



Anchorage School District

URSA MAJOR ELEMENTARY SCHOOL REPLACEMENT ITB-1-DEMOLITION

**ITB 2027-801
ASD PROJECT No. 386011**

DATE ISSUED: September 10, 2026

TABLE OF CONTENTS

DIVISION 0 - BIDDING AND CONTRACT REQUIREMENTS

00020	Invitation to Bid	2
00100	Instructions to Bidders	13
00200	Project Schedule Milestone Dates.....	1
00300	Bid Form	7
00420	Asbestos Abatement Subcontractor's Certificate of Insurance	1
00500	Owner - Contractor Agreement Form	3
00610	Bid Bond Form.....	3
00620	Performance Bond and Payment Bond	9
00630	Sample Forms and Certificates	45
00700	General Conditions of the Contract for Construction.....	66
00800	Supplementary General Conditions to the Contract for Construction	5
00820	Wage Rates	1

DIVISION 1 - GENERAL REQUIREMENTS

01010	Summary of Work	3
01045	Cutting and Patching	3
01050	Field Engineering.....	2
01070	Abbreviations and Definitions	3
01200	Project Meetings	3
01300	Submittals	2
01311	Project Schedule.....	3
01340	Shop Drawings, Product Data and Samples	5
01 35 45	Airborne Contaminant Control	5
01370	Schedule of Values.....	2
01380	Construction Photographs	2
01400	Quality Control	9
01410	Testing Laboratory Services	3
01420	Special Inspections.....	3
01450	Value Engineering	3
01500	Temporary Facilities and Controls.....	3
01502	Maintenance of Traffic	1
01580	Project Sign	3
01700	Project Close-Out	3
01710	Cleaning.....	1
01720	Project Record Documents.....	3
01 74 19	Construction Waste Management and Disposal	6
01750	Closeout Forms	16
01900	Utility Location Requirements.....	2

DIVISION 2 – EXISTING CONDITIONS

02 26 00	Hazardous Materials Assessment.....	333
02 41 00	Demolition	3
02 82 33	Removal and Disposal of Asbestos Containing Materials.....	13
02 83 33	Removal and Disposal of Materials Containing Lead.....	12
02 84 18	Removal and Disposal of Chemical Hazards	12

TABLE OF CONTENTS

SPECIAL PROVISIONS

Disadvantaged Business Enterprise Program (DBE) Special Provisions.....	5
---	---

EXHIBIT DOCUMENTS

1	Supplemental Terms and Conditions	7
2	Contract Participation Form.....	2
3	Prime Consultant/Contractor Certification	1
4	Contact Documentation Form.....	1

EXHIBIT DRAWINGS

1952 Original Construction
1983 Library & MPR Addition
1997 School Addition Record Drawings
2003 Boiler Room Building
Sample JBER Traffic Control Plan

DRAWINGS

G001	Project Title, Project Team, Project Location
G002	Drawing Indices
G010	Existing Conditions Photos
G011	Existing Conditions Photos
G012	Existing Conditions Photos
H001	Hazards Abatement Notes & Quantities
H101	Hazards Abatement Foundation – North
H102	Hazards Abatement Foundation – South
H103	Hazards Abatement First Floor – North
H104	Hazards Abatement First Floor – South
H105	Hazards Abatement Second Floor – North
H106	Hazards Abatement Second Floor – South
H107	Hazards Abatement Generator Building
H201	Hazards Abatement Reference, 1952 As-Built, Sheet M-1
H202	Hazards Abatement Reference, 1952 As-Built, Sheet M-2
H203	Hazards Abatement Reference, 1952 As-Built, Sheet M-3
H204	Hazards Abatement Reference, 1952 As-Built, Sheet M-4
H205	Hazards Abatement Reference, 1952 As-Built, Sheet M-5
H206	Hazards Abatement Reference, 1952 As-Built, Sheet M-6
H207	Hazards Abatement Reference, 1952 As-Built, Sheet M-7
H208	Hazards Abatement Reference, 1952 As-Built, Sheet M-8
H209	Hazards Abatement Reference, 1952 As-Built, Sheet M-9
H210	Hazards Abatement Reference, 1952 As-Built, Sheet M-10
H211	Hazards Abatement Reference, 2003 As-Built, Sheet C1.0
H212	Hazards Abatement Reference, 2003 As-Built, Sheet M2.1
C001	Legends, Notes, and Abbreviations
C100	Overall Demolition Plan

TABLE OF CONTENTS

C101	Demolition Plan – East
C102	Demolition Plan – West
C103	Excavation and Grading Plan
C104	Excavation Sections

INVITATION TO BID (ITB) NUMBER: 2027 - 801
Ursa Major Elementary School Replacement ITB-1-Demolition

Sealed bids will be received in accordance with the time schedule shown below by the Anchorage School District, Purchasing Department, located at 4919 Van Buren Street Anchorage, Alaska 99517 for Ursa Major Elementary School Replacement ITB-1-Demolition per the attached Instructions to Bidders, General Conditions, Technical Specifications, Drawings and Bid Form.

ESTIMATED CONSTRUCTION COST: Between \$5,000,000 - \$10,000,000

On-Site Visit:	September 14, 2026 at 11:00 a.m. Local Time
Pre-Bid Conference:	September 15, 2026 at 11:00 a.m. Local Time
Bid Opening:	October 1, 2026 at 2:00 p.m. Local Time

At the above indicated time, the bids will be opened publicly and read. Bids received by the Purchasing Department after the time fixed for opening of the bids will not be considered. Time of receipt will be as determined by the time stamp at the Purchasing Department.

DOCUMENTS:

Prospective bidders may obtain copies of bidding documents at the Anchorage School District website <http://www.asdk12.org/depts/purchasing/PurchasingBids.aspx> Only electronic versions of this ITB are issued.

A copy of the current plan holder's list can be viewed at:
http://apps.asdk12.org/depts/purchasing/meeting/Plan_Holders/2027/801.xlsx

NOTICE TO BIDDERS:

A bid bond in the amount of five (5%) percent of the total amount of the base bid will be required (**cash, personal or business checks are unacceptable**). The successful Contractor shall be required to furnish 100 percent performance and payment bonds.

The Anchorage School District reserves the right to reject any and all bids, and to waive any informalities or irregularities in bidding procedures.

ON-SITE VISIT AND PRE-BID CONFERENCE:

An On-Site Visit will be held on September 14, 2026 at 11:00 a.m. Local Time at Ursa Major Elementary School, 454 Dyea Ave., JBER, Alaska 99505. Please meet at the Front Office. **If base access assistance is required, please send an e-mail request to purchasing@asdk12.org with attendee name, company information and project title. Due to limited availability, (escort privileges, etc.) each company may be limited to one attendee. Please meet the ASD Project Manager at the JBER Fort Richardson Gate by 10:00 a.m.**

A Pre-Bid Conference will be held September 15, 2026 at 11:00 a.m. Local Time at Anchorage School District, Purchasing Department, located at 4919 Van Buren Street Anchorage, Alaska 99517. Prospective Bidders who wish to participate by teleconference may participate by calling (907) 742-6750. The line will be available approximately 5 minutes prior the conference start time.

All Bidders are encouraged to attend the On-site Visit and Pre-Bid Conference. Major sub-bidders are also encouraged to attend.

The Anchorage School District is committed to providing reasonable accommodations, according to applicable state and federal laws, to all individuals with a qualifying disability. If you require a reasonable

accommodation in order to participate in this or any other district process, please contact the Anchorage School District's Compliance/Equal Employment Opportunity Office at (907) 742-4132.

END OF SECTION

INSTRUCTIONS TO BIDDERS

PART 1. GENERAL INFORMATION

- 1.01 Refer to the Invitation to Bid for information relating to time, date and place for receipt of bids and other pertinent bidding information.
- 1.02 Anchorage School Board Policy 3515.5 prohibits a contractor whose employees or agents may have direct or incidental contact with Anchorage School District (the District) students from sending any employee or agent to district property who has been convicted of a sex offense under federal law or the law of any state and who is required to register as a sex offender under Alaska law or by court order, or who has been convicted of child kidnapping under federal law or the law of any state and who is required under Alaska law or court order to register on the Alaska Department of Public Safety Sex Offender/Child Kidnapper Central Registry. Board Policy 3515.5 requires contractors to certify in writing the contractor's knowledge of and compliance with Board Policy 3515.5. **Prior to executing a contract** for this project, the selected Contractor shall verify that no employee or agent who will be on district property is registered as a sex offender or child kidnapper in Alaska [Alaska Department of Public Safety "Sex Offender/Child Kidnapper Registry"] or in any other state. In addition, the contractor shall certify that, to its knowledge, no employee or agent is a convicted sex offender or child kidnapper. The required forms of certification are included in the bid documents.
- 1.03 LICENSE REQUIREMENTS
- A. The bidder shall include on the bid Form his current Business License number and expiration date from the State of Alaska authorizing him to engage in business to operate as a Business, Specialty or General Contractor, as well as his Federal Tax Identification number.
- B. The bidder shall provide a copy of his current State of Alaska Business License and Specialty or General Contractor license when requested in writing by the Purchasing Department.
- 1.04 BIDS
- A. The bidder shall review all of the proposed contract documents to ascertain all of the requirements of the work.
- 1.05 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS AND SITE WORK
- A. The bidder shall examine carefully the site of the proposed work, the proposal, plans, specifications and contract forms before submitting a proposal. The submission of a bid shall be an admission 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 requirement and accuracy of the plans, specifications, special provisions and terms of the contract.
- B. All documents furnished to any person, under any condition, remain the property of the Anchorage School District and shall be returned immediately upon request.
- C. Documents may be obtained upon the conditions set forth in the Invitation to Bid.
- 1.06 METHOD FOR CLARIFICATION
- A. Any bidder in doubt as to the meaning of any part of the plans, specifications or other documents may submit a written request for an interpretation. The bidder submitting the

request will be responsible for its prompt delivery not less than seven (7) working days prior to the date set for opening of bids. Questions can be delivered as follows:

1. Fax: (907) 243-6293
2. Email: purchasing@asdk12.org
3. Mail: Purchasing Department
4919 Van Buren Street
Anchorage, Alaska 99517
4. Hours: 7:30 a.m. – 4:00 p.m.

- B. A written request for an interpretation, which in the opinion of the Purchasing Department requires a reply, will be answered by issuing an addendum to all plan holders prior to the bid opening. The Owner will not be responsible for any other explanation or interpretation of the plans, specifications or other documents made or given prior to the bid opening.

1.07 PREPARATION OF BIDS

- A. Preparation and Submission:
Bids must be submitted on the forms furnished or copies thereof, and must be manually signed. In order to secure consideration, the bid must be submitted and sealed in an envelope on which contract identification is plainly marked on the outside. The bid form is included in the bidding documents. The envelope shall be addressed as indicated in the Invitation to Bid.
- B. Form:
The bid may provide for a quotation of a price, or prices, for one or more items which may be lump sum bids, alternate prices, scheduled items resulting in a bid on a unit of construction, or a combination thereof. Where required on the bid form, bidders must quote on all items and they are warned that failure to do so shall disqualify the bid.
- If erasures or other changes appear on the forms, each such erasure or change must be initialed by the person signing the bid.
- C. Alternate Bids and Qualified Bids:
Bids may be rejected if they show any omissions, alteration of the forms, additions not called for, conditional or alternate bids not called for or irregularities of any kind.

1.08 BID GUARANTEE

- A. Each bid shall be accompanied by a bid bond with good and sufficient surety or sureties acceptable to the Owner. The Anchorage School District will require five percent (5%) of the total amount of the base bid as a guarantee (**cash, personal, or business checks are not acceptable**). Bid guarantees for the three (3) low bidders will be held until the contract is executed.
- B. All other bid guarantees will be returned within seven (7) days of the bid opening. Power of Attorney for the official signing of the bond for the surety company must be submitted with the bond.

1.09 ALTERNATES

- A. The bidder shall include in the spaces provided on the "Bid Form" a bid for each alternate, if applicable.

- B. The Owner may accept alternates in any order or number and include them in the contract award price.

1.10 UNIT PRICES

- A. The bidder shall include in the spaces provided on the "Bid Form" a bid for each unit price, if applicable.
- B. The Owner may accept any or all of these unit prices and include them in the contract award price.
- C. In the case of discrepancy in the extended price calculation(s), the unit price(s) will prevail.

1.11 BIDDER QUALIFICATIONS (TO BE INCLUDED IF THERE IS NO 2-STEP QUALIFICATION PROCESS)

- A. Before the bid is considered for award, the Owner reserves the right to request the bidder to complete within seventy-two (72) hours a bidder qualification form and/or a current financial statement prepared by a Certified Public Accountant. Bidder qualifications to be listed upon the qualification form will include, as a minimum, a listing of bidder's previous contracts of a nature similar to that being bid upon; a listing of bidder's staff, to include managerial, technical and laboring positions; summary of bidder's plan and equipment available for use in the execution of the contract; and a listing of the projects to which the bidder is obligated in the near future. The Owner reserves the right to reject the bid of any bidder who fails to furnish promptly and properly all the information required in this paragraph.
- B. A bidder will be deemed to be unqualified to perform the contract if, after review and verification of the representations included on the qualification form submitted by the bidder, the following conditions appear:
 - 1. Bidder does not have sufficient prior experience (or an acceptable substitute thereof, as described below) with projects of a similar nature in technical, managerial and financial requirements to that in the present contract being bid.
 - a. Experience does not necessarily mean that the bidder is an established Contractor in the exact technical area for which the bid is submitted. In addition to such established contractors, newly established contractors will be considered qualified if they have shown on the bid qualification sheet form that they are staffed with sufficient technical, managerial and financial personnel with prior experience in the nature of construction for which the bids are invited, that bidder may adequately foresee and appreciate problems of such construction.
 - 2. Bidder does not have sufficient capability to undertake the obligations of the contract. A determination in this respect will be made when the Owner, upon review of the probable cash flow needs of the Contractor for this particular contract (to include payroll, cost of material and supplies, equipment rental costs and any other direct or incidental costs of the contract), determines that the Contractor does not have sufficient financial resources to enable him to satisfy his financial obligations under the contract. The Owner will consider all other pertinent financial data required by this clause and submitted by the Contractor. A determination that the bidder is unqualified will not be made under this paragraph unless the Owner

has determined that the bidder cannot meet his financial obligations under the contract after having considered all sources of income available to the bidder.

3. The bidder does not have sufficient staff, equipment or plant available to perform the contract. The Owner's determination in this matter will be based upon that represented by the bidder in his completion of the Bidder Qualification documents discussed above.
4. The bidder has a consistent history of unsatisfactory performance of contracts of this or similar nature, regardless of whether such contracts existed between the Owner and the Contractor, or other parties and the Contractor.
 - a. A determination of this nature will not be made unless the Owner, after review and verification of the contractor's previous work experience, determines that the contractor's consistent, unsatisfactory performance has resulted from the contractor's failure rather than a failure to perform by the other party. The Owner will give the Contractor an opportunity to explain such nonperformance(s) before any final determination is reached. Contract disputes which are pending resolution before any duly authorized judicial or administrative body will not be considered in reaching this determination.
 - b. A determination of a "consistent failure to perform" will not be made unless the Owner is satisfied after review of the bidder's prior experience that the Contractor has repeatedly failed to satisfy his obligations under past contracts. For purposes of this clause, "consistent" will not be construed to mean in every contract, nor will it be construed to include "isolated instances" of failure to perform.
 - c. In reaching any determination of this nature, the Owner may consider statements of other parties to the prior unperformed contracts, as well as the representations of the Contractor on his "Bidder Qualification" form. However, in each instance, the Owner will advise the Contractor of such other statements considered before a determination that the bidder is not qualified, as made by the Owner.

- C. The bidder's representations concerning his qualifications will be construed as a covenant under the contract. Should it appear that the bidder has made a material misrepresentation on his "Bidder Qualification" form, the Owner shall have the right to terminate the contract for the Contractor's breach, and the Owner may then pursue such remedies as exist elsewhere under this contract, or as otherwise are provided at law or equity.
- D. A determination that a bidder is unqualified will be made by the Owner. Such determination will be made in writing and include a thorough discussion of why the bidder is deemed unqualified. A letter will be sent to the bidder deemed unqualified, stating the reasons for such determination, and the bidder's right to request a review of this determination by appeal to the Anchorage School District Board.
- E. Any bidder who is deemed to be unqualified may, as provided under existing Anchorage School District policy, appeal such determination to the Anchorage School District Board prior to contract award to another bidder.

1.12 RECEIPT AND OPENING OF BIDS

- A. Time of Opening:

Bids shall be submitted prior to the time specified in the Invitation to Bid, and the exact date and time of receipt of bids will be recorded. Late bids will not be considered, but will be held unopened until the time of award and then returned to the bidder, unless other

disposition is requested or agreed to by the bidder. Time of bid receipt will be determined by the time stamp at the Purchasing Department, 4919 Van Buren Street, Anchorage, Alaska 99517.

B. FAX/Telegraph/Telephonic/E-Mail Bids:

FAX/telegraphic/telephonic/e-mail bids will not be considered. Modification by FAX or telegraph of bids already submitted will be considered if received prior to the time fixed in the Invitation to Bid. FAX/telegraphic modifications shall not reveal the amount of the original or revised bid.

C. Officer's Responsibility:

No responsibility will attach to any officer or agent of the Owner for the premature opening of, or the failure to open a bid not properly addressed and identified.

1.13 WITHDRAWAL OF BIDS

- A. Bids may be withdrawn on written request received from the bidders prior to the time specified for opening.
- B. No bid shall be withdrawn for a period of ninety (90) days subsequent to the bid opening without the written consent of the Owner.

1.14 BIDDERS INTERESTED IN MORE THAN ONE BID

- A. If more than one bid is offered by any party, by or in the name of his clerk, partner, or other person, all such bids will be rejected. A party who has quoted prices to a bidder is not thereby disqualified from quoting prices to other bidders, or from submitting a bid directly for the work.

1.15 BIDDERS PRESENT

- A. At the time and place specified for the opening of bids, contents of the bids will be made public for the information of bidders and other parties.

1.16 REJECTION OF BIDS

- A. The Owner reserves the right to reject any or all bids, and to waive any informalities or irregularities in bidding or award of the contract.

1.17 AWARD OF CONTRACT

- A. Acceptance of Bid:

Following the opening and evaluation of bids, the Owner will determine the apparent low responsive bidder and, subject to its right under Paragraph 1.16 to reject all bids, decide whether to accept the apparent low responsive bid. The Owner's acceptance of the apparent low responsive bid will be through a written notice from a duly authorized representative of the Owner, and no other act of the Owner or its representative will constitute an acceptance of a bid. The notice shall be titled "Notice of Intent to Award Contract," and shall set forth pre-award procedures and requirements, if any, including procedures for approval and award of contract by the School Board.

B. Basis of Award

1. It is the Owner's intention to award a contract to the lowest responsive and responsible bidder, including alternates, base bid, and quantified unit prices accepted by the Owner at the time of award, if applicable.
2. Unit prices which are not quantified will not be included in the determination of the award.
3. The Owner reserves the right to award the alternates in any combination with the base bid and include them in the total award.
4. The District reserves the right to request the lowest bidder(s) whose bids are determined to be reasonably susceptible to award to review their previous bids with consideration of any additions, clarifications or modifications, submit revised bids for Best and Final Offers (bids). If Best and Final Offers are requested, selected offerors must submit revised bids on the forms provided by the District to be considered for evaluation and award. Bidders who do not submit a Best and Final Offers (revised bids), when requested, will not be considered for evaluation and award and their bids will be rejected and considered non-responsive.
 - a. For purposes of this ITB, bids that are "reasonably susceptible to award" means the three (3) lowest responsive and responsible bidders, unless, in the sole discretion of the District's Purchasing Senior Director, one or more of the three lowest responsive and responsible bidder(s) was not within the competitive range and to remain under consideration for award when evaluated with other bids or the District received one or more additional bids that are within the competitive range of the three lowest responsive and responsible bids such that the additional bid(s) may remain under consideration when evaluated with the other bids. This is a strict mathematical evaluation and may not be challenged on that basis except in the case of obvious arithmetic errors.

