual inspection as described in Section 5.2, collect air clearance samples according to Section 5.2 and 6.2 and the requirements of the AHERA regulation.
 3. Daily air samples shall be analyzed utilizing Phase Contrast Microscopy (PCM) in accordance with the NIOSH Analytical Method 7400. Unless otherwise stated, results shall be available within one (1) working day and shall be reviewed by the Project Manager, SLGL's on-site H&S Professional, and Abatement Contractor foreman.
 4. Additional air monitoring requirements are as follows:
 - a. High-volume pumps shall be calibrated using primary standard at approximately 10-15 liters per minute (10-15lpm).
 - b. Low-volume pumps shall be calibrated using primary standard methods at approximately 2 lpm. All pumps utilized shall be calibrated before and after each sampling period in the field using secondary standard methods (rotometer) calibrated using primary standard methods and field calculations shall be determined using a graphed correlation curve.
 - c. All air monitoring shall be conducted according to current industry and regulatory standards, and supervised by a Certified Industrial Hygienist (CIH).
- C. The top-end filter concentration level outside the work area during all phases of work is 0.010 f/cc as determined by PCM analysis. This shall also include samples collected at the exhaust of the HEPA ventilation units during the performance of work and samples collected in the Clean Room of the decontamination unit. If concentrations meet or exceed the top-end level or if results indicate leakage of fibers outside the work area, the Abatement Contractor, in consult with the Project Manager and SLGL's on-site H&S Professional, shall cease removal and decontamination work, identify the causes or locations of tile leakage and correct the situation before proceeding with further work. If problems are apparent, more frequent testing shall be required.

5.2 CLEARANCE CRITERIA AND INSPECTION

- A. Removal and decontamination shall be considered complete when all of the below-listed clearance criteria have been met and confirmation is provided by SLGL's on-site H&S Professional. The clearance criteria for this project includes the following as specified by the Asbestos Hazard Emergency Response Act (AHERA) regulation, 40 CFR § 763:
 - 1. Each work area must pass the final visual inspection by SLGL's on-site H&S Professional as described in Section 6.2.
 - 2. Each of the inside containment air samples (minimum of 5) collected for clearance purposes and analyzed using Transmission Electron Microscopy (TEM) are below 70 structures per square millimeter(70 s/mm²) or pass the Z-test criteria as applicable except where analysis by Phase Contrast Microscopy (PCM) is permitted.
- B. All clearance testing and inspections shall be conducted by SLGL.
- C. Air samples collected for clearance purposes shall be collected and analyzed in accordance with applicable Federal and State requirements in addition to the air monitoring requirements stated in Section 5. 1. Air clearance samples taken inside the containments shall be collected using aggressive sampling techniques as described in Appendix A to Subpart E of the AHERA Regulation.

5.3 DECONTAMINATION UNITS-MAIN CONTAINMENTS, PHASES I & II

- A. Provide separate structural personnel and equipment decontamination units, if necessary. The Personal Decontamination Unit is the only means of ingress and egress for personnel to the work area. All materials exit the work area through the Equipment Decontamination Units.
- B. Provide structural decontamination units consisting of a serial arrangement of connected rooms or spaces-Clean Room, Shower Room, Dirty Room. Require all persons, without exception, to pass through the Personal Decontamination Unit for entry into and exit from the work area for any purpose. Do not allow parallel routes for entry or exit. Do not remove equipment or materials through Personal Decontamination Unit.
- C. Each of the sections of the decontamination unit, clean room, shower, and dirty room, shall be separated from each other by at least 2 overlapping sheets or door flaps. At a minimum, each sheet shall be constructed with polyethylene sheeting, at least 6-mm in thickness.
- D. Seal all polyethylene sheeting, seams and joints with duct tape and spray adhesive. Provide a minimum 12-inch overlap for all joints in polyethylene sheeting.
- E. Provide air movement (and pressure differential) and filtration as required in Section 5.5. Design air-movement/pressure-differential systems such that airflow is from the Clean Room towards the Dirty Room and from the Dirty Room towards the work area.
- F. Clean Room: Provide a Clean Room that is physically and visually separated from the rest of the building for the purpose of changing into protective clothing prior to entering the work area and changing into street clothing when exiting the work area and after complete showering in the Shower Room.
 - 1. Locate the Clean Room so that access to the work area is in the following order: from the Clean Room, through the Shower Room, through the Dirty Room, and then into the work area. Construct the Clean Room using two (2) layers of polyethylene sheeting, at least 6-mm in thickness, to provide an airtight seal between the Clean