C. Notification of Award to Bidders:

Following opening of bids and determination of the apparent low responsive bidder, the Administration will make public in the Purchasing Contracting Office each Notice of Intent to Award ten (10) calendar days prior to the scheduled award by the Board, except for purchases under \$100,000 which is three (3) business days. Bidders may, upon request to the Purchasing Office and/or Purchasing Contracting Office, review the bid tabulation summary prior to the scheduled Board award date.

D. Amount of Contract

The amount of the contract shall be understood to be the lump sum as given in the bid form. Where prices are given on alternative items, only the amounts of the alternates accepted by the Owner will be included in the total.

E. Execution of Contract:

By the Contractor: The bidder whose bid is accepted shall execute the contract and furnish the required bonding and insurance within five (5) days after presentation of the contract for signature. The contract shall be deemed to be executed by the successful bidder when two (2) originals of the contract, signed by an authorized officer of the corporation or company, and with each separately signed the bonds and insurances required herein, are received by the Owner. Failure or neglect to execute the contract, within the time specified or such extended period, if any, that the Owner may, in its sole discretion, authorize, shall constitute a breach of the agreement affecting the acceptance of the bid. The damages to

the Owner for such a breach shall include loss from interference with the general Capital Improvements Program of the Owner, and other items whose accurate amount would be difficult or impossible to compute.

The amount of the bid guarantee of the successful bidder who fails or neglects to execute the contract after proper notification of the acceptance of the bid shall be retained by the Owner as liquidated damages for such breach.

By the Owner: Upon receipt of the above-referenced two (2) Contracts executed by the Contractor, including all required bonds and insurance certificates, the properly authorized Owner representatives will execute the documents within ten (10) days. The contract shall be deemed to be completely executed when two (2) copies thereof, accompanied by the required bond, liability and other necessary insurance and signed by the Contractor, are executed by the Owner. All awards shall comply with the Anchorage School District Purchasing and Contracting Policy 3311. Awards of \$500,000 or more shall be presented to the School Board for their approval.

1.18 PERFORMANCE BOND AND PAYMENT BOND

- A. The successful bidder will furnish a Performance Bond and a Payment Bond in accordance with Section 00700, Paragraph 7.5.

1.19 INSURANCE

- A. The successful bidder will furnish complete Certificates of Insurance, as required by the General Conditions and Supplementary Conditions, in a form acceptable to the Owner.

1.20 NOTICE TO PROCEED

- A. The Owner will issue a Notice to Proceed with the work within ten (10) days following the Owner's execution of the contract. The date of commencement of the work shall be the date established in the Notice to Proceed. The Owner will not be responsible for any costs incurred by the Contractor prior to the Notice to Proceed.

1.21 AGGRIEVED BIDDERS

- A. Protest:

- 1. An interested party may protest a solicitation or a proposed award of a contract.

- a. A protest as to the specifications and/or terms and conditions of a solicitation must be received by the Purchasing Senior Director at least five (5) calendar days prior to the due date of the bid or proposal; failure to protest as provided herein constitutes a waiver of any objection to the solicitation.
- b. For construction projects and architectural/engineering design services, the protest of a proposed award of a contract must be received by the Purchasing Senior Director within ten (10) calendar days after issuance of the notice of intent to award, except that for purchases under \$100,000, the protest must be received within three (3) business days.
- c. For goods or services, the protest of a proposed award of a contract must be received by the Purchasing Senior Director within seven (7) calendar days after issuance of the notice of intent to award, except that for purchases under \$100,000, the protest must be received within three (3) business days.

- d. The protest must include the name of the person submitting the protest, the name of the bidder/proposer represented by that person, the specific action or bid/request for proposal contract award which is being protested, a detailed explanation of the reasons for the protest, and the relief requested.
 - e. The aggrieved person must serve all other interested parties with its protest.
2. The Purchasing Senior Director shall stay the intended award of a contract unless the Purchasing Senior Director determines the award of the contract without further delay is necessary to protect the District's best interest.
 3. The Purchasing Senior Director may, in his/her sole discretion, hold a hearing.
 4. The rights and remedies granted by this section are not available for informal small purchases with an actual or potential value of less than twenty-five thousand dollars (\$25,000).
 5. Failure to protest as provided herein constitutes a waiver of any objection to the solicitation and contract award.

B. Appeal:

1. A decision by the Purchasing Senior Director may be appealed to the Anchorage School Board.
2. Any appeal shall be filed with the Superintendent within five (5) days after the decision is received by the protester and must include the name of the person submitting the appeal, the name of the bidder/proposer represented by that person, and a detailed explanation of the basis for the appeal.
3. The aggrieved bidder/proposer must serve all other interested parties with its appeal.
4. The Superintendent may obtain an independent review of the appeal issues if the Superintendent determines such review will assist consideration of the appeal.
5. The independent review shall be conducted by a not directly involved District employee or an experienced but disinterested third party from outside the District.
6. Failure to appeal to the Anchorage School Board as provided herein constitutes a waiver of any objections to the solicitation and the contract award.

C. Consideration of Appeal:

1. The decision being appealed and the findings from the independent review, if any, will be reported to the Board.
2. Upon consideration of the appeal and allowing interested parties an opportunity to address the issues on appeal, the Board may:
 - a. Award the contract as recommended, if applicable, indicating its reasons for rejecting the appeal;
 - b. Grant the appeal, indicating its reasons for granting the appeal, and determine an appropriate remedy consistent with AR3311.1(c).1 of Board Policy. The Board may award the contract at that meeting to some other bidder/proposer if it finds that a delay in making the award would adversely affect the District;
 - c. Stay any award of the contract to permit further consideration of the appeal, with action to be scheduled as soon as practicable, but in no event more than twenty (20) days after the stay as initiated;
 - d. Reject all bids/proposals.
 - e. Take such other action as appears appropriate and in the best interest of the District under the circumstances.

D. Frivolous Protests:

1. Signature on Protest Constitutes Certificate

The signature of an attorney or party on a request for review, protest, motion, or other document constitutes a certificate by the signer that the signer has read the document, to the best of his/her knowledge, information, and belief formed after reasonable inquiry it is well grounded in fact and is warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law, and that it is not interposed for an improper purpose, such as to harass, limit competition, or to cause unnecessary delay or needless increase in the cost of the procurement or of the litigation.

2. Sanctions for Violation

If a request for review, protest, pleading, motion, or other document is filed with the Purchasing Senior Director is signed in violation of Board Policy AR3311.1(c).1, the Board, may impose upon the person who signed it, a represented party, or both, an appropriate sanction, that may include an order to pay to the other party or parties the amount of the reasonable expenses incurred because of the filing of the protest, pleading, motion, or other paper, including a reasonable attorney's fee.

1.22 GUARANTEE SECTION

- A. Whether or not there appears here or elsewhere herein specific reference to guarantees of all items of material, equipment or workmanship, they nevertheless shall be so guaranteed against defects for which the Contractor is responsible that may develop or become evident within a period of one (1) year from and after final acceptance of the work by the Owner. This guarantee shall be understood to imply prompt attention to any remedy of such defects as those mentioned above if and as they occur after the Contractor shall have written notice of their existence. If the defect, in the opinion of the Owner, is of such nature as to demand immediate repair, the Owner shall have the right to make them and the cost thereof shall be borne by the Contractor.

1.23 SUBCONTRACTORS

- A. All subcontractors proposed for the work must be acceptable to the Owner.
- B. The Owner reserves the right to request the proposed subcontractors to complete qualification forms and/or current financial statements prepared by a Certified Public Accountant.

1.24 MINIMUM WAGE RATES

- A. Labor required for the construction of this project is subject to the minimum wage rates as provided in the General Requirements.

1.25 NON DISCRIMINATION

- A. No bidder/offeror on any District contract may illegally discriminate on the basis of sex, race, color, religion, gender identity, sexual orientation, national origin, ancestry, age, marital status, changes in marital status, pregnancy, parenthood, physical or mental disability, Vietnam era veteran status, genetic information, or good faith reporting to the board on a matter of public CONCERN in employment, provision of services, or otherwise.

- B. Any bidder/offeror submitting a bid or proposal of one hundred thousand (\$100,000) or more must certify that if awarded a contract on the basis of that bid or proposal, he/she as the contractor will not illegally discriminate against any member or applicant for employment because of sex, race, color, religion, gender identity, sexual orientation, national origin, ancestry, age, marital status, changes in marital status, pregnancy, parenthood, physical or mental disability, Vietnam era veteran status, genetic information, or good faith reporting to the board on a matter of public concern in employment, provision of services, or otherwise.

1. Notice of Compliance

- a. All successful bidders/offerors shall insure such non-discrimination.
- b. All successful bidders/offerors must agree to post in conspicuous places, available to employees and applicants for employment, notice setting forth the provisions of this non-discrimination section and this section shall be deemed to be a part of every contract entered into by the District under these policies.

2. Minority Business Enterprises

- a. The District requires adherence to the Anchorage Municipal Code, relating to Minority Business Enterprises and will monitor and implement these policies through the District's Equal Employment Opportunity Director (EEO).
- b. It is the policy of the District that socially and economically disadvantaged minority businesses located within the Municipality of Anchorage be afforded an equitable opportunity to participate in District contracts.
- c. Any appeal from a decision of the Equal Employment Opportunity Director shall be to the Superintendent and, if not satisfied, to the Board.

1.26 ASBESTOS FREE MATERIALS

- A. The bidder, by submitting a bid on this project, thereby certifies and guarantees to the Anchorage School District that any products or materials sold, used or installed under the terms of this contract will not contain any asbestos. In the event the product sold does not conform to the above standards, the buyer may return the product for correction or replacement at the seller's option and at the seller's expense. Services performed by the seller which do not conform to the above standards must be corrected by the seller at the seller's expense or make the appropriate correction within a reasonable time.

1.27 CONFLICT OF INTEREST

- A. The Contractor agrees to certify that Anchorage School District employees, School Board members, or a member of their household are not in conflict of interest with the contract and Board Policy as follows (AR3311.1(e).1 Disclosure and Waiver of Conflict of Interest):

1. No Board member, employee, or a member of their household, shall acquire, directly or indirectly, an economic interest in a District or Municipal contract, or engage in business with the District or the municipality, unless the contract is competitively solicited and other requirements of Section 3311 of Board Policy and section 1.15 of the Anchorage Municipal Code are met.
2. The following acts and circumstances shall not be deemed to be in conflict with the performance of official duties if, at the earliest opportunity after having acquired such knowledge, the Board member or employee files a disclosure pursuant to

AR3311.1(e).1 or requests and obtains a waiver pursuant to Board Policy AR3311.1(e).2:

- a. Such person owns a sole proprietorship, or is a partner in a partnership, or is an officer, director, major shareholder (five percent (5%) or more of the outstanding shares) or has management control in a corporation that submits a bid, proposal or quotation to the District or attempts to enter or enters into a contract with the District;
- b. Such person has any significant (five percent (5%) or more) financial interest in any sale, lease or rental to the District of any service or property and such person has knowledge that the District intends to purchase, lease or rent the property or service;
- c. Such person wishes to sell or receive royalties on books or materials sold to the District for use in the school system for which the employee is the author;
- d. Such person is an employee who has been providing private services to a child who transfers to a new school or class or advances to a higher grade and the child becomes a student in the class being taught/aided by his/her provider.

B. Board Members, District employees, and their household and/or immediate family members are required to comply with Board Policies and the Municipal Ethics Code by disclosing conflicts of interest.

- 1. When a board member, employee, or their household and/or immediate family member intends to do business with the District, the appropriate District and Municipal forms must be filed by the Board Member or District employee with the Municipal Clerk's Office and the Purchasing Department.

Note: *Notice of Intent To Respond To Public Solicitation* shall be filed with the Municipal Clerk's office in advance to allow a minimum of **7 calendar days to elapse between electronic publication by the clerk and the final date** for submitting a response to the solicitation. The form may be obtained from the Municipality of Anchorage website, www.muni.org.

District *Disclosure* and *Request for Waiver* forms and instructions may be obtained from the Purchasing Bid Information link under Quick Links on the ASD website, www.asdk12.org.

- 2. The responsibility for complete and timely filing rests solely with the Board Member or District employee.

C. Copies of all conflict of interest and ethics code documents should be submitted with your quote.

1.28 CONTRACT INDUCEMENTS

- A. No payment, gratuity or offer of employment shall be made in connection with any contract, by or on behalf of the subcontractor to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

1.29 GOVERNANCE

- A. This solicitation is an Invitation to Bid (“ITB”) governed by applicable Anchorage School Board Policies, including Section 3311 of such Policies. Anchorage School Board Policies are available at <https://www.boardpolicyonline.com/?b=anchorage>

Offerors should read this ITB carefully and review all instructions contained herein. Incomplete or incorrect bids may be rejected as not conforming to the essential requirements of the ITB. Bids submitted on other than the prescribed forms contained in this ITB will be rejected. Bidders may copy the forms contained in the ITB for use in their bids, but substitute forms or formats are unacceptable. Electronic copies of the forms which bidders must submit as part of any bid, if any—if not provided with this ITB—may be obtained by contacting the Anchorage School District Purchasing Department. Forms shall not be altered except to supply requested bidder information.

1.30 APPRENTICESHIP UTILIZATION COMPLIANCE

- A. In order to be deemed a responsive bid/offer, bidders/offerors shall provide a signed notarized Apprenticeship Utilization Affidavit (“AUA”) with their bid. ASD reserves the right to request the signed notarized AUA to be submitted within three (3) working days after bid submission. By doing this, bidders/offerors are confirming that they understand and agree that in all trades/crafts categories in which there is an Alaskan Federally Registered Apprenticeship Program, they will ensure that 15% of the aggregate hours in those trades’ categories will be worked by apprentices, as mandated by Anchorage School Board Policy 3311.1.2. This applies to both prime contractor labor hours and subcontractor labor hours. By signing the AUA, bidders/offerors are confirming their understanding and agreement that ASD will request documentation to factually demonstrate compliance with the 15% Apprenticeship Utilization Policy (“AUP”), and conduct audits. Audits for projects will be conducted every 30 days. In addition to providing documentation to ASD to confirm that 15% of the labor hours worked in trades/crafts categories that have Alaskan Federally Registered Apprenticeship Program has been done by certified apprentices enrolled in such programs, the prime contractor will provide documentation to confirm that the apprentices listed on the documentation submitted are currently in good standing in their Alaskan Federally Registered Apprenticeship Program. Attached to the solicitation will be the current version of the Federally Registered Alaskan Apprenticeship Programs, which was provided to ASD by the Federal Department of Labor.
- B. Forms used to demonstrate compliance during the contract administration period are found in Section 00630 Construction Forms.
1. List of Federally Registered Alaskan Apprenticeship Programs
 - a. This list from the Federal Department of Labor will provide contractors with a list of Alaskan apprenticeship programs and crafts/trades categories that are subject to ASD’s AUP.
 2. Apprenticeship Utilization Form
 - a. The Prime Contractor will list the crafts/trades categories required to complete the project that have Alaskan Federally Registered Apprenticeship Programs. This list will include all crafts/trades categories for both the prime and subcontractors.
 3. Apprenticeship Utilization Program Calculation Form

- a. This form will be submitted by the prime contractors to demonstrate compliance with the apprenticeship utilization percentage for both prime and subcontractors on the project.
- b. Audits will be performed when the hours submitted by the prime's and/or subcontractor's certified payroll exceed 500 hours. Audits will continue as per the schedule unless the prime's and the subcontractor's certified payroll does not meet the minimum threshold of 500 hours. Prime and Subcontractors will be required to submit certified payrolls during periods where very little work is being performed. This will continue until the minimum threshold of 500 hours is met and warrants an audit. Audits will be conducted from Site Available to Contractors through Final Completion on all projects awarded by the District in excess of \$100,000 at the time of bid.

4. Penalty Table

- a. This table lists the penalties for non-compliance with the AUP.

- C. Prime Contractors are required to meet with Purchasing to discuss forms and processes of Apprentice Utilization Program prior to start of work.

1.31 FEDERAL FUNDING

- A. In order to be deemed a responsive bid/offer, bidders/offerors shall provide a signed copy of Exhibit 2 with their bid. Exhibit 2 consists of the following forms: Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion – Lower Tier Covered Transactions; Federal Compliance Guidelines for the Use of Federal Funds; EDGAR Certifications; and U.S. Department of Agriculture Lobbying Certification Regarding Lobbying Form. ASD reserves the right to request the signed Exhibit 2 to be submitted within three (3) working days after bid submission.
- B. Pursuant to Appendix II to 2 Code of Federal Regulations (CFR) Part 200, Contract Provisions for Non-Federal Entity Contracts Under Federal Awards, the resulting Award will be fully or partially funded with federal funds and additional contractual requirements or certifications that must be satisfied at the time of Award (See Exhibit 2). These federal requirements will be incorporated in an Award resulting from this solicitation.

END OF SECTION

PROJECT SCHEDULE MILESTONE DATES

Division 0
Section 00200

PROJECT SCHEDULE MILESTONE DATES

On-Site Visit	September 14, 2026
Pre-Bid Conference.....	September 15, 2026
Bid Opening	October 1, 2026
Board Meeting (anticipated).....	November 2, 2026, Non-Action, November 17, 2026, Action
Notice to Proceed (anticipated).....	December 11, 2026
Site Available to Contractor.....	December 12, 2026
Substantial Completion – Building	June 16, 2027
Substantial Completion - Site.....	June 30, 2027
Final Completion	July 6, 2027

Dates of Interest:

Labor Day Holiday.....	September 7, 2026
Parent Teacher Conferences	October 28 – 29, 2026
Thanksgiving Holiday	November 26 – 27, 2026
Winter Vacation.....	December 21, 2026 – January 1, 2027
Martin Luther King Holiday	January 18, 2027
Presidents Day Holiday.....	February 15, 2027
Parent Teacher Conferences	February 24 – 25, 2027
Spring Break Week	March 15 – 19, 2027
School Ends for Students.....	May 28, 2027
Memorial Day Holiday	May 31, 2027
Teachers Last Day	June 1, 2027
Juneteenth Holiday	June 18, 2027
Independence Day Holiday	July 5, 2027
Teachers First Day.....	August 9, 2027
Students First Day.....	August 12, 2027
Labor Day Holiday.....	September 6, 2027
Parent Teacher Conferences	October 27 – 28, 2027
Thanksgiving Holiday	November 25 – 26, 2027
Winter Vacation.....	December 20 – 31, 2027

The Contractor shall be required to plan, schedule, execute and complete all work under the contract in accordance with the Project Schedule Milestone Dates set forth under this Section 00200. The above listed Project Schedule Milestone Dates for Substantial Completion and Final Completion may not be altered by the Contractor, either to schedule or to achieve early completion of the project, without the express written consent of the Owner.

The bidder's attention is drawn to the requirements of Division 1, Section 01311 of the General Requirements entitled Project Schedule and to the Phasing Drawings for associated phasing information.

END OF SECTION

Project Title: Ursa Major ES Replacement ITB-1-Demolition

Invitation to Bid Number: 2027 – 801

TO: Anchorage School District
4919 Van Buren Street
Anchorage, Alaska 99517

FROM: _____ BIDDER

ADDRESS

CITY/STATE

PHONE/FAX

EMAIL

Operating as (strike out conditions that do not apply) an individual, a company, a corporation, organized and existing under the laws of the State of _____, or a proprietorship, a partnership, or joint venture consisting of _____.

1. BASE BID:

Having become completely familiar with the local conditions affecting the cost of the work at the place where work is to be executed, and having carefully examined the site and building conditions as they currently exist, and having carefully examined the proposed contract documents, together with any addenda to such contract documents as listed hereinafter, the undersigned hereby proposes and agrees to provide all labor, materials, equipment, transportation, supervision and other facilities as necessary and/or required to execute all of the work described by the aforesaid contract documents for the lump sum consideration of:

\$ _____ (In Numbers)

Said amount being hereinafter referred to as the base bid, base bid proposed, or lump sum.

2. ALTERNATES:

The undersigned proposes to perform alternates for the stated resulting additions or deductions from the base bid. Additions and deductions shall include any modifications of work or additional work that the undersigned may deem to be required to perform by reason of the acceptance or rejection of any alternate, including allowances for overhead and profit, and in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof. The Owner reserves the right to award the alternates in any order or number and include them in the contract award price.

A. None

3. UNIT PRICES:

The following unit prices will be used at the discretion of the Owner for the addition or deletion of work not reasonably implied or not included in the Contract Documents. Unit prices must include all labor, material, overhead, and profit for each unit of work. All unit price work will be processed by Request for Proposal followed by a Change Order to the Contract when quantities are verified and agreed upon.

A. None

4. ALLOWANCES / ASSIGNMENTS:

A. None

5. ADDENDA ACKNOWLEDGMENT:

The undersigned acknowledges receipt of the following addenda: (List by number and date appearing on addenda.)

6. TIME OF COMPLETION:

The undersigned agrees to complete all work under this contract in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof.

7. BID SECURITY:

A bid bond in the amount of five percent (5%) of the total amount of the base bid is attached in the sum of:

\$ _____ (In Numbers)

which is to become the property of the Owner in the event the Performance Bond and Payment Bond are not executed within the time set forth in paragraph 10 of this section, as liquidated damages for the delay and additional work caused the Owner.

8. The undersigned agrees that upon receipt of the notice of acceptance of his bid, he will execute the formal contract, and will deliver all proper bonds and proof of insurance coverage as may be required by the contract documents.

9. The undersigned agrees to accept the Assignment of the Bid Allowance as set forth in Section 01031, Bid Allowances.

10. The undersigned further agrees to execute the formal contract within ten (10) days from the date of the notice of acceptance of this bid, and in case the undersigned fails or neglects to appear within the specified time to execute the contract, the undersigned will be considered as having abandoned the contract, and the bid bond accompanying this bid will be forfeited to the Owner by reason of such failure on the part of the undersigned.

11. The undersigned further agrees to commence with the work under the contract in accordance with the date of commencement of the Work established in the Notice to Proceed.
12. The undersigned further agrees that the bid security may be retained by the Owner and that said bid guarantee shall remain with the Owner until the contract has been executed by the Owner.
13. The undersigned has checked all of the above figures, and understands that the Owner will not be responsible for any errors or omissions on the part of the undersigned in preparing this bid.
14. In submitting this bid, it is understood that the right is reserved by the Owner to reject any or all bids and waive any informalities and irregularities in connection therewith. It is agreed that this bid may not be withdrawn for a period of forty-five (45) days from the date and time of opening.
15. The undersigned declares that the person or persons signing this Bid Form is/are fully authorized to sign on behalf of the firm listed and to fully bind the firm listed to all the conditions and provisions thereof.
16. It is agreed that no person or persons or company other than the firm listed below or as otherwise indicated has any interest whatsoever in this bid or the contract that may be entered into as a result of the bid and that in all respects the proposal is legal and firm, submitted in good faith without collusion for fraud.
17. It is agreed that the undersigned has complied or will comply with all requirements of local, state and national laws, and that no legal requirement has been or will be violated in making or accepting this bid in awarding the contract to him and/or in the prosecution of the work required.

18. CONFLICT OF INTEREST:

I certify no member of the School Board or District employee, or spouse or other member of his/her household shall have any undisclosed interest as noted in paragraph entitled Conflict Of Interest (Section 00100). By and for the bidder:

Signature: _____

19. APPRENTICESHIP UTILIZATION AFFIDAVIT (FOR BIDS OVER \$100,000)

Pursuant to School Board Policy 3311.1.2, Use of Apprentices, I _____

the undersigned Principal for _____

on Solicitation _____ certify:

- A. I understand that Anchorage School District ("ASD") School Board Policy 3311.1.2 states, "For capital maintenance and construction projects with an estimated total cost of more than \$100,000, the Anchorage School District shall require that no less than fifteen percent (15%) of the total hours worked on the project shall be performed by apprentices enrolled in a federally registered or State of Alaska-approved apprenticeship program. This requirement shall only apply to crafts for which an Alaskan federally registered apprenticeship program exists."
- B. I will ensure that apprentices employed by the prime and sub-contractors, in the eligible trades categories, will provide no less than fifteen percent (15%) of the aggregate labor hours of those eligible trades categories.

- C. I understand that if awarded a contract in excess of \$100,000, ASD will audit the prime contractor at 30-day intervals. ASD reserves the right to audit at random intervals as needed.
- D. I understand ASD will conduct random site inspections to determine that employed apprentices are working at the project site.
- E. I understand that if I am awarded a contract ASD will require the following specific reporting requirements during the contract performance period to ensure that the 15% apprenticeship utilization requirement is met:
 - a. List of the apprentices the prime contractor intends to use to meet the utilization goal, and the Alaskan federally registered apprenticeship programs to which they belong (Apprenticeship Utilization Form);
 - b. List of the subcontractors that the prime contractor will use on this project;
 - c. List of the apprentices the subcontractor intends to use to meet the utilization goal required by the prime contractor, and the apprenticeship programs they belong to (Apprenticeship Utilization Form);
 - d. Submission of Apprenticeship Utilization Program Calculations Form, to be submitted by the prime contractor, at 30-day intervals for contracts exceeding \$100,000, consisting of a compliance spreadsheet, with supporting documents demonstrating compliance by both the prime contractor and all subcontractors, identifying the trades categories that are subject to the utilization requirement, apprentice employees used to meet the goals, and apprentice hours calculation showing compliance with the required 15% utilization when compared to total hours worked in the eligible trades categories.
- F. I understand a non-compliance penalty for projects exceeding \$100,000 will be assessed at each 30-day audit per the Penalty Table, if I am found to be non-compliant during the contract period.
 - a. Failure to comply at 1st 30-day audit will result in a penalty per the Penalty Table, which will be deducted from the prime contractor's invoice.
 - b. Failure to comply in a consecutive 2nd 30-day audit will result in a penalty per the Penalty Table, which will be deducted from the prime contractor's invoice.
 - c. Failure to comply in a consecutive 3rd 30-day audit will result in a penalty per the Penalty Table, which will be deducted from the prime contractor's invoice.
 - d. Failure to comply in a consecutive 4th 30-day audit will result in a penalty per the Penalty Table, which will be deducted from the prime contractor's invoice, and may result in a finding of non-responsibility on future bidding. (This penalty will repeat for any future non-compliance.)
- G. Application of the Penalty Table:
 - a. Advancement of penalties in the Penalty Table will only be assessed for consecutive non-compliance. If the contractor gets back into compliance, any future non-compliance will be assessed at the beginning step of the Penalty Table, per the applicable contract threshold category.
- H. Lack of Apprentice(s) availability:
 - a. If a contractor is awarded a contract but cannot meet the apprenticeship utilization requirement, and fail an audit, the contractor will have the opportunity to request a waiver from the apprenticeship utilization requirement. A waiver will only be granted if the contractor can factually demonstrate that the cause was from a lack of available apprentices in eligible trades categories.

- I. ASD will provide the List of Alaskan Federal Registered Apprenticeship Programs, which contains the crafts/trades categories within those federally registered programs. Once per year, ASD will receive the updated List of Alaskan Federal Registered Apprenticeship Programs from the Federal Department of Labor to capture any new Alaskan Federally Registered Apprenticeship Programs that have been added, or to capture any that have been dissolved or discontinued. The List of Alaskan Federal Registered Apprenticeship Programs provided to ASD by the Federal Department of Labor will be posted on ASD's website, as contained in the solicitation, so contractors have access to it.
- J. Definitions:
- a. **Alaskan Federally Registered Apprenticeship Programs** are programs approved by the Federal Department of Labor, US DOL Office of Apprenticeship.
 - b. **Eligible Trades Categories** are the crafts/trades categories that fall under an Alaskan Federally Registered Apprenticeship Program. Eligible Trades Categories will be the categories measured for aggregate project hours and apprentice hours to establish the apprenticeship utilization percentage.
 - c. **The List of Alaskan Federal Registered Apprenticeship Programs** is a current list provided by ASD to contractors that shows the Alaskan Federally Registered Apprenticeship Programs and the eligible trades categories under those programs. That current list will be the list in effect and in force during the issuance of the solicitation. Any changes to the list will affect future solicitations and will not be retroactive to prior solicitations.
 - d. **Random Site Inspections** are defined as non-scheduled site inspections, in which ASD's representative will visit the project site to establish if apprentices are physically on-site. ASD will provide a minimum of 24 hours' notice to contractors prior to the site inspections.
 - e. **Consecutive Non-Compliance** is when a contractor consecutively fails to meet the required apprenticeship utilization percentage. If a contractor fails an audit, but then passes the next audit, any future non-compliance will be addressed at the first step of the Penalty Table per the contract values in the table.
 - f. **The Measurement of Aggregate Apprenticeship Utilization Hours** is defined by the following. Compliance will be audited at 30-day intervals for projects exceeding \$100,000. Each 30 day audit period will be measured independently for aggregate apprenticeship utilization hours. If a contractor does not meet the 15% apprenticeship utilization requirement in an audit period, a penalty will be assessed, per the penalty table. However, the deficiency in percentage of apprenticeship utilization hours, will not be carried forward from one audit period to the next. Contractors will only be required to meet the 15% apprenticeship utilization requirement in each audit period, which will be measured independently. In addition, if the aggregate hours for all audit periods for the entire project are 15% or greater, any previously assessed penalties for non-compliance in an audit period will be rescinded.
 - g. **Finding of non-responsibility:** If ASD determines a contractor to be non-responsible, they will not be permitted to bid on ASD projects.

IN WITNESS WHEREOF, the signature of the undersigned Contractor has been hereunto set this _____ day of _____, 20____, at _____, Alaska.

Signature: _____

Printed Name: _____

I, _____, being first duly sworn, say that I am the agent for and executed the foregoing under authority of said company to do so; that I have read the same, know the contents thereof, and the matter set forth therein are as I truly believe.

Signature: _____

Subscribed and sworn to before me this _____ day of _____, 20____, at _____, Alaska.

Notary Public in and for: _____

My Commission Expires: _____.

20. LICENSE NUMBER(S):

Alaska Business License Number: _____

Alaska General or Specialty Contracting License Number: _____

Respectfully Submitted, this _____ day of _____, 20____.

Firm Name: _____

Federal Tax ID: _____

Address: _____

Signature: _____

Name (Typed): _____

Title: _____

CORPORATE SEAL (if applicable)

ENCLOSURES:

1. Bid Guarantee (in the form and amount specified or required, include Power of Attorney For Surety)

END OF SECTION

ASBESTOS ABATEMENT SUBCONTRACTOR'S CERTIFICATE OF INSURANCE

Division 0
Section 00420

ASBESTOS ABATEMENT SUBCONTRACTOR'S CERTIFICATE OF INSURANCE

PART 1. GENERAL

1.01 REFERENCE:

- A. As part of the Owner-Contractor Agreement (Document 00500), the Contractor shall cause its asbestos abatement subcontractor to submit a Certificate of Insurance on an Anchorage School District Form on which the Subcontractor's insurer certifies that the Subcontractor has insurance coverage to the same extent, with the same endorsements, and with the same limits and under the same conditions as those required of the Contractor pursuant to General Conditions of the Owner-Contractor Agreement, Article 11, with the exception of builder's risk insurance and umbrella liability insurance. The Contractor shall submit to the Owner the Subcontractor's completed Certificate of Insurance within five (5) days after the Owner's approval of the proposed Asbestos Abatement Subcontractor.

PART 2. (NOT USED)

PART 3. (NOT USED)

END OF SECTION

OWNER – CONTRACTOR AGREEMENT FORM

REFERENCE:

1. The form of agreement between the Owner and the Contractor shall be the form bound herein.
2. The Agreement shall be executed in duplicate.

CONTRACT NO. XXCXXXX
SCHOOL PROJECT TITLE
ITB 202X-8XX
ASD PROJECT NO.

Board Memo No.: N/A or NumberDate of Contract: Date of Contract

Company
Address
City, State, Zip

- ☐ Sole Proprietorship
☐ Partnership
☐ Incorporated in the State of Alaska

OWNER: ANCHORAGE SCHOOL DISTRICT, ANCHORAGE ALASKA

CONTRACT FOR: ITB SCHOOL PROJECT TITLEAmount of Contract: Amount of Contract in words Dollars and No Cents

Base Bid:	\$xxx,xxx.xx
Additive Alternate 1:	\$xxx,xxx.xx
Siemens Allowance:	\$xxx,xxx.xx
Total:	\$xxx,xxx.xx

Statement of Work: The Contractor shall furnish all labor, equipment and materials and perform the work above described for the amount stated in strict accordance with Contract Documents, all of which are made a part of this Contract and designated as follows:

CONTRACT DOCUMENTS

- I. This Contract, consisting of two (2) pages.
- II. Section 00620 Performance Bond and Payment Bond, consisting of nine (9) pages, dated (date of contract) and attached Power of Attorney for Surety.
- III. Contractor signed Bid Form, Section 00300 and signed Addendum/a consisting of four (4) or five (5) pages.
- IV. Alaska Sex Offender/Child Kidnapper Registry Contractor Certification consisting of one (1) page.
- V. Certificates of Insurance.
- VI. Invitation to Bid (number) Project Manual dated (date) and all Drawings are hereby incorporated by reference as if in full text.

In the event of a conflict between any of the Contract Documents and the provisions of any purchase order of materials or service request issued in connection with this Contract, the provisions of the Contract Documents shall prevail.

Work shall be started in accordance with the Notice to Proceed. Time being of the essence, work shall be completed in accordance with the Project Schedule Milestone Dates set forth under Section 00200 thereof.

The ASD Project Manager for this Contract is: Insert Name of Project Manager Cell (907) XXX-XXXX, Office (907) XXX-XXXX and insert email address.

The attached performance and payment bond is in due form according to law, and is hereby approved.

BID BOND FORM

REFERENCE:

1. If the Bid Guarantee is submitted on Bond Form, the Bid Bond shall be the form as bound herein.

BID BOND

KNOW ALL MEN BY THESE PRESENT that we, _____ as
Contractor

PRINCIPAL, and _____, a corporation duly organized under the laws
Surety

of the State of _____, as SURETY/OBLIGOR authorized to transact surety business in the
state of Alaska, are held and firmly bound unto the ANCHORAGE SCHOOL DISTRICT, as OBLIGEE, in
the amount of 5% of the Base Bid Amount for payment whereof PRINCIPAL and SURETY bind ourselves,
our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these present.

WHEREAS, the PRINCIPAL is herewith submitting its proposal for _____

The condition of this obligation is such that if the PRINCIPAL will, within the time required, enter into a
formal contract, and give a good and sufficient bond to secure the performance of the terms and conditions
of the contract, then this Obligation to be void; otherwise, the PRINCIPAL and SURETY will pay unto the
OBLIGEE the amount stated above.

OWNER

Anchorage School District
4919 Van Buren Street
Anchorage, Alaska 99517

CONSTRUCTION PROJECT

Solicitation No.: _____

Location: _____

CONTRACTOR

Name: _____

Address: _____

City/State: _____

SURETY

Name: _____

Address: _____

City/State: _____

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution of this bond on the _____
day of _____, 20____.

PRINCIPAL

SURETY

Contractor Name

Corporate Surety Name (Seal)

By: _____
Signature

By: _____
Signature

Typed Name and Title

Typed Name, Attorney-in-fact

WITNESS AS TO PRINCIPAL

Note: Attach Power of Attorney for Surety Signator.

END OF SECTION

PERFORMANCE BOND AND PAYMENT BOND

REFERENCE:

1. The Performance Bond and Payment Bond shall be the forms as bound herein.

CONSTRUCTION PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENT that we, _____ as
Contractor

PRINCIPAL, and _____, a corporation duly organized under the laws
Surety

of the State of _____, as SURETY/OBLIGOR authorized to transact surety business in the
state of Alaska, are held and firmly bound unto the ANCHORAGE SCHOOL DISTRICT, as OBLIGEE, in
the amount

of _____
_____ Dollars

(\$ _____), for payment whereof PRINCIPAL and SURETY bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these present.

This Construction Performance Bond ("Bond") is entered into by and between the undersigned parties to
ensure the faithful performance of the Construction Contract listed below.

OWNER

Anchorage School District
4919 Van Buren Street
Anchorage, Alaska 99517

CONSTRUCTION PROJECT

Solicitation No.: _____
Location: _____

BOND

Number: _____
Date: _____
Amount: _____

CONSTRUCTION CONTRACT

Number: _____
Date: _____
Amount: _____

CONTRACTOR

Name: _____
Address: _____
City/State: _____

SURETY

Name: _____
Address: _____
City/State: _____

PERFORMANCE BOND AND PAYMENT BOND

Division 0

Section 00620

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution hereof of two (2) original counterparts as the _____ day of _____, 20_____.

PRINCIPAL

Contractor Name

Signature

Typed Name and Title

WITNESS AS TO PRINCIPAL

SURETY

Corporate Surety Name (Seal)

Signature

Typed Name, Attorney-in-fact

Note: Attach Power of Attorney for Surety Signator.

CONSTRUCTION PERFORMANCE BOND TERMS AND CONDITIONS

1. The CONTRACTOR and the SURETY, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER for the complete and proper performance of the Construction Contract, which is incorporated herein by reference.
2. If the CONTRACTOR completely and properly performs all of its obligations under the Construction Contract, the SURETY and the CONTRACTOR shall have no obligation under this Bond.
3. If there is no OWNER Default, the SURETY's obligation under this Bond shall arise after:
 - a. OWNER has declared a CONTRACTOR Default under the Construction Contract pursuant to the terms of the Construction Contract; and
 - b. The OWNER has agreed to pay the Balance of the Contract Sum to:
 - i. The SURETY in accordance with the terms of this Bond and the Construction Contract; or
 - ii. A contractor selected to perform the Construction Contract in accordance with the terms of this Bond and the Construction Contract.
4. When the OWNER has satisfied the conditions of Paragraph 3, the SURETY shall promptly (within thirty (30) days) and at the SURETY's expense elect to take one of the following actions:
 - a. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Construction Contract (but OWNER may withhold consent, in which case the SURETY must election option 4b, 4c or 4d, below); or
 - b. Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
 - c. Obtain bids from qualified contractors acceptable to OWNER for a contract for performance and completion of the Construction Contract, and, upon determination by OWNER of the lowest responsive and responsible bidder, arrange for a contract to be prepared for execution by OWNER and the contractor selected with OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified SURETY equivalent to the bonds issued on the Construction Contract; and, if the SURETY's obligations defined in Paragraph 6 exceed the Balance of the Contract Sum, then the SURETY shall pay to OWNER the amount of such excess; or
 - d. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and, with reasonable promptness under the circumstances and after investigation and consultation with OWNER, determine in good faith the amount for which it may then be liable to OWNER under Paragraph 6 for the performance and completion of the Construction Contract and, as soon as practicable after the amount is determined, tender payment therefore to OWNER with full explanation of the payment's calculation. If OWNER accepts the SURETY's tender under this paragraph 4.d, OWNER may still hold SURETY liable for future damages then unknown or unliquidated resulting from the CONTRACTOR Default. If OWNER disputes the amount of the SURETY's tender under this paragraph 4.d, OWNER may exercise all remedies available to it at law to enforce the SURETY's liability under paragraph 6.