Room and the rest of the building. Construct a flapped doorway for entrance to and exit from the Clean Room utilizing two (2) layers of 6-mm polyethylene sheeting.

2. When entering the work area, require workers to remove all street clothes in the Clean Room, dress in clean disposable coveralls, and don respiratory protection equipment. Do not allow Asbestos-contaminated items to enter this room. Require workers to enter this room either from outside the structure dressed in street clothes or naked from the showers.
- G. Shower Room: A completely watertight, portable shower shall be provided and shall be located between the Clean Room and Dirty Room such that access to the Shower Room is through the Clean Room or Dirty Room only. Provide an airtight seal between the Shower Room and the remaining building.
1. Construct the Shower Room walls and ceiling in a manner similar to the construction used for the Clean Room. Temporary hook-ups for hot and cold water shall be made so that the shower is operable and with a sufficient drainage system.
 2. Provide necessary extensions, shower heads, and controls for a complete and operable shower. Provide soap and soap dish.
 3. Provide 20-, 10-, and 5-micron waste-water filters in line. Change filters daily or more often if necessary. Locate filters inside the Dirty Room so that water lost during filter changes is caught by a waste bag. Shower water cannot be bagged and disposed of as Asbestos waste, however, it may be used to keep the Asbestos materials removed in the work area wet.
- H. Dirty Room: The equipment area, or Dirty Room, shall be for the purpose of removing contaminated protective clothing.
1. Construct the Dirty Room using two (2) layers of polyethylene sheeting, at least 6-mil in thickness, to provide an airtight seal between the Dirty Room and the rest of the building. Locate the Dirty Room so that access to the Clean Room from the Dirty Room is through the Shower Room and so that exit from the work area shall be through the Dirty Room and into the Shower Room.
 2. Construct a flapped doorway for entrance and exit utilizing two (2) of 6 mil polyethylene sheeting. Provide an airtight seal between the Dirty Room and the rest of the building. The Dirty Room shall be constructed in a manner similar to the Clean and Shower Rooms prior to installing polyethylene sheeting.
 3. The Abatement Contractor shall provide a receptacle in the equipment area for disposal of protective clothing. Protective clothing to be disposed of shall be treated as Asbestos waste.
- I. Provide a drop cloth in each room of the decontamination units on a per shift basis. Clean debris and residue from inside the decontamination units on a daily basis or as otherwise stated by the SLGL. Damp-wipe all surfaces after each shift change and clean debris from shower pans on a daily basis and as debris accumulates.

5.4 WORKER DECONTAMINATION

- A. When exiting the work area, all workers, without exception, shall HEPA-vacuum all gross debris from their protective covering prior to entering the Dirty Room.

- B. When in the Dirty Room, remove work clothing, disposable coveralls, and footwear. Do not remove respiratory equipment. Extra work clothing may be stored in this area. Any work clothing brought to the work area shall be disposed of as Asbestos waste.
- C. Disposable coveralls shall be placed in a bag for disposal with other Asbestos materials.
- D. Showering is mandatory. Still wearing respirators, proceed to showers.
- E. Care must be taken to follow reasonable procedures in removing the respirator and filters to avoid Asbestos fibers while showering. The following procedure is required as a minimum:
 - 1. Thoroughly wet body from neck down. Wet hair as thoroughly as possible without wetting the respirator filter if using an air-purifying-type respirator.
 - 2. Take a deep breath, hold it and/or exhale slowly, complete wetting of hair thoroughly wetting face, respirator and filter (air-purifying respirator). While still holding breath, remove respirator and hold it away before starting to breathe.
 - 3. Dispose of wet filters from air-purifying respirator.
 - 4. Carefully wash face piece of respirator inside and out.
 - 5. Shower completely with soap and water.
 - 6. Rinse thoroughly.
 - 7. Rinse Shower Room walls and floor prior to exit.
- F. Proceed from shower to Clean Room area and change into street clothes.
- G. Refer to Section 5.3 for decontamination unit construction specifics.