5. If the SURETY does not proceed as provided in Paragraph 4, then the SURETY shall be deemed to be in default on this Bond ten (10) days after receipt of an additional written notice from OWNER to the SURETY demanding that the SURETY perform its obligations under this Bond. At all times OWNER shall be entitled to enforce any remedy available to OWNER at law or under the Construction Contract including, without limitation, and by way of example only, rights to perform work, protect work, mitigate damages, or coordinate work with other consultants or contractors.
6. The SURETY's monetary obligation under this Bond is limited by the amount of this Bond. Subject to these limits, the SURETY's obligations under this Bond are commensurate with the obligations of the CONTRACTOR under the Construction Contract. The SURETY's obligations shall include but are not limited to:
 - a. The responsibilities of the CONTRACTOR under the Construction Contract for completion of the Construction Contract and correction of defective work;
 - b. The responsibilities of the CONTRACTOR under the Construction Contract to pay liquidated damages, and for damages for which no liquidated damages are specified in the Construction Contract, actual damages caused by non-performance of the Construction Contract, including but not limited to, all valid and proper back charges, offsets, payments, indemnities or other damages;
 - c. Additional legal, design professional and delay costs resulting from the CONTRACTOR Default or resulting from the actions or failure to act of the SURETY under Paragraph 4.
7. No right of action shall accrue on this Bond to any person or entity other than OWNER or its heirs, executors, administrators, or successors.
8. The SURETY hereby waives notice of any change, alteration or addition to the Construction Contract or to related subcontracts, purchase orders and other obligations, including changes of time. The SURETY consents to all terms of the Construction Contract, including provisions on changes to the Contract. No extension of time, change, alteration, modification, deletion, or addition to the Contract Documents, or of the work required thereunder, shall release or exonerate SURETY on this Bond or in any way affect the obligations of SURETY on this Bond.
9. Any proceeding, legal or equitable, under the Bond shall be instituted in the Superior Court for the State of Alaska, Third Judicial District.
10. Notice to the SURETY, OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the front page.
11. Any provision in this Bond conflicting with any statutory or regulatory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein.
12. Definitions.
 - a. Balance of the Contract Sum: The total amount payable by OWNER to the CONTRACTOR pursuant to the terms of the Construction Contract after all proper adjustments have been made under the Construction Contract, for example, deductions for progress payments made, and increases/decreases for approved modifications to the Construction Contract.
 - b. Construction Contract: The agreement between OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

- c. CONTRACTOR Default: Material failure of the CONTRACTOR which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract, including but not limited to, the provisions of Article 14 of the General Conditions of the Construction Contract.
- d. OWNER Default: Material failure of OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR progress payments due under the Construction Contract or to perform other material terms of the Construction Contract, if such failure is the cause of the asserted CONTRACTOR Default and is sufficient to justify CONTRACTOR termination of the Construction Contract.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENT that we, _____ as
Contractor

PRINCIPAL, and _____ a corporation duly organized under the laws
Surety

of the State of _____, as SURETY/OBLIGOR authorized to transact surety business in the
state of Alaska, are held and firmly bound unto the ANCHORAGE SCHOOL DISTRICT, as OBLIGEE, in
the amount

of _____ Dollars

(\$ _____), for payment whereof PRINCIPAL and SURETY bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these present.

This Payment Bond ("Bond") is entered into by and between the undersigned parties to ensure the faithful
performance of the Construction Contract listed below.

OWNER

Anchorage School District
4919 Van Buren Street
Anchorage, Alaska 99517

CONSTRUCTION PROJECT

Solicitation No.: _____
Location: _____

BOND

Number: _____
Date: _____
Amount: _____

CONSTRUCTION CONTRACT

Number: _____
Date: _____
Amount: _____

CONTRACTOR

Name: _____
Address: _____
City/State: _____

SURETY

Name: _____
Address: _____
City/State: _____

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution hereof of two (2)

original counterparts as the _____ day of _____, 20_____.

PRINCIPAL

SURETY

Contractor Name

Corporate Surety Name (Seal)

Signature

Signature

Typed Name and Title

Typed Name, Attorney-in-fact

WITNESS AS TO PRINCIPAL

Note: Attach Power of Attorney for Surety Signator.

PAYMENT BOND TERMS AND CONDITIONS

The condition of this obligation is such that if the PRINCIPAL shall promptly make payment to all Claimants who furnish labor or materials in the prosecution of the Work provided for in the Construction Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

This Bond has been furnished to comply with Alaska Statute 36.25.010, and to allow enforcement rights pursuant to Alaska Statute 36.25.020. Any provisions in this Bond conflicting with said statutory requirements shall be deemed deleted herefrom and provisions conforming to such statutory requirements shall be deemed incorporated herein.

The SURETY hereby waives notice of any change, alteration or addition to the Construction Contract or to related subcontracts, purchase orders and other obligations, including changes of time. The SURETY consents to all terms of the Construction Contract, including provisions on changes to the Contract. No extension of time, change, alteration, modification, deletion, or addition to the Contract Documents, or of the work required thereunder, shall release or exonerate SURETY on this Bond or in any way affect the obligations of SURETY on this Bond.

END OF SECTION

SAMPLE FORMS AND CERTIFICATES

A. GENERAL

A.01 RELATED WORK SPECIFIED ELSEWHERE

- A. Comply with the contract conditions requirements and specified administrative procedures in closing-out work.

A.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Section 01700: Project Close-out
- B. General and Supplementary General Conditions

A.03 APPLICATION AND CERTIFICATE FOR PAYMENT

- A. Use Anchorage School District Form 100, 100A, 100B, and 100C attached herein.

A.04 CERTIFICATION OF SUBSTANTIAL COMPLETION

- A. Use Anchorage School District Form 101 attached herein.

A.05 CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS

- A. Use Anchorage School District Form 102 attached herein.

A.06 RELEASE ON CONTRACTS

- A. Use Anchorage School District Form 103 attached herein.

A.07 CONSENT OF SURETY COMPANY TO FINAL PAYMENT

- A. Use Anchorage School District Form 104 attached herein.

A.08 CONSENT OF SURETY TO REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE

- A. Use Anchorage School District Form 105 attached herein.

A.09 CERTIFICATES OF INSURANCE

- A. The contractor's Certificate of Insurance shall be on an industry standard form with, as a minimum, the categories and clauses on the Accord form with contractual clauses for contract number and description, subrogation waiver, additional insured and cancellation notification.

A.10 REQUEST FOR INFORMATION

- A. Contractor's requests for information shall be on Anchorage School District request for information forms.

A.11 PRIME CONTRACT POTENTIAL CHANGE ORDER (PCO)

- A. Proposals will be executed on Anchorage School District PCO forms.

A.12 CERTIFICATE OF COMPLIANCE

- A. The Contractor shall submit a notarized Certificate of Compliance, contained in this section, with his application for Final Payment.

A.13 WARRANTY OF WORK

- A. The Contractor shall furnish to the Owner a notarized Warranty of Work after Final Payment, contained in this section, with his application for Final Payment.

A.14 AHERA EXCLUSION DOCUMENT

- A. The Contractor shall furnish to the Owner a signed AHERA Exclusion Document, contained in this section, with his application for Final Payment.

A.15 PRIME CONTRACT CHANGE ORDER (PCCO)

- A. Change Orders/Contract Modifications will be executed on Anchorage School District PCCO forms.

A.16 CONTRACTOR'S QUALITY CONTROL REPORT (CQC)

- A. The Contractor shall complete the CQC Report in accordance with Section 01400.

A.17 DEPARTMENT OF LABOR NOTICE OF WORK

- A. The Contractor shall furnish to the Department of Labor a Notice of Work prior to start of construction.

A.18 DEPARTMENT OF REVENUE TAX CLEARANCE REQUEST FORM

- A. For projects funded through the Department of Education (debt reimbursement or DEED grants), the Contractor shall furnish to the Owner a Tax Clearance Request Form approved by the Department of Revenue, contained in this section, with his application for Final Payment.

A.19 DEPARTMENT OF LABOR TAX CLEARANCE REQUEST FORM

- A. For projects funded through the Department of Education (debt reimbursement or DEED grants), the Contractor shall furnish to the Owner a Tax Clearance Request Form approved by the Department of Labor, contained in this section, with his application for Final Payment.

A.20 SUBMITTAL CONTROL FORM

- A. Submittals will be executed on Anchorage School District Submittal Control Forms.

A.21 STATE OF ALASKA SEX OFFENDER/CHILD KIDNAPPER REGISTRY CONTRACTOR CERTIFICATION

- A. Contractor certifies contractor is familiar with and is in compliance with Anchorage School Board Policy 3515.5, that no employee or agent of contractor who will be on district property is registered as a sex offender or child kidnapper in Alaska [Alaska Department of Public Safety "Sex Offender/Child Kidnapper Registry"] or in any other state in which the

employee or agent previously lived or worked, and that, to contractors knowledge, no employee or agent is a convicted sex offender or child kidnapper.

A.22 STATE OF ALASKA SEX OFFENDER/CHILD KIDNAPPER REGISTRY SUBCONTRACTOR CERTIFICATION

- A. Subcontractor certifies subcontractor is familiar with and is in compliance with Anchorage School Board Policy 3515.5, that no employee or agent of subcontractor who will be on district property is registered as a sex offender or child kidnapper in Alaska [Alaska Department of Public Safety "Sex Offender/Child Kidnapper Registry"] or in any other state in which the employee or agent previously lived or worked, and that, to subcontractors knowledge, no employee or agent is a convicted sex offender or child kidnapper.

A.23 STATE OF ALASKA SEX OFFENDER/CHILD KIDNAPPER REGISTRY SUB-SUBCONTRACTOR CERTIFICATION

- A. Sub-subcontractor certifies sub-subcontractor is familiar with and is in compliance with Anchorage School Board Policy 3515.5, that no employee or agent of sub-subcontractor who will be on district property is registered as a sex offender or child kidnapper in Alaska [Alaska Department of Public Safety "Sex Offender/Child Kidnapper Registry"] or in any other state in which the employee or agent previously lived or worked, and that, to sub-subcontractors knowledge, no employee or agent is a convicted sex offender or child kidnapper.

A.24 LIST OF FEDERALLY REGISTERED ALASKAN APPRENTICESHIP PROGRAMS

- A. This list from the Federal Department of Labor will provide contractors with the list Alaskan apprenticeship programs and crafts/trades categories that are subject to ASD's AUP.

A.25 APPRENTICESHIP UTILIZATION FORM

- A. The Prime Contractor will list the crafts/trades categories required to complete the project that have Alaskan Federally Registered Apprenticeship Programs. This list will include all crafts/trades categories for both the prime and subcontractors.

A.26 APPRENTICESHIP UTILIZATION PROGRAM CALCULATION FROM

- A. This form will be submitted by the prime contractors to demonstrate compliance with the apprenticeship utilization percentage for both prime and subcontractors on the project.

A.27 PENALTY TABLE

- A. This table lists the penalties for non-compliance with the AUP.

A.28 SCWA PRE-JOB FORM (Only Required on SCWA projects)

- A. The Contractor shall complete and submit to the Project Manager prior to the SCWA Pre-Job Conference.

ANCHORAGE SCHOOL DISTRICT APPLICATION FOR PAYMENT	
Project Name: ITB/RFP No.: Name of Contractor: Address:	Contract #: Application #: Application date: Period to:
COMPUTATION OF PAYMENT DUE	
(a) Original contract amount (ASD 100A)	\$ -
(b) Net Change by Change Orders (ASD 100B)	\$0.00
(c) Adjusted contract amount to date (a+b)	\$ -
(d) Work Completed to Date (ASD 100B)	\$ -
(e) Materials Stored (ASD 100B)	\$ -
(f) Total Completed and Stored To Date (d+e)	\$ -
(g) Less: amount retained in accordance with contract terms	\$ -
(h) Net amount earned on contract work to date (f-g)	\$ -
(i) Less: amount of previous payments (ASD 100B)	\$0.00
0) CURRENT PAYMENT DUE (h-i)	\$ -
(k) Balance to Finish (c-h)	\$ -
CERTIFICATION OF CONTRACTOR According to the best of my knowledge and belief, I certify that all items and amounts shown on the face of this Application for Payment are correct; that all work has been performed and/or material supplied in full accordance with the requirements of the referenced Contract, and/or duly authorized deviations, substitutions, alterations, and/or additions; that payment has been made for all materials received and work performed for which previous pay applications were approved; that no part of the "Balance Due This Payment" has been received and that it is currently due.	
_____ (Contractor)	By _____ (Signature of Authorized Representative)
_____ Date	_____ Title:
CERTIFICATION OF ARCHITECT According to the best of my knowledge and belief, and based on on-site observations, I certify that the work completed as shown on ASD 100B has progressed as indicated, the quality of work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the Current Payment Due shown above.	
_____ Date	_____ (Signature of Architect)
APPROVED FOR PAYMENT	
_____ Date	_____ (ASD Project Manager)

ASD 100 (1/15)

[illegible]

[illegible]

ASD# 100B (1/15) Continuation
Sch. of Values/
Work Completed

Page 1
of Detail Schedule

[illegible]

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: _____ Contract Number: _____

Contractor: _____ Contract Date: _____

Architect: _____ Date of Issuance: _____

Owner: ANCHORAGE SCHOOL DISTRICT
1301 Labar Street
Anchorage, Alaska 99515**Project Description:**

The work performed under this contract has been reviewed and found to be substantially complete. The date of Substantial Completion is hereby established as: _____

Definition of Date of Substantial Completion:

The date of substantial completion of the project is the date certified by the Owner when the work is substantially complete in accordance with, and defined in the Contract Documents.

A list of items to be completed or corrected, prepared by the Owner and verified and amended by the Architect is appended hereto. The failure to include any items or such list does not alter the responsibility of the Contractor to complete the project in accordance with the Contract Documents.

The Contractor will complete or correct the work on the list of items appended hereto within 30 days from the date of substantial completion.

The responsibilities of the Owner and the Contractor for maintenance, heat, utilities, and insurance shall be as follows: _____

In reliance upon the certification of the Contractor and the Architect, the Owner hereby accepts the project as substantially complete. In accordance with the Contract Documents, the Owner hereby elects to assume occupancy of _____

_____ at _____ a.m./p.m. on
_____.

Owner: **ANCHORAGE SCHOOL DISTRICT**

By: _____ Title: _____ Date: _____

Architect: _____

By: _____ Title: _____ Date: _____

Contractor: _____

By: _____ Title: _____ Date: _____

ASD 101 (01/03)

**CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS
ANCHORAGE SCHOOL DISTRICT**

WHEREAS, by the terms of a contract dated _____ entered into by the
Anchorage School District, and _____ for the construction of _____

The undersigned, pursuant to the General Conditions of the Contract for the construction,
_____, hereby certifies that, except as listed below, he has paid
in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor, and services
performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in
connection with the performance of the Contract referenced above for which the District or his property might in any way
be held responsible.

EXCEPTIONS:

IN WITNESS WHEREOF, the seal of the undersigned Contractor have been hereunto set this
_____ day of _____

, at _____

By _____

being first duly sworn, say that I am the agent for and executed
the foregoing under authority of said company to do so; that I have read the same, know the contents thereof, and the
matters set forth therein are as I truly believe.

By _____

Subscribed and sworn to before me this _____ day of _____

, at _____

Notary Public in and for _____

My Commission Expires _____

RELEASE ON CONTRACT
ANCHORAGE SCHOOL DISTRICT

WHEREAS, by the terms of a contract dated _____ entered into by the Anchorage School District, and _____ for the construction of _____,

it is provided that:

"Neither the final payment nor the remaining retained percentage shall become due until the Contractor shall provide the Owner (1) with a waiver and release of liens, on the forms provided by the Owner, executed by the Contractor..."

NOW THEREFORE, in consideration of the premises and the payment by the Anchorage School District to the undersigned Contractor of the amounts due under the contract and any changes or modifications thereto, to wit, the sum

of \$ _____ Dollars,
(Numbers) (In Words)

the undersigned Contractor hereby releases and forever discharges the Anchorage School District including its property, particularly that real property known as the _____

of the Anchorage School District, of and from all manner of debts, dues and sum or sums of money, accounts, claims, and demands whatsoever, in Law and in equity, under or by virtue of said contract, and warrants good title to all material, supplies and equipment installed or incorporated in the project and all work delivered to the premises, together with all improvements and appurtenances constructed thereon by:

_____ to the Anchorage School District free of any claims, liens or encumbrances. Neither the undersigned nor any person, firm or corporation furnishing material or labor for any work covered by this Contract has any right to a lien upon the premises nor improvement thereon, except:

—

IN WITNESS WHEREOF, the signature of the undersigned Contractor has been hereunto set this

_____ day of _____, 20____, at _____, Alaska.

Signature: _____

Printed Name: _____

I, _____, being first duly sworn, say that I am the agent for and executed the foregoing under authority of said company to do so; that I have read the same, know the contents thereof, and the matters set forth therein are as I truly believe.

Signature: _____

Subscribed and sworn to before me this _____ day of _____, 20____, at _____, Alaska.

Notary Public in and for _____

My Commission Expires: _____.

ASD Form 103

CONSENT OF SURETY COMPANY
TO FINAL PAYMENT

PROJECT: _____

PROJECT NUMBER: _____

CONTRACTOR: _____

CONTRACT DATE: _____

TO: Anchorage School District

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above:

_____ (Surety Company)

on bond of

_____ (Contractor)

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to Anchorage School District, Owner as set forth in said Surety Company's bond. Surety expressly agrees that any and all valid claims of sub-Contractors and all persons supplying labor or materials to the project will be satisfied by Contractor or Surety in a timely manner

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this

_____ day of _____, 20____.

Name of Surety Company

Attest

Signature of Authorized Representative

Title

ASD 104

**CONSENT OF SURETY TO REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE
ANCHORAGE SCHOOL DISTRICT**

PROJECT:

PROJECT NUMBER:

TO: Anchorage School District

CONTRACT DATE:

CONTRACTOR:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above,
the:

_____ (Surety Company)

on bond of

_____ (Contractor)

HEREBY APPROVES OF THE REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE to the Contractor
as follows:

The surety agrees that such reduction in or partial release of retainage to the Contractor shall not relieve the
Surety of any of its obligations to **ANCHORAGE SCHOOL DISTRICT, OWNER**

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this
day of .

Name of Surety Company

Attest

Signature of Authorized Representative

Title

ASDF Form 105

CERTIFICATE OF LIABILITY INSURANCE		DATE (MM/DD/YYYY)																																						
PRODUCER INSURED		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">INSURERS AFFORDING COVERAGE</th> <th style="text-align: left;">NAIC #</th> </tr> <tr><td>INSURER A:</td><td></td></tr> <tr><td>INSURER B:</td><td></td></tr> <tr><td>INSURER C:</td><td></td></tr> <tr><td>INSURER D:</td><td></td></tr> <tr><td>INSURER E:</td><td></td></tr> </table>	INSURERS AFFORDING COVERAGE	NAIC #	INSURER A:		INSURER B:		INSURER C:		INSURER D:		INSURER E:																											
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DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS																																								
CERTIFICATE HOLDER		CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL _____ DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE																																						

ACORD 25 (2009/01)

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IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

ACORD 25 (2009/01)

Anchorage School District

Facilities Maintenance
1301 Labar Street
Anchorage, Alaska 99515

Phone: (907) 348-5215
Fax: (907) 348-5227

REQUEST FOR INFORMATION

No. _____

TITLE: _____

DATE: _____

PROJECT: _____

Project No.: _____

TO: _____

REQUEST: _____

ANSWER: _____

Answered By: _____
Printed Name

Signature

Date

This is not an authorization to proceed with any work involving additional cost and / or time.
Notification must be given in accordance with Contract Documents if any clarification, variation or Architects/Engineers responses cause any change to the Contract Documents.

ANCHORAGE SCHOOL DISTRICT USE ONLY:
Reviewed By: _____

Is this Request for Information associated with an Request for Proposal?
Yes ____ No ____

Signed: _____ Date: _____
Project Manager

Request for Proposal # _____



Capital Planning & Construction
1301 Labor St
Anchorage, Alaska 99515
Phone: (907) 348-5284
Fax: (907) 348-5227

Project:

PCO #XXX

Prime Contract Potential Change Order #XXX: Name

TO:	FROM:
PCO NUMBER/REVISION:	CONTRACT:
REQUEST RECEIVED FROM:	CREATED BY:
STATUS:	CREATED DATE:
REFERENCE:	PRIME CONTRACT
FIELD CHANGE:	CHANGE ORDER:
LOCATION:	CHANGE ORDER
SCHEDULE IMPACT:	REQUEST:
CHANGE REASON:	ACCOUNTING
	METHOD:
	PAID IN FULL:
	TOTAL AMOUNT:

Within seven (7) days, submit an itemized proposal.

Provide labor, material, equipment, and supervision necessary to complete changes to project as represented by the documentation indicated below. The quoted price shall include all direct and indirect costs (additive and deductive) associated with and resulting from this work, per the General Conditions of the Contract. Provide lump sum proposal properly itemized and supported by sustaining data to permit evaluation. The quoted price shall be considered full compensation and include all delay, impact, and actual cost associated with the resulting changes from this extra work.

POTENTIAL CHANGE ORDER DESCRIPTION: *(The Contract Is Changed As Follows)*

ATTACHMENTS:

APPROVAL

By: _____	By: _____
Project Manager	Contractor
Date: _____	Date: _____
By: _____	By: _____
Construction Supervisor	Senior Director of CP&C
Date: _____	Date: _____
Required if amount exceeds \$10,000	Required if amount exceeds \$50,000

Capital Planning & Construction

page 1 of 1

CERTIFICATE OF COMPLIANCE

No final payment shall be made until the Contractor shall file with the Owner, prior to acceptance of the work, a notarized Certification of Compliance in the following form:

The Contractor does hereby certify that all work has been performed and materials supplied in accordance with the Drawings, Specifications and Contract Documents for the above work, and that:

No less than the prevailing rates of wages as ascertained by the governing body of the Contracting Agency has been paid to laborers, workmen and mechanics employed on this work;

There have been no unauthorized substitutions of Subcontractors; nor have any subcontracts been entered into without prior notice having been submitted to the Owner prior to the start of such subcontracted work;

No subcontract was assigned or transferred or performed by any Subcontractor other than the original Subcontractor, without prior notice having been submitted to the Owner together with the names of all Subcontractors;

All claims for material and labor and other paid service performed in connection with these specifications have been paid;

All monies due the State Industrial Accident Fund, the State Unemployment Compensation Trust Fund, the State Tax Commission, Hospital Associations and/or others have been paid.

In WITNESS WHEREOF, the undersigned has signed and sealed this instrument this

_____ day of _____, 20__.

(Firm Name)

(Signature)

(Title)

(Attest)

(SEAL IF BIDDER IS A CORPORATION)

As determined necessary, evidence of compliance may be required to be submitted with and made a part of this Certificate of Compliance.

WARRANTY OF WORK

Prior to Final Payment, the Contractor shall furnish to the Owner a Warranty of Work in the following form:

The Contractor does hereby warrant all work and materials to be in full and complete accordance with the Contract Documents and Agreement between Owner and Contractor, and requirements appertaining thereto; that all work and materials are free from any and all defects and imperfections, and fully suitable for the use and purposes for which each and every part is intended. The Contractor also agrees that, should any defect develop or appear which the Project Manager or Owner's Representative finds was Not caused by improper use, the Contractor shall promptly, upon demand, fully correct, substitute and make good any such defective material without any cost to the Owner and will save the Owner harmless against any claim, demand, loss or damage by reason of any breach of this warranty.

The period of this warranty shall commence on the date of Substantial Completion.

The warranty shall continue to be in full force and effect for the period of one (1) year, except for those items for which a longer period of warranty is specifically stated in the Warranties for work in Technical Sections of the Specifications.

Warranties for work stated in Technical Section shall continue in full force and effect for the respective periods expressly stated.

In WITNESS WHERE, the undersigned has signed and sealed this instrument this

_____ day of _____, 20__.

(Firm Name)

(Signature)

(Title)

(Attest)

(SEAL IF BIDDER IS A CORPORATION)

AHERA Exclusion Document

Contractor's Verification of Asbestos-Free Construction

Project: _____ Project Number: _____

Contractor: _____ Date: _____

To: Anchorage School District
Facilities Coordinator,
AHERA LEA Designated Person

To the best of our knowledge, no asbestos-containing building materials were installed in this project.

Attest: _____
Signature of Authorized Representative

Title



Capital Planning & Construction
 1301 Labar St
 Anchorage, Alaska 99515
 Phone: (907) 348-6264
 Fax: (907) 348-6227

PCCO #XXX

Project:

Prime Contract Change Order #XXX:

TO:	FROM:
DATE CREATED:	CREATED BY:
CONTRACT STATUS:	REVISION:
DESIGNATED REVIEWER:	REVIEWED BY:
DUE DATE:	REVIEW DATE:
CONTRACTUAL COMPLETION DATE:	
SCHEDULE IMPACT:	EXECUTED:
CONTRACT FOR:	TOTAL AMOUNT:
DESCRIPTION:	
ATTACHMENTS:	

CHANGE ORDER REQUESTS IN THIS CHANGE ORDER:

COR #	Issue	Description	Cost
TOTAL:			\$ 0.00

CHANGE ORDER LINE ITEMS: reason

Original contract sum	\$
Previously authorized change orders	\$
Previous contract amount	\$
Current change order amount	\$
New contract sum	\$
Percent of original contract sum	

Contractor _____ DATE _____

Senior Director of Purchasing/Warehouse _____ DATE _____

Capital Planning & Construction

page 1 of 1

SAMPLE FORMS AND CERTIFICATES

Division 0
Section 00630

CONTRACTOR'S QUALITY CONTROL REPORT (CQC)		DATE	REPORT NO.
CONTRACT NO. AND NAME OF CONTRACTOR		DESCRIPTION AND LOCATION OF THE WORK:	
WEATHER CLASSIFICATION:			CLASSIFICATION:
CLASS A	No interruption of any kind from weather conditions occurring on this or previous shifts.	CLASS _____	
CLASS B	Weather occurred during this shift that caused a complete stoppage of all work.	TEMPERATURE:	
		MAX _____ MIN _____	
CLASS C	Weather occurred during this shift that caused a partial stoppage of work.		
CLASS D	Weather overhead excellent or suitable during shift. Work completely stopped due to results of previous adverse weather.	PRECIPITATION:	
CLASS E	Weather overhead excellent or suitable during shift but work partially stopped due to previous adverse manner.	INCHES _____	
OTHER	Explain.		
CONTRACTOR/SUBCONTRACTORS AND AREA OF RESPONSIBILITY FOR WORK PERFORMED TODAY: (Attach list of items of equipment either idle or working as appropriate.)			
a. _____			
b. _____			
c. _____			
d. _____			
e. _____			
f. _____			
g. _____			
h. _____			
1. WORK PERFORMED TODAY: (Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in Table above.)			
2. TYPE AND RESULTS OF INSPECTION: (Indicate whether P-Preparatory, I-Initial, or F-Follow-up and include satisfactory work completed or deficiencies with action to be taken.)			

3. TESTS REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS:
4. QUALITY CONTROL REPORTS (items requiring special inspections):
5. VERBAL INSTRUCTIONS RECEIVED: (List any instructions given by Owner on construction deficiencies, retesting required, etc., with action to be taken.)
6. REMARKS: (Cover any conflicts in plans, specification or instructions: acceptability of incoming materials; offsite surveillance activities; progress of work, delays, causes and extent thereof; days of no work with reasons for same.)
CONTRACTOR'S CERTIFICATION: I certify that the above report is complete and correct and that all material and equipment used, work performed and tests conducted during this reporting period were in strict compliance with the contract plans and specifications except as noted above. _____ CONTRACTOR'S APPROVED AUTHORIZED REPRESENTATIVE

Department of Labor and Workforce Development
Labor Standards and Safety Division
Wage and Hour Administration
www.labor.state.ak.us/lss/lss.htm

- This form must be typed or printed in ink.
- Fill in all blanks or form will be returned for correction (see back).
- Please allow a minimum of 10 working days for processing.

ENTER YOUR FAX # _____
AND LIST YOUR MAILING ADDRESS BELOW

Contractor, company or agency name, address, city, state & ZIP + 4

NOTICE OF WORK

Filing Fee Required

Project name													
Specific site description													
Contract awarding agency													
Address													
City	State ZIP + 4												
Contract awarding agency contact person Phone #													
Location and city where work is to be performed													
Date work to begin (m/d/y)	Do you intend to use subcontractors? ☐ Yes ☐ No												
Final Bid Date	Contract #												
Primary contractor (has contract with the public agency)													
List all contractors & subcontractors (Attach extra sheet if necessary)	<table border="1"> <thead> <tr> <th>Type of work</th> <th>Amount of subcontract</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Type of work	Amount of subcontract										
Type of work	Amount of subcontract												
CERTIFICATION: I hereby certify that the above information is correct. Enclosed is the filing fee computed at 1% of the total amount of all my subcontractors on this project. This amount includes the contract value for the primary contractor. I understand that the maximum fee I am required to pay is \$5,000. I further certify that all contractors shall be made aware of the requirements of AS 36.05.010 - .110 and AS 36.10.007 - .990 before working.	Total value of subcontracts	\$											
	Value of work performed by primary contractor	+	\$										
	Amount subject to fee		\$										
	Multiply by .01												
	Total fee enclosed =		\$										
ROUND FEES TO NEAREST DOLLAR													
For Dept. Use Only													
Amount: _____ Check Number: _____ Cash _____ Received By: _____ Date: _____ Credit Card Confirmation _____ Visa _____ MC _____ Project Name _____ DOLWD Project # _____													
Wage & Hour date-stamped copy of this form will serve as temporary receipt.													
Signature _____ Date _____ Title _____ Fax # _____ Phone # _____		For Dept. Use Only Accepted: By _____ Department of Labor and Workforce Development											

How to expedite the processing of your form:

Acceptance of this notice will be based on the information provided by the primary contractor.

ERRORS THAT CAUSE REJECTION

No fee included or incorrect amount. If total contract amount is less than \$25,000 no filing fee is required. Contract amounts paid to owner/operators with no employees are exempt from the fee. **The maximum total filing fee for any one project is \$5,000.00.**

Missing – Enter the “time and materials” if applicable. The exact dollar amount will be required on the Notice of Completion to be filed when the project is done.

Missing – The name of each subcontractor and the amount or estimated amount of the subcontract is required. Enter the “time and materials” if applicable. The exact dollar amount will be required on the Notice of Completion to be filed when the project is done.

Missing – Notice of Work must be signed by an authorized representative.

FILING INSTRUCTIONS

If there is not enough space to list all contractor/subcontractor information, attach additional sheets.

A Wage and Hour Administration (WH) date-stamped copy of this form will serve as a temporary receipt, while the acceptance of fees is processed. WH will mail or fax the accepted copy of this notice to the organization provided on the front of this form. Make a copy for your records. This will serve as your notice that the fees paid have been accepted by WH.

For questions call the nearest WH office:

Juneau: (907) 465-4842 Anchorage: (907) 269-4900 Fairbanks: (907) 451-2886

For more forms, see www.labor.state.ak.us/lss/lssforms.htm

Submit the notice and the appropriate filing fee to:

Alaska Department of Labor and Workforce Development
Wage and Hour Administration
P.O. Box 107021
Anchorage, AK 99510-0721

If no fee is required, you may fax the notice to (907) 269-4915

Alaska Department of Revenue TAX CLEARANCE REQUEST FORM

Applicant's Name: _____

EIN/SSN: _____

Mailing Address: _____

City/State/Zip Code: _____

I hereby authorize the Alaska Department of Revenue to release to

(Name of Department or Agency)

Department's Statute on tax clearance: _____

whose facsimile number or email address is _____

confirmation that all taxes, penalties and interest due the Department of Revenue have been paid and that there are no outstanding amounts due.

Signed: _____

Printed Name: _____

Title*: _____

*If tax clearance is being requested on behalf of a corporation/LLC/partnership, must be signed by an officer/member/partner.

Send completed form by email to the Department of Revenue at DOR.tax.accounting@alaska.gov

DEPARTMENT USE ONLY

- ☐ *The above applicant is current on all taxes, penalties and interest due and is in good standing with the Alaska Department of Revenue.*
- ☐ *The above applicant is not current on all taxes, penalties and interest due and is not in good standing with the Alaska Department of Revenue.*

Department of Revenue Representative

Date

TaxClearanceRequestForm (Rev 2/21)



THE STATE
of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Labor and Workforce
Development

Division of Employment and Training Services
Employment Security Tax

P.O. Box 115509
Juneau, AK 99811-5509
Relay Alaska (in state): (800) 770-8973 or 7.1.1
Relay Alaska (out of state): (800) 770-8255
Toll free: (888) 448-2937
Phone: (907) 465-2787
Fax: (907) 465-2374

Tax Clearance Request Form for Contractors

Date of request: _____

Business name of the contractor a Tax Clearance is being requested for: _____

Business address: _____

Business contact phone number: _____

Federal Identification Number: _____

Alaska Employer Account Number: _____

Specific time period a tax clearance is being requested for (*i.e. beginning and ending date of a subcontract agreement*):

Subcontract project name: _____

Name and address of the person this Tax Clearance is to be returned to: _____

Comments or additional information: _____

For agency use only:

- ☐ Tax Clearance is granted
- ☐ Tax Clearance is not granted (*please have employer contact the department*)
- ☐ No account on file, liability unknown (*please have employer contact the department*)
- ☐ Employer has stated no employees, Tax Clearance not required.

Agency representative signature: _____ Date: _____

Agency representative title: _____

We are an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. labor.alaska.gov/estax

Rev. 8/2018

Submittal Control Form

Project Title:

Project No:

Contract No:

Contractor:

Submittal No.

Address:

New Submittal

Contact:

Resubmittal

Telephone:

Fax:

Submittal is as Specified?

Yes

No

2. Revision Number:

3. Submittal Control No.:

4. Description:

5. Spec. Section/Dwg Ref.:

Number of Copies:

Remarks:

Review is for general design or arrangement only. Not for quality, dimension or fit.

Review Stamp

Submitted By

Date _____

Forwarded for Design Review:

Date _____

ASD Reviewed / Forwarded By

STATE OF ALASKA SEX OFFENDER/CHILD KIDNAPPER REGISTRY
CONTRACTOR CERTIFICATION

Pursuant to School Board Policy 3515.5, Sex Offenders and Child Kidnappers, I
_____ the undersigned Principal for
_____ on Solicitation _____, certify:

1. That I, either personally or through a person designated by me, have researched the State of Alaska Sex Offender/Child Kidnapper Registry to confirm that no employee or agent who may enter Anchorage School District property in connection with the contract is listed in the Registry.

2. That I have required all subcontractors and any of their sub-subcontractors to certify, or they will require all subcontractors and any of their sub-subcontractors to certify, that they researched the State of Alaska Sex Offender/Child Kidnapper Registry to confirm that no employee or agent who may enter district property in connection with the contract is listed in the Registry. I will provide all such certification to the district upon request.

3. To my knowledge, no any employee or agent of bidder, or any sub-contractor or sub-sub-contractor of bidder, who may enter district property in connection with the contract is: (a) listed in the sex offender/child kidnapper registry of any other state; or, (b) is a convicted sex offender or child kidnapper.

4. I have read Anchorage School Board Policy 3515.5 and certify that the bidder will comply with Board Policy 3515.5. Bidder will not send any employee or agent who is a sex offender or child kidnapper to District property, as that term is defined in Board Policy 3515.5.

Contractor Name: _____

Dated: _____

By: _____
Signature

Printed Name

Title: _____

STATE OF ALASKA SEX OFFENDER/CHILD KIDNAPPER REGISTRY
SUBCONTRACTOR CERTIFICATION

Pursuant to School Board Policy Section 3515.5, Sex Offenders and Child Kidnappers, I
_____ the undersigned Principal for
_____ on Solicitation _____, certify:

1. that I, either personally or through a person designated by me, have researched the State of Alaska Sex Offender/Child Kidnapper Registry to confirm that no employee or agent who may enter Anchorage School District property in connection with the contract is listed in the Registry.

2. that I have required all subcontractors and any of their sub-subcontractors to certify, or they will require all subcontractors and any of their sub-subcontractors to certify, that they researched the State of Alaska Sex Offender/Child Kidnapper Registry to confirm that no employee or agent who may enter district property in connection with the contract is listed in the Registry. I will provide all such certification to the district upon request.

3. that if my company enters into an agreement to perform work as a Subcontractor for _____ the General Contractor for the district under Solicitation No. _____, my company will not allow any worker whose name appears on the State of Alaska Sex Offender/Child Kidnapper Registry to perform work on or at the Project site.

Subcontractor Name: _____ Dated: _____

By: _____
Signature Printed Name

Title: _____

STATE OF ALASKA SEX OFFENDER/CHILD KIDNAPPER REGISTRY
SUB-SUBCONTRACTOR CERTIFICATION

Pursuant to School Board Policy Section 3515.5, Sex Offenders and Child Kidnappers, I
_____ the undersigned Principal for
_____ on Solicitation _____, certify:

1. that I, either personally or through a person designated by me, have researched the State of Alaska Sex Offender/Child Kidnapper Registry to confirm that no employee or agent who may enter Anchorage School District property in connection with the contract is listed in the Registry.

2. that if my company enters into an agreement to perform work as a Subcontractor for _____ the General Contractor for the district under Solicitation No. _____, my company will not allow any worker whose name appears on the State of Alaska Sex Offender/Child Kidnapper Registry to perform work on or at the Project site.