5.5 AIR MOVEMENT/FILTRATION REQUIREMENTS

- A. The Abatement Contractor shall provide a fully operational pressure-differential and air-filtration system within the work area, including the decontamination units, continuously maintaining a pressure-differential across the work enclosure of the least 0.04 inches of water.
 - 1. This pressure-differential and air-filtration system shall aid in containing the Asbestos fibers in the work area and preventing contamination of the non work areas.
 - 2. The pressure-differential/air-filtration system shall be equipped with HEPA filters and comply with ANSI Z9.2, Standard Local Exhaust Ventilation. No air movement or ventilation systems shall discharge Asbestos fibers outside the work area. Filtered air shall be exhausted outside of the building whenever possible to maintain the negative-pressure in the work area.
- B. Provide a sufficient number of HEPA-equipped air movement units such that at least one (1) air change is made every 7.5 minutes in Phases I&II. The Abatement Contractor shall utilize make-up air intakes to adequately filter the air in the work area. Air intake and exhaust shall be through perimeter windows replaced with 1/2" plywood sheets, secured in a manner such that the plywood shall be secure throughout the duration of the abatement.
 - 1. Prior to removal or decontamination work, demonstrate to SLGL, the pressure-differential by use of a pressure-differential meter equipped with an audible alarm and strip chart or graph. SLGL must approve the pressure-differential and air-filtration system design.

2. Systems design must be included with the Abatement Contractor Submittal as required in Section 4.3 and identified on the shop drawings. The Abatement Contractor shall provide documentation of calibration of the pressure-differential meter to SLGL.
- C. Additional HEPA-equipped air units must be available in case of equipment failure.
- D. At a minimum, a pressure-differential of negative 0.04 inches of water shall be maintained in the work area relative to the non work area portions of the building. The Abatement Contractor shall be responsible for making determinations of the pressure-differential, within the work area prior to, during, and at the completion of each work shift. Maintain adequate air flow and pressure-differential and air-filtration in the work area until all decontamination work is complete and a containment clearance form has been issued by SLGL.

5.6 WORK AREA PREPARATION

- A. The work areas are to be considered contaminated during work and shall be completely isolated from other parts of the building or area so that Asbestos fibers cannot pass beyond the work area and into the non work areas.
 1. Should the area or areas beyond the work area become contaminated with Asbestos fibers as a consequence of the work, the Abatement Contractor shall be responsible for cleaning, on a daily basis, those areas affected. All costs incurred in cleaning, decontaminating, and verifying clearance of non work areas under these circumstances shall be borne by the Abatement Contractor.
- B. General Preparation Requirements: Carry out work of this section sequentially. All provisions of this Project Specification and Contract Drawings apply to work of this section. the City of Portsmouth and the Abatement Contractor shall coordinate the Lockout/Tagout (LO/TO) procedures to prevent accidental energization of equipment.
 1. Disable ventilating systems or any other system bringing air into or out of the work area. Where possible, disable system by disconnecting wires, removing circuit breakers by lockable switch, or other positive means that shall prevent accidental premature restarting of equipment. All HVAC work/modifications must be approved by the City of Portsmouth.
 2. All tools, scaffolding, staging, etc., necessary for work shall be placed in the area to be isolated prior to erecting the temporary plastic sheeting enclosure.
 3. Lockout power to work area or circuits running through the work area wherever possible by switching off all breakers or removing fuses serving these circuits.
 4. The work area shall be sealed off with critical barriers consisting of two (2) layers of polyethylene sheeting, each at least 6-mm thick, sealed at all entrances and exits to the work area. Sheeting shall be secured using duct tape or mechanical supports, if deemed necessary by SLGL.
 5. Note: The Abatement Contractor shall not use spray glue to attach any of the required polyethylene sheeting to any of the wall or other surfaces within the school, without prior approval from the City of Portsmouth.
 6. Provide warning signs in occupied areas at each door leading to the work area and along the perimeter of the work area reading as follows:

**KEEP OUT
CONSTRUCTION WORK AREA
PROTECTIVE CLOTHING REQUIRED BEYOND THIS POINT**

7. The Abatement Contractor must provide a Lexan, or equivalent, observation window to the work area in Phases I& II. The location of the observation windows will be determined at the Pre-Construction Meeting and/or by SLGL.
8. Warning signs are required at each entrance to the work area. The Abatement Contractor is to make sure they remain in place. In the event that any signs need replacing, the Abatement Contractor shall be responsible. The warning signs are to be approximately 20" x14" and shall display the following legend:

**DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA**

9. Before proceeding beyond this point in work area preparations, provide respiratory protection per Section 3.4, Respiratory Protection, and provide personnel decontamination per Section 5.3, Decontamination Units.
10. Seal all openings in the work area with critical barriers such that the work area is completely separate from other portions of the building.
 - a. Seal all doors, windows, cracks, and openings with duct tape, and two (2) layers of 6-mm polyethylene sheeting. The integrity of all barriers must be maintained by the Abatement Contractor during all phases of operation.
11. Individually seal all ventilation openings (supply and exhaust) with two (2) layers of 6-mm polyethylene sheeting, taped securely in place with duct tape.
12. Provide pressure-differential/air-filtration systems per Section 5.5, Air Movement/ Filtration Requirements.
13. Conduct pre cleaning of all equipment and surfaces in the work area utilizing HEPA vacuums and wet-wiping. Use care not to damage surface areas or any furniture and equipment in the work area. The Abatement Contractor shall be held responsible for damages which occur during pre cleaning operations.
 - a. Note: the City of Portsmouth shall remove all removable materials and equipment deemed non contaminated from the work area prior to the start of work. These materials include, but are not limited to: books and book racks, computers, furniture, desks, chairs, and demountable partitions not secured to floor and ceiling surfaces.
14. After this portion of pre cleaning has been completed, SLGL shall visually inspect the work area.
15. After pre cleaning has been completed, the Abatement Contractor shall completely cover all remaining furniture, equipment, walls and other materials remaining in the work area with two (2) layers of polyethylene sheeting at least 6-mm thick and securely seal the polyethylene sheeting with duct tape.
 - a. Walls to be covered with polyethylene sheeting which are greater than 10 feet high must have mechanical supports for the polyethylene sheeting independent of duct tape. Support methods must be approved by SLGL.

16. Smoke and heat detectors shall be deactivated by an authorized SAU52 representative, certified to perform deactivation of units.
 - a. Note: the City of Portsmouth shall contact the local authorities, City Health Officer, and Fire Department Chief with regard to smoke and heat detectors. The Abatement Contractor shall coordinate all work which may impact smoke or heat detectors. All work of this nature shall be subject to approval by the City of Portsmouth and SLGL.
17. The Abatement Contractor shall also be responsible for the securing and/or temporary support of all cables, wires, etc. found in the work area. Support shall be provided by wire ties or other approved method. Duct tape alone shall not be used to provide support for cables, wires, etc. The Abatement Contractor shall be responsible for all damages to these items.

PART 6

6.1 EXECUTION OF ASBESTOS REMOVAL WORK

- A. All provisions of this Project Specification and Contract Drawings apply to the work of this section. Previous work to have been completed prior to the start of work of this section includes, but may not be limited to, Sections 4.2,4.5, 5.3, 5.4, 5.5, and 5.6.
- B. Work of this section shall not commence until verification is made by SLGL's on-site H&S Professional that all necessary work area preparations have been completed. Progress and schedule of all removal work must be reviewed and approved by SLGL's on-site H&S Professional.
- C. The Abatement Contractor shall maintain all containment barriers and other work area preparation requirements until all work of Section 6.1 and 6.2 has been completed and SLGL's on-site H&S Professional provides written confirmation that the clearance criteria has been met as stated in Section 5.2.
- D. Provide a secondary barrier (drop-cloth layer) over the floors and/or over primary barriers on the floors in all areas where removal is to take place. This barrier shall be removed at the end of each work shift or as work in an area is completed.
- E. To remove Suspended Ceiling Tiles:
 1. Wet ceiling tiles with a mist of amended water, allowing for sufficient time for the water to penetrate the tiles. Do not over saturate and cause excess dripping or water build-up on the floor surface. Water atomizing devices, commonly termed "mistifiers" shall be utilized by the Contractor during Asbestos removal and fine cleaning phases to provide further dust control protection in the work area. The mister should be supplied with amended water and be in operation continuously during these phases.
 2. Ceiling Tiles shall be removed intact and immediately placed into disposal bags to reduce handling and breakage airborne fiber levels.
 3. Seal penetrations above ceilings with polyethylene sheeting after verification by SLGL's H&S Professional that the surface area has been cleaned of all visible debris.
 4. Upon completion of removal, the Abatement Contractor shall clean and decontaminate all surfaces in the immediate work area. Decontamination shall consist of HEPA-vacuuming and wet-wiping techniques.

5. The Abatement Contractor shall be responsible for removal and disposal of all ceiling tiles and fiberglass batting in the work area.
 6. The Abatement Contractor is responsible for coordinating deenergizing and lockout/tagout activities with the City of Portsmouth, and providing adequate and safe illumination of the work areas.
- F. The Abatement Contractor shall remove Pipe Fitting Insulation after removal of ceiling tiles and fiberglass batting insulation. The Abatement Contractor shall carefully remove the adequately wetted, pipe fitting insulation materials and then place immediately into an Asbestos disposal bag.
- G. Collect all waste material generated during the cleaning and transport it out of the work area enclosure according to appropriate Asbestos waste-handling procedures and schedules approved by the City of Portsmouth and SLGL. All waste material generated during this project shall be considered and properly handled as Asbestos-containing waste.
1. Once all gross removal in the work area has been completed, clean all visible debris in the work area and on the substrate by HEPA-vacuuming, wet-wiping with amended water, and use of nylon brushes. Do not allow material to dry out.
 2. As it is handled or removed, simultaneously pack materials while still wet into disposal bags. Bags shall then be washed down in the Equipment Decontamination Unit, placed into a second disposal bag and sealed as outlined above.
 3. Waste bags shall be properly labeled and sealed according to all Federal, State, and local codes and regulations. Change all primary and secondary filters on the pressure- differential/filtration unit(s) and properly dispose of as Asbestos waste.
- H. Maintain adequate air flow and pressure-differential and air-filtration in the work area until completion of all decontamination work is complete and written confirmation has been issued by SLGL as stated in Section 5.2 and

6.2 EXECUTION OF DECONTAMINATION WORK

- A. All provisions of this Project Specification and Contract Drawings apply to the work of this section. Previous work to have been completed prior to the start of work of this section includes, but may not be limited to, Sections 4.2,4.5, 5.3, 5.4, 5.5, 5.6, and 6. 1.
- B. Work of this section shall not commence until verification is made by SLGL that all necessary work area preparations have been completed.
- C. Work of this section includes the cleaning and decontamination of all surfaces of the work area in addition to all containment barriers. Completely clean and decontaminate all Abatement Contractor equipment used during the work.
- D. Collect all waste material generated during the cleaning and transport it out of the work area enclosure according to appropriate Asbestos waste-handling procedures. All waste material generated during this project shall be considered and properly handled as Asbestos-containing waste. Waste bags shall be properly labeled and sealed according to all Federal, State, and local codes and regulations.
- E. Do not allow material to dry out. As it is handled or removed, simultaneously pack material while still wet into disposal bags. Clean the outside of the bag and move to the wash-down station adjacent to Equipment Decontamination Unit. Bags placed into the second disposal bag and sealed as outlined above. After inspecting the waste bags for

proper packaging, pass the waste bags to a worker outside (on the clean side) of the Equipment Decontamination Unit. The Abatement Contractor shall then affix the required label, identifying the Name and Address of the waste generator (The City Portsmouth, Little Harbour School, Clough Drive, Portsmouth, New Hampshire).