Sub-SubContractor Name: _____ Dated: _____

By: _____
Signature Printed Name

Title: _____

ANCHORAGE SCHOOL DISTRICT'S
LIST OF
ALASKAN FEDERALLY REGISTERED APPRENTICESHIP PROGRAMS

Program Number	Program Name	Program Status	Address	Occupation Title
A0000910003	ARC of Alaska, Inc.	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	CARPENTER
A0000910004	ALASKA ACQUISICAL	Registered	900 Warren Street KETCHIKAN AK 99901	CARPENTER
A0000910005	Alaska Construction Training Trust	Registered	8751 King Street Anchorage AK 99515	CARPENTER
A0000910006	Collins Construction, Incorporated	Suspended	1151 W. Nugget Avenue Wasilla AK 99554	CARPENTER
A0000910007	Finch Works, LLC	Registered	P.O. Box 521791, Box Lake AK 99653	CARPENTER
A0000910008	H Construction, LLC	Registered	15581 Tealwood Circle Palmer AK 99645	CARPENTER
A0000910009	ICE SERVICES, INCORPORATED	Registered	2606 C STREET, SUITE 2B ANCHORAGE AK 99503	CARPENTER
A0000910010	WOODRIGHT CONSTRUCTION	Registered	P.O. Box 6235 Ketchikan AK 99901	CARPENTER
A0000910011	YUKON-KUSKOKWIM DELTA APPRENTICESHIP PROGRAM	Registered	P.O. Box 863 BETHEL AK 99559	CARPENTER
A0000910012	Alaska Construction Training Trust	Registered	8751 King Street Anchorage AK 99515	CARPENTER
A0000910013	Alaska Construction Training Trust	Registered	8751 King Street Anchorage AK 99515	CARPENTER
A0000910014	Alaska Toward Trades JATC	Registered	822 East 8th Avenue, Suite 10 Anchorage AK 99501	CARPENTER
A0000910015	Baty Concrete Construction, LLC	Registered	P.O. Box 2061 Fairbanks AK 99708	CEMENT MASON
A0000910016	ARC of Alaska, Inc.	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	CONSTRUCTION CRAFT LABORER
A0000910017	Alaska Laborers JATC	Registered	17805 OLD GREEN HWY CHIGLIAK AK 99567	CONSTRUCTION CRAFT LABORER
A0000910018	Rock-n-Road Construction, Inc.	Registered	P.O. Box 1188 Petersburg AK 99833	CONSTRUCTION CRAFT LABORER
A0000910019	Wolverine Supply, Inc.	Registered	5009 E. Blue Lupine Drive Wasilla AK 99554	CONSTRUCTION CRAFT LABORER
A0000910020	Yukon River Towing, LLC	Registered	P.O. Box 128 Emmoak AK 99581	CONSTRUCTION DRIVER
A0000910021	ALASKA TEAMSTER-EMPLOYER SERVICE TRAINING TRUST	Registered	520 East 34th Avenue, Suite 202 ANCHORAGE AK 99503	CONSTRUCTION DRIVER
A0000910022	Rock-n-Road Construction, Inc.	Registered	P.O. Box 1188 Petersburg AK 99833	DIESEL MECHANIC
A0000910023	After Hours Truck & Fleet	Registered	988 Deane Street Fairbanks AK 99709	DIESEL MECHANIC
A0000910024	Holland America Princess Alaska - Yakon	Registered	450 Ocean Dock Road Anchorage AK 99501	DIESEL MECHANIC
A0000910025	Peak Offroad Service Company - Bristol Bay Industrial	Registered	5015 Business Park Blvd., Suite 400 Anchorage AK 99503	DIESEL MECHANIC
A0000910026	RL Trucking, LLC	Registered	1221 East 71st Avenue Anchorage AK 99518	DIESEL MECHANIC
A0000910027	907 Electric	Registered	11134 June Agnes Circle Eagle River AK 99577	ELECTRICIAN
A0000910028	ARC of Alaska, Inc.	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	ELECTRICIAN
A0000910029	Access Electric & General Trades, LLC	Registered	P.O. Box 1761 Seward AK 99664	ELECTRICIAN
A0000910030	Alpine Electric	Registered	P.O. Box 7601 Nikiski AK 99565	ELECTRICIAN
A0000910031	ANCHOR ELECTRIC	Registered	5800 B ST ANCHORAGE AK 99518	ELECTRICIAN
A0000910032	Alaska Native Tribal Health Consortium, Division of Environmental Health & Engineering	Registered	4500 Diplomacy Drive, Suite 454 Anchorage AK 99508	ELECTRICIAN
A0000910033	Ala-Wa, Inc.	Registered	35555 Fox Trail Road Seldovia AK 99669	ELECTRICIAN
A0000910034	Alpine Electric	Registered	P.O. Box 385 Unalakleet AK 99685	ELECTRICIAN
A0000910035	Amper Electric, Inc.	Registered	13901 East Moynihan Court Palmer AK 99645	ELECTRICIAN
A0000910036	ANCHOR ELECTRIC	Registered	3400 International Street Fairbanks AK 99701	ELECTRICIAN
A0000910037	Anderson Brothers Electric, LLC	Registered	5362 COMMERCIAL DRIVE JUNEAU AK 99801	ELECTRICIAN
A0000910038	Arctic Fox Electric, LLC	Registered	16002 Ocean View Drive Juneau AK 99801	ELECTRICIAN
A0000910039	AUKE BAY ELECTRIC	Registered	3251 Eastwind Court Anchorage AK 99516	ELECTRICIAN
A0000910040	BEAR ELECTRIC, INCORPORATED	Registered	P.O. BOX 210134 ALUKE BAY AK 99821	ELECTRICIAN
A0000910041	Bering Straits Development Company	Registered	2008 Perkins Drive FAIRBANKS AK 99709	ELECTRICIAN
A0000910042	Bodding Electric, LLC	Registered	P.O. Box 1008 Nome AK 99762	ELECTRICIAN
A0000910043	Bridwell, Incorporated	Registered	P.O. Box 871301 Wasilla AK 99687	ELECTRICIAN
A0000910044	Buwell Electric, LLC	Registered	11425 Avon Street ANCHORAGE AK 99516	ELECTRICIAN
A0000910045	Cable Maintenance	Registered	P.O. Box 66 Wrangell AK 99929	ELECTRICIAN
A0000910046	Cajon Electric, LLC	Registered	1295 Moha Street North Pole AK 99705	ELECTRICIAN
A0000910047	CHANNEL ELECTRIC, INC.	Registered	22356 Whispering Birch Drive Chugach AK 99567	ELECTRICIAN
A0000910048	CITY & BOROUGHT OF SITKA, ENVIRONMENTAL DEPT.	Registered	1155 COPPER RIDGE LANE KETCHIKAN AK 99901	ELECTRICIAN
A0000910049	CNS, Inc.	Registered	100 LINCOLN STREET SITKA AK 99835	ELECTRICIAN
A0000910050	DHS Electric, LLC	Registered	1285 Overhill Drive Fairbanks AK 99709	ELECTRICIAN
A0000910051	Eberline Building and Supply	Registered	18207 Stillwater Drive Eagle River AK 99577	ELECTRICIAN
A0000910052	Encore Electric, LLC	Registered	15775 Walker Street North Seldovia AK 99669	ELECTRICIAN
A0000910053	Evans Electric	Registered	5640 B Street Anchorage AK 99518	ELECTRICIAN
A0000910054	Facility Contractors, LLC	Registered	P.O. Box 1343 Kotzebue AK 99752	ELECTRICIAN
A0000910055	Frontier Electrical Services, LLC	Registered	P.O. Box 2034 Cordova AK 99574	ELECTRICIAN
A0000910056	Ruck Electric, Incorporated	Registered	P.O. Box 3030 Valdez AK 99686	ELECTRICIAN
A0000910057	G2 Construction, Inc.	Registered	9400 Vanguard Drive, Suite A Anchorage AK 99507	ELECTRICIAN
A0000910058	Glacier Electric	Registered	P.O. Box 10690 Fairbanks AK 99701	ELECTRICIAN
A0000910059	GRS Controls	Registered	P.O. Box 112002 Anchorage AK 99511	ELECTRICIAN
A0000910060	Hanson Construction, Incorporated	Registered	P.O. Box 56469 North Pole AK 99705	ELECTRICIAN
A0000910061	Heda Greens Creek Mining Company	Registered	38050 Nenana Avenue Sterling AK 99672	ELECTRICIAN
A0000910062	Hometown Connection, Inc.	Registered	P.O. Box 32199 Juneau AK 99801	ELECTRICIAN
A0000910063	Huffer Electric, Inc.	Registered	P.O. Box 439 Seward AK 99664	ELECTRICIAN
A0000910064	ICE SERVICES, INCORPORATED	Registered	2606 C STREET, SUITE 2B ANCHORAGE AK 99503	ELECTRICIAN
A0000910065	ICELI Selfcode, Incorporated	Registered	411 N. Nordic Drive Petersburg AK 99833	ELECTRICIAN
A0000910066	INLET ELECTRICAL CONTRACTORS, LLC	Registered	P.O. BOX 202109 ANCHORAGE AK 99520	ELECTRICIAN
A0000910067	Integrated Communication Designs, Inc.	Registered	P.O. Box 111551 Anchorage AK 99511	ELECTRICIAN
A0000910068	Integrity Electric, Inc.	Registered	59555 Ryan Lane Seldovia AK 99669	ELECTRICIAN

Program Number	Program Name	Program Status	Address	Occupation Title
AK001.00402	Intelligent Design, LLC	Registered	11741 Timberlane Drive Anchorage AK 99515	ELECTRICIAN
AK001.00202	JH ELECTRIC, INCORPORATED	Registered	P.O. BOX 3123 SOLDOTNA AK 99569	ELECTRICIAN
AK001.060015	Satowak Holdings	Registered	2001 E. 88TH AVENUE ANCHORAGE AK 99507	ELECTRICIAN
AK001.135729	KO Electric, LLC	Registered	P.O. Box 3556 Homer AK 99603	ELECTRICIAN
AK001.125337	Laker Electric, Incorporated	Registered	11901 Industry Way Anchorage AK 99511	ELECTRICIAN
AK001.157968	LiveWire Electric, LLC	Registered	1534 Toyon Way A Kenai AK 99611	ELECTRICIAN
AK001.135718	Meadow Electric	Registered	P.O. Box 2226 Seward AK 99664	ELECTRICIAN
2018-AK-70830	Maritime Electric	Suspended	P.O. Box 212602 Anchorage AK 99521	ELECTRICIAN
2019-AK-73303	Marathon Electric, LLC	Registered	P.O. Box 927 Seward AK 99664	ELECTRICIAN
AK001.147461	Mark IV Enterprises	Registered	951 E. Creekside Drive #9 Wasilla AK 99654	ELECTRICIAN
AK001.007010	MAT-SU MECHANICAL, INC.	Registered	1265 EAST LULLY CIRCLE WASILLA AK 99654	ELECTRICIAN
2019-AK-73046	Mattingsly Electric, LLC	Registered	P.O. Box 781 Putnamburg AK 99833	ELECTRICIAN
AK009.990007	MIDNIGHT SUN ELECTRIC	Registered	267 West Rockwell Avenue SOLDOTNA AK 99669	ELECTRICIAN
AK001.060018	MIRANDA ELECTRIC, INCORPORATED	Registered	P.O. Box 56031 North Pole AK 99705	ELECTRICIAN
AK001.145924	Morse Construction	Registered	7362 West Parks Highway #185 Wasilla AK 99623	ELECTRICIAN
2017-AK-48670	New Hope Apprenticeship Training	Registered	2471 West Tapline Drive Wasilla AK 99654	ELECTRICIAN
AK001.125657	Nordic Electric, LLC	Registered	806 S. Nordic Drive Petersburg AK 99833	ELECTRICIAN
AK001.050016	North Wire, LLC	Registered	1120 E. Huffman Road, Suite 24, Box 695 Anchorage AK 99515	ELECTRICIAN
2017-AK-45947	Peak Offiled Service Company - Bristol Bay Industrial	Registered	5015 Business Park Blvd., Suite 400 Anchorage AK 99503	ELECTRICIAN
AK000.060013	PITCHER ELECTRIC, INC.	Registered	P.O. BOX 87871 WASILLA AK 99687	ELECTRICIAN
AK001.125710	Power & Light, Incorporated	Registered	7721 School Street, Suite 1 Anchorage AK 99518	ELECTRICIAN
AK001.127004	Premier Electric	Registered	P.O. Box 874363 Wasilla AK 99687	ELECTRICIAN
AK001.113407	Prism Design & Construction	Registered	P.O. Box 870165 Wasilla AK 99654	ELECTRICIAN
AK000.013539	Puffin Electric, Inc.	Registered	3808 Ben Walkers Lane Homer AK 99603	ELECTRICIAN
AK000.080232	Ray Electric, Inc.	Registered	P.O. Box 15007 North Pole AK 99705	ELECTRICIAN
2018-AK-70371	Renewable Energy Systems	Registered	1698 Airport Way Fairbanks AK 99701	ELECTRICIAN
AK001.040007	RISHING SUN ELECTRIC SERVICES, LLC	Registered	36794 Elmura Lake Road Chugiak AK 99567	ELECTRICIAN
AK001.113405	Safe-T-Way Electric, Incorporated	Registered	6208 Mackay Street Anchorage AK 99518	ELECTRICIAN
2019-AK-72765	Salmon River Electric	Registered	P.O. Box 118 Gustavus AK 99826	ELECTRICIAN
AK000.050009	SITKA ELECTRIC COMPANY	Registered	1314 SAMMILL CREEK ROAD SITKA AK 99835	ELECTRICIAN
AK001.039387	Sourdough Specialty Contractors	Registered	145 Shady Lane #4 Soldotna AK 99669	ELECTRICIAN
AK001.157697	Spectrum Services	Registered	35867 Driftwater Street Kenai AK 99611	ELECTRICIAN
2017-AK-45938	Stevens Electric	Registered	9630 Muskabell Circle Anchorage AK 99507	ELECTRICIAN
AK001.070051	Steve's Electrical	Registered	2741 Engineers Cliff Road Juneau AK 99801	ELECTRICIAN
2018-AK-70651	SUMNER ELECTRICAL ENTERPRISE, LLC	Registered	801 Hollywood Road Wasilla AK 99654	ELECTRICIAN
AK001.180009	TDC Power Services, LLC	Registered	815 East 2nd Avenue, Suite 200 Anchorage AK 99518	ELECTRICIAN
AK001.010001	TEC PRO, LTD.	Registered	916 Whitney Road Anchorage AK 99501	ELECTRICIAN
AK000.082228	Trell Electric, LLC	Registered	1760 Abbott Road Anchorage AK 99507	ELECTRICIAN
AK001.010508	The Electrician, LLC	Registered	607 Old Steese Highway, Suite B, PMB 407 Fairbanks AK 99701	ELECTRICIAN
AK001.045917	Thomas and Sons Electric	Registered	P.O. Box 955 Craig AK 99521	ELECTRICIAN
AK001.113408	Trident Seafoods Corporation	Registered	P.O. Box 22427 Anchorage AK 99522	ELECTRICIAN
AK001.017688	Trinity Electric, LLC	Registered	861 E. 42nd Avenue, B-14 Anchorage AK 99518	ELECTRICIAN
AK001.017706	T'S Construction, Incorporated	Registered	2383 Cooks Cove Drive Fairbanks AK 99701	ELECTRICIAN
AK000.99469	Wesley Electric	Registered	1607 W. Reliance Rd, Wasilla AK 99652	ELECTRICIAN
AK000.050010	WESTPORT SYSTEM ENGINEERING	Registered	P.O. BOX 30353 DUTCH HARBOR AK 99682	ELECTRICIAN
AK000.050019	WILL CORP	Registered	1465 Bay Road Kodiak AK 99615	ELECTRICIAN
AK001.125665	WOODWARD SEAFOODS, INCORPORATED	Registered	1320 Duane Circle Homer AK 99603	ELECTRICIAN
AK001.050002	WOODWARD ELECTRIC	Registered	P.O. Box 969 Bethel AK 99509	ELECTRICIAN
AK000.030009	WYOMU-KUSKOWMUN DELTA APPRENTICESHIP PROGRAM	Registered	320 Driveway Street, Suite 2 Fairbanks AK 99701	ELECTRICIAN
AK001.081932	Zona Electric	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	ELECTRONIC SYSTEMS TECHNICIAN
AK000.990018	ABC of Alaska, Inc.	Registered	816 Whitney Road ANCHORAGE AK 99501	ELECTRONIC SYSTEMS TECHNICIAN
AK001.010011	TEC PRO, LTD.	Registered	2264 15th Avenue West Seattle WA 98119	REWIND CONSTRUCTOR MECHANIC
AK000.030005	GRAND PROSPECT CORPORATION	Suspended	P.O. BOX 510958 BIG LAKE AK 99652	FLOOR LAYER
AK000.940001	International Union of Painters and Allied Trades Local 1582 IATC	Registered	5821 Arctic Boulevard, Unit B ANCHORAGE AK 99518	FLOOR LAYER
AK001.145318	The Great Alaskan Flooring, Inc.	Registered	2017 Mill Bay Road Kodiak AK 99615	FLOOR LAYER
AK000.990003	ABC of Alaska, Inc.	Registered	3601 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	GLAZIER
AK000.990003	ABC of Alaska, Inc.	Registered	3601 Arctic Boulevard, Unit B ANCHORAGE AK 99518	HEATING & AIR-CONDITIONER INSTALL/SENIOR
AK000.950001	ALASKA SCISE SHEET METAL WORKERS IATC	Registered	1307 E. 25TH AVENUE, Suite 100 ANCHORAGE AK 99518	HEATING & AIR-CONDITIONER INSTALL/SENIOR
AK000.950002	ANCHORAGE ALASKA AREA PIPE TRADES LOCAL 887 IATC	Registered	617 WEST PALMER DRIVE ANCHORAGE AK	