- F. Final Cleaning: Carry out a final cleaning of all surfaces of the work area including wall, floors, ceilings, equipment, containment barriers, decontamination units, and other items in the work area by use of HEPA vacuums and then damp-cleaning and mopping the entire work area. NOTE: Unless otherwise equipped and stated by the manufacturer, a HEPA-vacuum may fail if used with wet materials.
 - 1. Do not perform dry dusting or dry-sweeping. Use each surface of a cleaning cloth one time only and then dispose of as contaminated waste.
 - 2. Continue this cleaning until there is no visible dust and debris on the surfaces in the work area. Remove the interior layer of polyethylene sheeting and dispose as Asbestos waste, leaving only the exterior layer as a primary barrier.
 - 3. Re-clean all surfaces of the work area using HEPA vacuums and damp-cleaning and mopping methods. Change all primary and secondary filters on the pressure-differential/air filtration units and properly dispose of as Asbestos-waste material.
 - 4. Wait 48 air changes (6-hours minimum) to allow pressure-differential/air filtration units to remove airborne Asbestos fibers. Use a leaf blower and oscillating fans as necessary to assure circulation of air in all parts of the work area during this period.

- G. Visual Inspection: After the Abatement Contractor has completed a final cleaning, SLGL's on-site H&S Professional shall perform a complete visual inspection of the entire work area. If any debris or dust is found, the Abatement Contractor shall repeat the cleaning. Continue this process until no debris, dust, or other material is found during the visual inspection.
 - 1. The Abatement Contractor shall provide sufficient lighting on all surfaces in areas to be inspected. The Abatement Contractor shall provide necessary ladders, scaffolding, etc., required to provide access to all surfaces to be inspected.
 - 2. The visual inspection shall comply with the requirements set forth by the American Society for Testing and Materials under Designation: E 1368-90, Standard Practice for Visual Inspection of Asbestos Abatement Projects.
 - 3. Visual inspection is not complete until confirmed in writing by SLGL's on-site H&S Professional

- H. Upon successful completion of the visual inspection, SLGL shall conduct air clearance sampling to document the fiber concentrations within the work area and adjacent areas. See Section 5.2 of the specification for air clearance criteria.
 - 1. The air sample clearance criteria shall not be met until confirmed by SLGL's on-site H&S Professional.
 - 2. Note: Abatement Contractor shall note applicable turnaround time for analytical results for clearance sampling, especially TEM clearance samples which may take more than 24-hours to have analyzed. Allowance for this time and adequate number of air changes must be detailed in the Abatement Contractor's plan of action and work schedules to be submitted as stated in Section 4.3.

- I. Removal of Critical Barriers: Once the work area meets the clearance criteria stated in Section 5.2 and written confirmation is provided by SLGL, remove secondary and primary barriers and completely dismantle and remove the decontamination unit.
 - 1. Seal all negative-pressure units with 6-mm polyethylene sheeting and duct tape to form a tight seal at the intake and exhaust ends before units are moved from the work area. Remove all critical barriers.
- J. The Abatement Contractor shall then reclean all surfaces in the work area in the manner as the first cleaning. This cleaning is now being applied to existing room surfaces. Take care to avoid water marks or other damage to surfaces.