ANCHORAGE SCHOOL DISTRICT'S
LIST OF
ALASKAN FEDERALLY REGISTERED APPRENTICESHIP PROGRAMS

Program Number	Program Name	Program Status	Address	Occupation Title
A000070015	ALASKA JOINT ELECTRICAL APPRENTICESHIP & TRAINING TRUST	Registered	5800 E 1ST ANCHORAGE AK 99518	LINE MAINTANER (Alternate Title: Line Worker)
A000070004	ALASKA OPERATING ENGINEERS/EMPLOYERS TRAINING TRUST	Registered	P.O. BOX 0989 PALMER AK 99645	LINE MAINTANER (Alternate Title: Line Worker)
A0001080380	Alaska Power & Telephone	Registered	P.O. Box 34105 Unalua AK 99603	LINE MAINTANER (Alternate Title: Line Worker)
A000040002	Alaska Village & Telephone	Registered	4831 Eagle Street Anchorage AK 99503	LINE MAINTANER (Alternate Title: Line Worker)
A000080008	CITY & BOROUGH OF SITKA - ELECTRICAL DEPARTMENT	Registered	105 JARVIS STREET SITKA AK 99835	LINE MAINTANER (Alternate Title: Line Worker)
A000158005	CITY OF WRANGELL WRANGELL MUNICIPAL LIGHT & POWER	Registered	P.O. Box 510 Unalaska AK 99850	LINE MAINTANER (Alternate Title: Line Worker)
A0001070010	ICE SERVICES, INCORPORATED	Registered	2805 S STREET, SUITE 2B ANCHORAGE AK 99503	LINE MAINTANER (Alternate Title: Line Worker)
A0001080978	North Slope Borough Power & Light	Registered	P.O. Box 350 Dillingham AK 99576	LINE MAINTANER (Alternate Title: Line Worker)
A0001147462	Niagak Electric & Telephone Cooperative, Inc.	Registered	P.O. Box 350 Dillingham AK 99576	LINE MAINTANER (Alternate Title: Line Worker)
A000070004	ALASKA OPERATING ENGINEERS/EMPLOYERS TRAINING TRUST	Registered	5800 E 1ST ANCHORAGE AK 99518	LUBRICATION SERVICE MATERIAL DISPOSAL TECHNICIAN
A000000006	ALASKA JOINT ELECTRICAL APPRENTICESHIP & TRAINING TRUST	Registered	5800 E 1ST ANCHORAGE AK 99518	MAINTENANCE MECHANIC, TELEPHONE
A000000006	ALASKA WORKS PARTNERSHIP, INC.	Registered	1413 HYPER ST ANCHORAGE AK 99501	MAINTENANCE REPAIRER, BUILDING
A0000158003	Goose Creek Correctional Center	Registered	P.O. Box 87770 Wasilla AK 99687	MAINTENANCE REPAIRER, BUILDING
A0000158003	Hiland Mountain Correctional Center	Registered	9101 Healdsburg Road Eagle River AK 99577	MAINTENANCE REPAIRER, BUILDING
A0000158003	SPRING CREEK CORRECTIONAL CENTER	Registered	P.O. BOX 2109 SEWARD AK 99664	MAINTENANCE REPAIRER, BUILDING
A0001900010	Wilwood Correctional Center	Registered	BLDS 10, CHUGACH AVENUE KENAI AK 99611	MAINTENANCE REPAIRER, BUILDING
A0001900010	TECK ALASKA, INC.	Registered	3105 LAKESHORE DR., BUILDING A, STE 301 ANCHORAGE AK 99518	MECHANIC, INDUSTRIAL TRUCK
A0000550001	Alaska Corporate Training Trust	Registered	8751 King Street Anchorage AK 99515	MILLWRIGHT
A0001900012	TECK ALASKA, INC.	Registered	3105 LAKESHORE DR., BUILDING A, STE 301 ANCHORAGE AK 99518	OPERATING ENGINEER
A0000900003	ABC of Alaska, Inc.	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	OPERATING ENGINEER
A000070004	ALASKA OPERATING ENGINEERS/EMPLOYERS TRAINING TRUST	Registered	P.O. BOX 0989 PALMER AK 99645	OPERATING ENGINEER
A0001147691	Wolverine Supply, Inc.	Registered	5009 E. Blue Lupine Drive Wasilla AK 99654	PAINTER (Construction)
A000090003	ABC of Alaska, Inc.	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	PAINTER (Construction)
A000040001	International Union of Painters and Allied Trades Local 1859 JATC	Registered	5801 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	PAINTER (Construction)
A000090003	ABC of Alaska, Inc.	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	PIPE FITTER (Construction)
A000040002	ANCHORAGE ALASKA AREA PIPE TRADES LOCAL #367 JATC	Registered	617 WEST POTTER DRIVE ANCHORAGE AK 99518	PIPE FITTER (Construction)
A0001510002	Fairbanks Area Plumbers & Pipefitters JATC	Registered	1978 BURGESS AVENUE FAIRBANKS AK 99709	PIPE FITTER (Construction)
A0000650001	JUNEAU PLUMBERS JATC	Registered	1751 ANKA STREET JUNEAU AK 99801	PIPE FITTER (Construction)
A000070007	Alaska Trowel Trades JATC	Registered	825 East 8th Avenue, Suite 10 Anchorage AK 99501	PLASTERER
A000103270	907 Heating and Plumbing	Registered	P.O. Box 220032 Anchorage AK 99522	PLUMBER
A000090003	ABC of Alaska, Inc.	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	PLUMBER
A000125246	Ace Heating, Inc.	Registered	2780 N. Heatherway Circle Wasilla AK 99554	PLUMBER
A000103507	AI Fish Plumbing, LLC	Registered	11805 Gregory Road Anchorage AK 99516	PLUMBER
A000128096	Alaska Clearwater Mechanical, LLC	Registered	P.O. Box 709 Willow AK 99688	PLUMBER
A000113542	Alaska Native Tribal Health Consortium, Division of Environmental Health & Engineering	Registered	4500 Diplomacy Drive, Suite 454 Anchorage AK 99508	PLUMBER
A0001030011	ALASKA PLUMBING & HEATING	Registered	P.O. Box 210240 Alaska Bay AK 99821	PLUMBER
A0001103393	All American Plumbing & Heating	Registered	9509 Antler Way Juneau AK 99801	PLUMBER
A0001135008	All-Star Plumbing & Heating, LLC	Registered	11332 Bearpaw Street Anchorage AK 99516	PLUMBER
A0001070007	ALWAYS ON CALL MOUNTAIN MECHANICAL CORPORATION	Registered	8427 MENTRA STREET ANCHORAGE AK 99518	PLUMBER
A000157999	Amersso, Inc.	Registered	6643 Bratton Drive Anchorage AK 99507	PLUMBER
A000040002	ANCHORAGE ALASKA AREA PIPE TRADES LOCAL #367 JATC	Registered	617 WEST POTTER DRIVE ANCHORAGE AK 99518	PLUMBER
A000070016	ANCHORAGE PLUMBING & HEATING, INC.	Registered	7640 King Street Anchorage AK 99518	PLUMBER
A0001030015	APEX PLUMBING & HEATING SERVICES, LLC	Registered	1300 E. Jessica Ann Street Sutton AK 99674	PLUMBER
A0000681112	Arctic Chain Plumbing & Heating, Inc.	Registered	1200 East 76th Avenue, Unit 1220 Anchorage AK 99518	PLUMBER
2019-AK-72300	Arctic Plumbing & Heating, LLC	Registered	2125 Richardson Highway, Suite #2 North Pole AK 99705	PLUMBER
A000145922	Bledley Mechanical Company	Registered	148 Hillcrest Avenue, #2 Soldotna AK 99669	PLUMBER
A000145921	Bolterman Plumbing & Heating, Inc.	Registered	6800 Lonsome Drive Palmer AK 99645	PLUMBER
A0001040013	BOWMAN MECHANICAL CONTRACTORS, INC.	Registered	11701 Troy Drive Anchorage AK 99515	PLUMBER
A0001125712	Central Mechanical, Incorporated	Registered	311 N. Sika Street Anchorage AK 99501	PLUMBER
A000092007	Central Plumbing and Heating, Inc.	Registered	2317 Raspberry Road Anchorage AK 99502	PLUMBER
A0001135717	D.H. Plumbing & Heating, Incorporated	Suspended	7741 King Street Anchorage AK 99518	PLUMBER
A0001267000	Dalisco Plumbing	Registered	64525 PITZMAN AVE Homer AK 99603	PLUMBER
A0001147690	Dawson Construction, Incorporated	Registered	4220 Cambria Drive West Ketchikan AK 99901	PLUMBER
A0001870004	Discount Mechanical, LLC	Registered	995 RILEY COURT FAIRBANKS AK 99701	PLUMBER
A0001167002	DRINK MECHANICAL, LLC	Registered	P.O. Box 233694 Anchorage AK 99523	PLUMBER
A0001080585	Eggs Plumbing & Heating, LLC	Registered	1208 Lakeshore Drive Homer AK 99603	PLUMBER
A0001040029	ENCORE MECHANICAL, INC.	Registered	P.O. BOX 3788 PALMER AK 99645	PLUMBER
A0001135726	Extreme Heating & Air, Incorporated	Registered	16805 Farm Avenue Eagle River AK 99577	PLUMBER
A0001510002	Fairbanks Area Plumbers & Pipefitters JATC	Registered	1978 BURGESS AVENUE FAIRBANKS AK 99709	PLUMBER
A000145926	Fedor's Plumbing & Heating, LLC	Registered	5902 Cordova Street Anchorage AK 99518	PLUMBER
A000115892	Funk Services	Registered	P.O. Box 61337 Fairbanks AK 99706	PLUMBER
A000115249	Glicker Point Services	Registered	P.O. Box 61337 Fairbanks AK 99706	PLUMBER
A000115932	H and M Plumbing & Heating, Inc.	Registered	P.O. Box 222225 Anchorage AK 99522	PLUMBER
A000090007	HARDROCK PLUMBING AND HEATING, LLC	Registered	4740 E. PATRIC DRIVE WASILLA AK 99654	PLUMBER
A0001030004	HEATCO, LLC	Registered	17143 N. EAGLE RIVER LOOP ROAD EAGLE RIVER AK 99577	PLUMBER
2019-AK-72458	Homer Plumbing and Heating	Registered	581 Mountain View Drive Homer AK 99603	PLUMBER

ANCHORAGE SCHOOL DISTRICT'S
LIST OF
ALASKAN FEDERALLY REGISTERED APPRENTICESHIP PROGRAMS

Program Number	Program Name	Program Status	Address	Occupation Title
A000158005	Hunter Mechanical International Corporation	Registered	137 East 4th Avenue, Suite 2 Anchorage AK 99501	PLUMBER
A000170010	ICE SERVICES, INCORPORATED	Registered	2061 C STREET, SUITE 20 ANCHORAGE AK 99503	PLUMBER
A0001188010	ISV Start Plumbing and Heating	Registered	8382a Garrett Street Juneau AK 99801	PLUMBER
A0001188402	Intelligent Design, LLC	Registered	13741 Timberlane Drive Anchorage AK 99515	PLUMBER
A00018427000	IGLA Enterprises dba Ruston Plumbing & Heating	Registered	HC 80 Box 8182 Talkeetna AK 99676	PLUMBER
A0001081636	IGH Plumbing & Heating, Incorporated	Registered	P.O. Box 1385 Palmer AK 99645	PLUMBER
A0001469772	John White's Plumbing & Heating	Registered	5327 Kenai Spur Highway Kenai AK 99611	PLUMBER
A000092650	John's Heating Service, Inc.	Registered	1311 Mill Bay Road Kodiak AK 96135	PLUMBER
A0000660001	JOURNEMAN PLUMBING & HEATING, INC.	Registered	51315 SEA QUEST DRIVE KENAI AK 99611	PLUMBER
A0000660002	JUNEAU PLUMBERS JATC	Registered	1751 ANKA STREET JUNEAU AK 99801	PLUMBER
A000117698	Kiwi Mechanical	Registered	2647 S. Colton Loop Kodiak AK 96110	PLUMBER
A0001050012	KNK PLUMBING & HEATING	Registered	Box 2132 Cordova AK 99574	PLUMBER
A0000660017	LARRY'S PLUMBING & HEATING	Registered	4915 W. 94TH AVENUE ANCHORAGE AK 99502	PLUMBER
A000147787	Larry's Quality Heating & Plumbing, Inc.	Registered	P.O. BOX 4148 KODIAK AK 96135	PLUMBER
A000089284	Lewis Mechanical, Inc.	Registered	2531 Barrett Avenue Juneau AK 99801	PLUMBER
A000052011	M&J PLUMBING & HEATING, INC.	Registered	13240 View Heights Way Anchorage AK 99516	PLUMBER
A000070010	MAT-SU MECHANICAL, INC.	Registered	34360 Business Park Frontage Road SOLDOTNA AK 99669	PLUMBER
A000146888	Monkey Wrench Mechanical	Registered	1265 EAST DOLLY CIRCLE WASILLA AK 99654	PLUMBER
A000113541	Moore Heating & Air Conditioning	Registered	P.O. Box 73441 Fairbanks AK 99707	PLUMBER
A000114890	Mr. Roeder Plumbing of Fairbanks	Registered	1801 East Dowling Road Anchorage AK 99507	PLUMBER
A0001091696	North Country Stores, Incorporated	Registered	875 OH Richardson Highway FAIRBANKS AK 99701	PLUMBER
A000145928	Pacific Rim Mechanical, LLC	Registered	2207 E. Tudor Road #40 Anchorage AK 99507	PLUMBER
A0001070004	PARAGON PLUMBING & HEATING, INCORPORATED	Registered	P.O. Box 669 Haines AK 99827	PLUMBER
A000000005	PARHURST MECHANICAL	Registered	3400 MACARTHUR STREET FAIRBANKS AK 99701	PLUMBER
A0001050006	PARTUSCH PLUMBING & HEATING	Registered	P.O. BOX 1806 Palmer AK 99645	PLUMBER
A0001060010	PLEASANT'S PLUMBING & HEATING	Registered	1801 SCHOON STREET ANCHORAGE AK 99518	PLUMBER
A0001167705	Pollard Construction	Suspended	P.O. BOX 33051 JUNEAU AK 99803	PLUMBER
A000092200	Porwande Plumbing and Heating, Inc.	Registered	P.O. Box 21811 Juneau AK 99803	PLUMBER
A0001103394	Premier Mechanical, LLC	Registered	1500 Alaska Way Fairbanks AK 99709	PLUMBER
A0001167700	Red Hot Mechanical, Incorporated	Registered	2011 Millbay Road, #2 Kodiak AK 96135	PLUMBER
A0001177707	Red Solid Plumbing & Heating	Registered	11723 Old Glen Highway, Suite 107 Eagle River AK 99577	PLUMBER
A000146735	River City Plumbing & Heating	Registered	865 6th Avenue Fairbanks AK 99701	PLUMBER
A00014652	S.E. Plumbing, Incorporated	Registered	P.O. Box 874418 Wasilla AK 99687	PLUMBER
A000168008	Scott's Heating & Plumbing Services, Inc.	Registered	86 Garland Court Ketchikan AK 99901	PLUMBER
A000089237	STATEWIDE MECHANICAL, LLC	Registered	P.O. Box 3132 Kodiak AK 96135	PLUMBER
A0001040017	Sundance Construction Company, Inc.	Registered	22750 MC MANUS DRIVE CHUGIAK AK 99567	PLUMBER
A000089132	Superior Mechanical, Inc.	Registered	P.O. Box 561 Kodiak AK 96135	PLUMBER
A000092651	Tauman Mechanical Plumbing & Heating, LLC	Registered	P.O. Box 82409 Fairbanks AK 99708	PLUMBER
A0001070021	VALLEY MECHANICAL CONTRACTING, INCORPORATED	Registered	730 W. 88th Avenue Anchorage AK 99515	PLUMBER
A0001125707	Watersworks Plumbing & Heating	Registered	6673 E. TIDAL DRIVE WASILLA AK 99654	PLUMBER
A00014673100	Wolf Pack Mechanical, LLC	Registered	P.O. Box 1974 Soldotna AK 99669	PLUMBER
A000030009	YUKON-KUSKOKWIM DELTA APPRENTICESHIP PROGRAM	Registered	P.O. Box 862 Bethel AK 99559	PLUMBER
A000097654	Ketchikan Indian Community	Registered	615 Steadman Street Ketchikan AK 99901	RESIDENTIAL CARPENTER
A000113337	Nicholas Construction, LLC	Registered	P.O. Box 559 Ward Cove AK 99901	RESIDENTIAL CARPENTER
A000135904	Yukon River Towing, LLC	Registered	P.O. Box 128 Emmonak AK 99581	RESIDENTIAL WIREMAN
A000030004	A & K ELECTRIC	Registered	1545 CROSSON AVENUE FAIRBANKS AK 99701	RESIDENTIAL WIREMAN
A0000700015	ALASKA JOINT ELECTRICAL APPRENTICESHIP & TRAINING TRUST	Registered	5800 B ST ANCHORAGE AK 99518	RESIDENTIAL WIREMAN
A000145927	Big M Electric, LLC	Registered	P.O. Box 84044 Fairbanks AK 99708	RESIDENTIAL WIREMAN
A000109513	Bristol Bay Housing Authority	Registered	P.O. Box 50 Dillingham AK 99576	RESIDENTIAL WIREMAN
A000135907	Dependable Services	Registered	P.O. Box 4357 Palmer AK 99645	RESIDENTIAL WIREMAN
A000109511	Elegant Homes	Registered	P.O. Box 875769 Wasilla AK 99687	RESIDENTIAL WIREMAN
A0001146733	Fony Construction and Electric, LLC	Registered	2155 North Blinnmore Court Wasilla AK 99654	RESIDENTIAL WIREMAN
A000046014	Garner Electric Company, LLC	Registered	4183 Aspen Avenue Juneau AK 99801	RESIDENTIAL WIREMAN
A000117692	INTERIOR REGIONAL HOUSING AUTHORITY	Registered	828 27TH AVENUE FAIRBANKS AK 99701	RESIDENTIAL WIREMAN
A0001469570	Marty Wise Electrical	Registered	1634 Sterling Highway Homer AK 99603	RESIDENTIAL WIREMAN
A0001060007	New Hope Apprenticeship Training	Registered	2471 West Topline Drive Wasilla AK 99654	RESIDENTIAL WIREMAN
A0000660013	Pacific North Construction	Registered	P.O. Box 877965 Wasilla AK 99687	RESIDENTIAL WIREMAN
A0001040007	PITCHER ELECTRIC, INC.	Registered	P.O. Box 877871 Wasilla AK 99687	RESIDENTIAL WIREMAN
A000109400	RISEING SON ELECTRIC SERVICES, LLC	Registered	36784 Elmira Lake Road Chugik AK 99567	RESIDENTIAL WIREMAN
A0000510001	Solid Ground Electric	Registered	13811 Savage Drive Eagle River AK 99577	RESIDENTIAL WIREMAN
A0000910009	Alaska Carpenter Training Trust	Registered	1751 ANKA STREET ANCHORAGE AK 99518	SCAFFOLD DRECTOR
A0000520001	ABC of Alaska, Inc.	Registered	301 Arctic Slope Avenue, Suite 100 ANCHORAGE AK 99518	SHEET METAL WORKER
A0001870004	ALASKA 50/50 SHEET METAL WORKERS JATC	Registered	1307 E. 75TH AVENUE #4 ANCHORAGE AK 99518	SHEET METAL WORKER
A0001050001	DRINK MECHANICAL, INC.	Registered	955 RILEY COURT FAIRBANKS AK 99701	SHEET METAL WORKER
A000109587	FAIRBANKS AREA SHEET METAL WORKERS JATC	Registered	1260 ANADORA DRIVE FAIRBANKS AK 99709	SHEET METAL WORKER
A000109587	Valley Mechanical Contractors, Inc.	Registered	6573 E. Tidal Drive Wasilla AK 99654	SHEET METAL WORKER

ANCHORAGE SCHOOL DISTRICT'S
LIST OF
ALASKAN FEDERALLY REGISTERED APPRENTICESHIP PROGRAMS

Program Number	Program Name	Program Status	Address	Occupation Title
A000950003	ABC of Alaska, Inc.	Registered	807 Arctic Super Avenue, Suite 100 ANCHORAGE AK 99518	SPRINKLER FITTER (Existing Title: Pipe Fitter)
A000400002	ANCHORAGE ALASKA AREA PIPE TRADERS LOCAL #367 JATC	Registered	617 WEST POTTER DRIVE ANCHORAGE AK 99518	SPRINKLER FITTER (Existing Title: Pipe Fitter)
A000151002	Griffiths Area Plumbers & Pipefitters JATC	Registered	1978 BURGESS AVENUE FARMING AK 99709	SPRINKLER FITTER (Existing Title: Pipe Fitter)
A000070016	ALASKA BROWNDRIERS JATC	Registered	8141 SCHOOL STREET ANCHORAGE AK 99518	STRUCTURAL STEEL WORKER (Alternative Title: Ironworker or Structural Ironworker)
A000000007	ALASKA TEAMSTER-EMPLOYERS SERVICE TRAINING TRUST	Registered	520 East 34th Avenue, Suite 201 ANCHORAGE AK 99503	SURVEYOR ASSISTANT INSTRUMENT
A000840001	ALASKA JOINT ELECTRICAL APPRENTICESHIP & TRAINING TRUST	Registered	5800 B STREET ANCHORAGE AK 99518	TREET TRIMMER (Line Clearance)
A000000007	ALASKA TEAMSTER-EMPLOYERS SERVICE TRAINING TRUST	Registered	520 East 34th Avenue, Suite 201 ANCHORAGE AK 99503	TRUCK DRIVER, HEAVY
2017-NH-6881D	River Valley Workforce Institute, Inc.	Registered	375 Mount Support Road Lebanon NH 03766	WELDER, COMBINATION
A0001910012	TECK ALASKA, INC.	Registered	3105 LAKESHORE DR., BUILDING A, STE 101 ANCHORAGE AK 99518	WELDER, COMBINATION

Multiple-employer apprenticeship sponsors.