6.3 ASBESTOS-CONTAINING WASTE DISPOSAL REQUIREMENTS

- A. Asbestos-containing waste material and debris, which is packaged in accordance with the specification, shall be disposed of only at a landfill licensed to handle Asbestos waste. The following precautions are to be taken:
 - 1. Notify the EPA.
 - 2. Permit: Any applicable industrial waste hauler's permits must be acquired prior to transporting Asbestos-containing waste materials to a disposal site.
 - 3. The transporter must comply with applicable DOT common carrier regulations. \
 - 4. All containerized waste shall be loaded carefully onto trucks or dumpsters for transport. All containers to be used for transport of material must be lined with at least two (2) layers of 6-mm polyethylene sheeting. Care should be exercised that no unauthorized personnel have access to the material before and during loading and transport.
 - 5. Advise the landfill operator, at least 72 hours in advance of transporting the waste, as to the quantity of material being shipped.
 - 6. Storage containers (Dumpsters) which shall remain on-site must be locked, covered, and display the warning label listed at the end of this section. Dumpsters shall be placed in an inconspicuous area while on-site. Area to be designated by representatives of the City of Portsmouth.
 - 7. Label each waste bag with name of the waste generator and address of where the material was generated. Asbestos-waste bags shall also be properly marked or labeled according to OSHA, EPA, and DOT regulations which shall include, but not be limited to, the following warnings:

<p>DANGER CONTAINS ASBESTOS FIBERS AVOID CREATING DUST CANCER AND LUNG DISEASE HAZARD</p>

- B. Transportation of ACM Waste: All Asbestos waste transportation shall be in accordance with 49 CFR §173.1090 subject to the requirement of 49 CFR Section 173.5 10 49 CFR Section 172, Subparts C and D 49 CFR, Parts 171 and 172: RQ Hazardous Substance, Solid, NOS, ORM-E, NA9188 (Asbestos).
- C. Documentation and Recordkeeping

1. Transporters shall prepare and carry proper shipping papers which include the following description: "RQ -Hazardous Substance, Solid, N.O.S., O.R.M. - E. I.D. NA 9188 (ASBESTOS)."
 2. Before acceptance of waste, the transporter shall determine and acknowledge if the material has been properly wetted and contained.
 3. The transporter shall provide a chain-of-custody form to be signed by the originator or on-site representative. The form shall include:
 - a. Name and address of generator;
 - b. Name and address of pick-up site;
 - c. Estimated quantity being transported;
 - d. Type of shipping containment method used; and
 - e. Destination of waste.
 4. A copy of this form shall be maintained by the hauler and disposal site. In addition, a copy of this and other landfill certifications of receipt must be submitted to Stephen R. McPherson (Project Manager) of SLGL within 35 days from transporting waste off-site and prior to final payment to the Abatement Contractor.
- D. Spills: If more than one pound of Asbestos is spilled or leaked during transport, the vehicle owner(s) shall immediately notify the National Response Center at 1-800-424-8802.
- E. Disposal of Waste
1. Disposal is regulated under 40 CFR Part 61, Subpart M(NESHAPS), under 149-M and under the N.H. Solid Waste Rules, He-P 1901. All disposal shall be conducted in compliance with requirements of above-stated.

6.4 PROJECT CLOSE-OUT

- A. Once confirmation is provided by SLGL's on-site H&S Professional that the clearance criteria has been met, the Abatement Contractor shall completely demobilize and remove all the Abatement Contractor's materials, equipment, supplies, etc.
- B. The Abatement Contractor, SLGL, and the City of Portsmouth shall then conduct a walkthrough of the work areas to document conditions, cleanliness of the areas, and damages. This information shall be used to generate a punch list to be completed by the Abatement Contractor. A final inspection of the work shall then be conducted to confirm completion of punch list items and work. Final payments to the Contractor will not be made by the City of Portsmouth until proper completion of all punch list items.
- C. Substantial completion shall be achieved upon certification by SLGL's on-site H&S Professional that all clearance criteria for each phase of the project have been met and a final inspection of the work by SLGL's on-site H&S Professional and Abatement Contractor is completed.
- D. Final acceptance shall be achieved upon (1) final review and acceptance of all the required Abatement Contractor post-abatement submittals, and (2) review and acceptance of the Abatement Contractor's final request for payment.

END OF SPECIFICATION