**ANCHORAGE SCHOOL DISTRICT
APPRENTICE UTILIZATION FORM**

Project Name: _____

Solicitation Number: _____

Contractor: _____

Prime Contractors

1. Please list crafts/trades that will be used to complete this project and have Alaskan Federally Registered Apprenticeship programs.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. Please list the apprentices and corresponding apprenticeship programs that will be used by the prime contractor to complete this project. If more space is needed, please attach supplemental sheets.

APPRENTICE'S NAME

APPRENTICESHIP PROGRAM

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

3. Please list the subcontractors that will be used on the project.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

4. Please list the apprentices and corresponding apprenticeship programs that will be used by the subcontractors to complete this project. If more space is needed, please attach supplemental sheets.

APPRENTICE'S NAME	APPRENTICESHIP PROGRAM
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

ANCHORAGE SCHOOL DISTRICT
APPRENTICESHIP UTILIZATION PROGRAM CALCULATIONS FORM

[illegible]

PENALTY TABLE**\$100,001 TO \$500,000**

1ST NON-COMPLIANCE (30-DAY)	\$500.00	
2ND CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$750.00	
3RD 30-DAY CONSECUTIVE NON-COMPLIANCE	\$1,000.00	
4TH CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$1,000.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING
FURTHER CONSECUTIVE NON-COMPLIANCE EXCEEDING 4TH NON-COMPLIANCE (30-DAY)	\$1,000.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING

\$500,001 TO \$1,000,000

1ST NON-COMPLIANCE (30-DAY)	\$750.00	
2ND CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$1,500.00	
3RD CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$2,500.00	
4TH CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$5,000.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING
FURTHER CONSECUTIVE NON-COMPLIANCE EXCEEDING 4TH NON-COMPLIANCE (30-DAY)	\$5,000.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING

\$1,000,001 TO \$3,000,000

1ST NON-COMPLIANCE (30-DAY)	\$1,000.00	
2ND CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$2,500.00	
3RD CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$5,000.00	
4TH CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$7,500.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING
FURTHER CONSECUTIVE NON-COMPLIANCE EXCEEDING 4TH NON-COMPLIANCE (30-DAY)	\$7,500.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING

\$3,000,001 TO \$5,000,000

1ST NON-COMPLIANCE (30-DAY)	\$1,500.00	
2ND CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$3,000.00	
3RD CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$7,500.00	
4TH CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$10,000.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING
FURTHER CONSECUTIVE NON-COMPLIANCE EXCEEDING 4TH NON-COMPLIANCE (30-DAY)	\$10,000.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING

OVER \$5,000,000

1ST NON-COMPLIANCE (30-DAY)	\$2,500.00	
2ND CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$5,000.00	
3RD CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$8,000.00	
4TH CONSECUTIVE NON-COMPLIANCE (30-DAY)	\$10,000.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING
FURTHER CONSECUTIVE NON-COMPLIANCE EXCEEDING 4TH NON-COMPLIANCE (30-DAY)	\$10,000.00	AND FINDING OF NON-RESPONSIBILITY IN FUTURE BIDDING



ANCHORAGE SCHOOL DISTRICT
Pre-Job Conference Form
Student Community
Workforce Agreement

Please fill out the following pages. Be as thorough as possible. Please contact the SCWA Administrator with questions.

Contractor information					
General Contractor Name					
Pre-Job Meeting Date		Time:			
Project Name/Contract#					
Contract Dollar Amount		Intent#			
Office Contact:		Phone:		Email:	
Superintendent:		Phone:		Email:	
Safety Representative		Phone:		Email:	
Scope of Work					
(Describe the scope of work to be Performed)					
General Contractor Self Performed Work:					
Will you be subcontracting to additional sub-contractors? If yes, list sub-contractors and work description:				Yes ☐ No ☐	



ANCHORAGE SCHOOL DISTRICT
Pre-Job Conference Form
Student Community
Workforce Agreement

Sub-Contractor Company Name	
Work Description	
Sub-Contractor Company Name	
Work Description	
Sub-Contractor Company Name	
Sub-Contractor Company Name	
Work Description	
Sub-Contractor Company Name	
Work Description	

Project Craft Workforce Estimates			
Craft	Peak	Average	Apprentices
Asbestos Workers			
Boiler Makers			
Brick/Stone/Marble/Tile Setters/Terrazzo			
Carpenters			
Carpet, Lino & Soft Tile Layers			
Cement			
Masons			
Drywall Hanger/Metal Stud Framer			
Drywall Finishers			
Electrical Workers			
Elevator Constructors			
Glaziers			
Heat and Frost Insulators			
Iron Workers (Structural/Rebar)			
Iron Workers (Ornamental/Architectural)			
Laborers			
Milwrights			
Operating Engineers			
Painters			
Pile Drivers/Diver			
Plumbers & Pipefitters			
Plasterers/Fire Proofers			
Roofers			
Sheet Metal Workers			
Sign Makers/Painters			
Sprinkler Fitters			
Teamsters			

Page 4 of 5

[illegible]

Yar, May 24, 1956

Page 5 of 5

END OF SECTION

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

REFERENCE:

The General Conditions shall be GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, ANCHORAGE SCHOOL DISTRICT, ANCHORAGE, ALASKA, bound herein.

SUPPLEMENTS:

Supplements may modify, change, delete, or add to these General Conditions. Where any article of the General Conditions is modified or any paragraph deleted, or any subparagraph or clause thereof is modified, or deleted by supplements, the unaltered provisions of such article, paragraph, subparagraph or clause shall remain in effect. The General Conditions and the Supplementary General Conditions are applicable to all of the Work under this Contract and shall apply to the Contractor and all Subcontractors, Sub-subcontractors, and Material Suppliers and Vendors.

TABLE OF ARTICLES

ARTICLE	PAGE
1. THE CONTRACT DOCUMENTS	00700-3
2. ARCHITECT	00700-7
3. OWNER	00700-10
4. CONTRACTOR	00700-14
5. SUBCONTRACTORS	00700-25
6. WORK BY OWNER OR BY SEPARATE CONTRACTORS	00700-28
7. MISCELLANEOUS PROVISIONS.....	00700-30
8. TIME	00700-34
9. PAYMENTS AND COMPLETION	00700-38
10. PROTECTION OF PERSONS AND PROPERTY	00700-46
11. INSURANCE.....	00700-48
12. CHANGES IN THE WORK.....	00700-52
13. UNCOVERING AND CORRECTION OF THE WORK.....	00700-60
14. TERMINATION OF THE CONTRACT.....	00700-62

ARTICLE 1

CONTRACT DOCUMENTS

1.1 DEFINITIONS

1.1.1 The following terms as used in this Contract are defined as follows:

"Architect / Engineer or A/E": The design consultant of the Owner.

"Construction Manager": Supervises the construction phase of construction projects for the Anchorage School District Facilities Department.

"Contract": The Agreement between Owner and Contractor and the referenced Contract Documents stated therein.

"Contractor": The person, firm, or corporation contractually responsible to the Owner to provide the services called for by this Contract. Such entity may also be referred to as Managing General Contractor, General Contractor, or Prime Contractor.

"Days": Calendar days unless otherwise noted.

"Direct Cost": A direct cost is any cost that can be identified specifically with a particular final cost objective, i.e., with this contract, or an item of extra work, or change order under the contract.

"Senior Director of Capital Planning & Construction": Manages the Operations of the Anchorage School District Capital Planning & Construction Department.

"Furnish": Supply and deliver to the project including the cost to supply and deliver.

"Indirect Cost": An indirect cost, collectively called overhead, is any cost not directly identified with a single, final cost objective, but identified with two or more final cost objectives or an intermediate cost objective.

"Install": Build into the Work, ready to use in a complete, finished, and operable system, including the cost to install.

"Owner": The Anchorage School District, its Anchorage School Board of Education, the Superintendent of the Anchorage School District, and its employees.

"Project Manager": The person designated by the Senior Director of Capital Planning & Construction as the Owner's representative for this Contract, responsible for the day-to-day coordination between the Owner and the Contractor.

"Provide": Furnish and install for a complete, finished, and operable system.

"Reasonable Cost": A cost is reasonable if, in its nature or amount, it does not exceed that which would be incurred in a competitive market.

"Shop Drawings, Setting Drawings, Manufacturer's Printed Information and Submittal (collectively known as "Submittals")": The Contractor's information consisting of drawings, catalogs, illustrations, calculations, and other data delivered to the Owner for the purpose of assuring the Owner, prior to execution of that part of the Work, that the prescriptive element, component, subsystem, or service to be provided generally conforms with the

Contract. The Contractor is responsible to the Owner for the accuracy and completeness of the Submittals.

"Subcontractor": A person, firm, or entity who has a direct contract with the Contractor to perform any of the work.

"Work" or "Project": The finished product required by the Contract Documents together with the means and methods as determined, by the Contractor, to achieve the finished product.

1.1.2 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Owner-Contractor Agreement, the Drawings, the Project Manual, and all Addenda issued prior to and all Modifications issued after execution of the Contract. A Modification is (1) a directive for change in the work pursuant to Section 12.1.2 or (2) a change order pursuant to Section 12.2.6.

1.1.3 THE CONTRACT

The Contract is the sum of all the Contract Documents. This Contract represents the entire and integrated agreement between the Owner and the Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification as defined in Subparagraph 1.1.2.

1.1.4 THE WORK

The Work comprises the completed construction required by the Contract Documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

1.1.5 THE PROJECT

The Project is the total construction, of which the Work performed under the Contract documents may be the whole or a part.

1.1.6 SCHOOL BOARD

Board of Education of the Anchorage School District, Anchorage, Alaska.

1.1.7 BIDDER

Any individual, firm, partnership, corporation or combination thereof, formally submitting a bid for the work contemplated, or any portion thereof, acting directly or through an authorized representative.

1.1.8 MUNICIPALITY

Municipality of Anchorage, Alaska.

1.1.9 PROPOSAL

1.1.9.1 BID PROPOSAL

The written proposal of the Bidder on the form furnished by the Owner for the Work contemplated, and which is required to be signed by the Bidder.

1.1.9.2 REQUEST FOR PROPOSAL (RFP)

The offer of the Contractor submitted on the prescribed form from the Project Manager to perform the work and furnish labor, material and all other costs at the prices quoted by the Contractor for proposed changes in the work.

1.1.10 SPECIFICATIONS

The products, directions, requirements, explanations, terms and provisions pertaining to the various features of the Work to be done and the manner and method of performance. The specifications include such directions, requirements and explanations as appear on the drawings and as may otherwise be defined.

1.1.11 PROJECT SITE

The geographic location of the Project as indicated on the Drawings.

1.1.12 PROJECT MANUAL

The Project Manual includes the Bidding and Contract Requirements, Project Schedule Milestone Dates, General and Supplementary Conditions, Wage Rates, the Specifications and project drawings incorporated by reference.

1.1.13 REQUEST FOR INFORMATION

Request for Information. Written interpretations necessary for the proper execution or progress of the Work, in the form of drawings or otherwise, will be issued with reasonable promptness by the Project Manager. The Contractor may make written request to the Project Manager for such interpretations. Such interpretations will be consistent with and reasonably inferable from the Contract Documents.

1.2 EXECUTION, CORRELATION AND INTENT

1.2.1 The Contract shall be signed in doubles by the Owner and Contractor, each of which shall be deemed an original, but all or which shall constitute one and the same instrument.

1.2.2 By executing the Contract, the Contractor represents that he has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents.

1.2.3 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. Except as otherwise specifically provided, the Contractor shall furnish all labor, tools, implements, machinery, supplies, materials, and incidentals, and shall do all things necessary to perform and to complete the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonable inferable therefrom as being necessary to produce the intended results. Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings unless otherwise specifically defined herein.

1.2.4 The organization of the Specifications into division, sections and articles, and the arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by a trade.

1.2.5 If any portion of the Contract Documents shall be in conflict with any other portion, the

various documents comprising the Contract Documents shall govern in the following order of precedence:

- 1.2.5.1 The Owner-Contractor Agreement;
- 1.2.5.2 Modifications;
- 1.2.5.3 Addenda;
- 1.2.5.4 Section 00800 - Supplementary General Conditions to the Contract for Construction;
- 1.2.5.5 Section 00700 - General Conditions of the Contract for Construction;
- 1.2.5.6 Specifications - embodying all other sections in the Project Manual;
- 1.2.5.7 Drawings: as between schedules and information given on Drawings, the schedules shall govern; as between written dimensions given on Drawings and scaled measurements, the written dimensions shall govern; as between large-scale Drawings and small-scale Drawings, the larger scale shall govern;
- 1.2.5.8 Performance Bond, Labor and Material Payment Bond;
- 1.2.5.9 Bid/Proposal Form;
- 1.2.5.10 Instructions to Bidders/Proposers;
- 1.2.5.11 Invitation to Bid/Request for Proposal;

All such conflicts shall be reported, in writing, to the Project Manager. Schedules, lists, indexes, tables, inventories, written instruction, written descriptions, summaries, statements, classifications, specifications, written selections, or written designations, although appearing on the Drawings, are deemed to be and are "Specifications" as defined by this Subparagraph 1.2.5. The principles as set forth herein shall not alter the provisions of Subparagraph 1.2.3.

In the event there is a conflict between or among any provisions within one of the component parts of the Contract Documents, the higher standard or more stringent requirement shall govern.

- 1.2.6 The Contractor agrees that nothing contained in the Contract Documents or any contract between the Owner and the Architect shall create any contractual relationship between the Architect and the Contractor, any Subcontractors, Sub-subcontractors, Material Suppliers or Vendors. The Contractor acknowledges and agrees that this Contract is not intended to create, nor shall any provision be interpreted as creating, any contractual relationship between the Owner or Contractor or any third parties.
- 1.2.7 Any material or operation specified by reference to published specifications of a manufacturer, a society, an association, a code, or other published standard, shall comply with requirements of the listed document and project specifications; or as between referenced documents, the more stringent code or performance requirements shall govern. The Contractor, if requested, shall furnish an affidavit from the manufacturer certifying that the materials or products delivered to the Project meet the requirement specified.

1.3 OWNERSHIP AND USE OF DOCUMENTS

- 1.3.1 All Drawings, Specifications and copies thereof furnished by the Owner are and shall remain its property. They are to be used only with respect to this Project and are not to be used on any other project.
- 1.3.2 The Owner will provide conformed drawings and specifications incorporating Addenda items into the Contract Documents. A reasonable number of reproduced sets will be provided to the contractor without charge.

END OF ARTICLE 1

ARTICLE 2

ARCHITECT

2.1 DEFINITION

- 2.1.1 The Architect is the person or organization lawfully licensed to practice architecture, or an entity lawfully practicing architecture identified as such in the Owner-Contractor Agreement, and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Architect means the Architect and his engineers, whether under contract or within his own organization, or his authorized representative.
- 2.1.2 The term Architect is interchangeable with the term Project Architect, and is exclusive of the services of the Asbestos Abatement Architect.
- 2.1.3 The Asbestos Abatement Architect is not a part of the Architect's organization.

2.2 SERVICES OF THE ARCHITECT

- 2.2.1 The Architect will provide certain services as hereinafter described.
- 2.2.2 Should errors, omissions, or conflicts in the Drawings, Specifications, or other Contract Documents provided by the Architect be discovered, the Architect will prepare such amendments or supplementary documents and provide consultation as may be required.
- 2.2.3 The Architect and his consulting engineers (including but not limited to the structural, mechanical, and electrical disciplines) will visit the site at intervals appropriate to the stage of construction to familiarize themselves generally with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. Unless otherwise provided in the Owner-Architect Agreement, the Architect and his consulting engineers will not be required to make exhaustive or continuous on-site inspection or observations to check the quality or quantity of the Work, but they shall make as many on-site inspections and observations as may reasonably be required to fulfill their obligations to the Owner. On the basis of such on-site observation, the Architect and his consulting engineers shall endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor.
- 2.2.4 The Architect will render written field reports to the Project Manager in the form required by the Project Manager relating to the periodic visits and inspections of the Project required by Subparagraph 2.2.3.
- 2.2.5 The Architect will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and he will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Architect will not be responsible for or have control or charge over the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the work.
- 2.2.6 The Architect shall at all times have access to the Work wherever it is in preparation or progress. The Contractor shall provide safe facilities for such access so the Architect may perform his functions under the Contract Documents.
- 2.2.7 The Project Manager will consult with the Architect regarding the Contractor's Applications for Payment and both shall sign the Applications for Payment as provided in Subparagraph

9.4.

- 2.2.8 As required, the Architect will render to the Project Manager interpretations necessary for the proper execution or progress of the Work, with reasonable promptness and in accordance with any time limit agreed upon.
- 2.2.9 All communications, correspondence, submittals, and documents exchanged between the Architect and the Contractor in connection with the Project shall be through or in the manner prescribed by the Project Manager.
- 2.2.10 All interpretations and decisions of the Architect will be consistent with the intent of and reasonably inferable from the Contract Documents.
- 2.2.11 The Architect's decision in matters relating to artistic effect will be final if consistent with the intent of the Contract Documents and approved by the Project Manager.
- 2.2.12 If the Architect observes any Work that does not conform to the Contract Documents, the Architect shall promptly report in writing this observation to the Project Manager. The Architect will prepare and submit to the Project Manager punchlists of the Contractor's Work which is not in conformance with the Contract Documents. The Project Manager will transmit such punchlists to the Contractor.
- 2.2.13 The Architect will review and take appropriate action upon Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for conformance with the design concept of the Work and for general compliance with the Contract Documents. Such action shall be taken in no more than twenty-one (21) days of receipt unless otherwise authorized by the Project Manager.
- 2.2.14 The Project Manager will establish with the Architect procedures to be followed for review and processing of all Shop Drawings, catalog submittals, project reports, test reports, maintenance manuals, and other necessary documentation, as well as requests for changes and applications for extensions of time.
- 2.2.15 The Architect will prepare technical documentation for Change Orders when directed by the Project Manager.
- 2.2.16 The Architect and the Project Manager will conduct inspections to determine the dates of Substantial Completion and Final Completion, and will issue a final Certificate of Substantial Completion.
- 2.2.17 Unless otherwise provided in the Contract Documents, or the Owner-Architect Agreement, the Architect will prepare a set of reproducible record prints of Drawings showing significant changes in the Work made during the construction process, based on neatly and clearly marked-up prints, Drawings, and other data furnished by the Contractor.
- 2.2.18 In case of the termination of the employment of the Architect, the Owner may appoint an architect against whom the Contractor makes no reasonable objection whose status under the Contract Documents shall be that of the former architect, or the Owner may have the Project Manager assume all of the services of the Architect thereafter.

2.3 ASBESTOS ABATEMENT ARCHITECT

- 2.3.1 Solely with regards to asbestos abatement, the Asbestos Abatement Architect shall be afforded the same rights and authority as hereinbefore allowed the Architect.

2.3.2 The Architect is not a part of the Asbestos Abatement Architect's organization.

2.4 SEPARATE ARCHITECT, ENGINEER OR ARCHITECT/ENGINEER

2.4.1 Unless otherwise noted in the Contract Documents, the Separate Architect, Engineer or Architect/Engineer, as defined by the Supplementary General Conditions, Document 00800, shall be afforded the same rights and authority as hereinbefore allowed the Architect.

2.4.2 The Contract Documents, when applicable, shall define the portion of the Work relating to the services of the Separate Architect, Engineer or Architect/Engineer.

END OF ARTICLE 2

ARTICLE 3

OWNER

3.1 DEFINITIONS

- 3.1.1 The Owner is the Anchorage School District acting through its legally constituted officials, officers, employees, or agents and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Owner means the Owner or its authorized representative or agent.
- 3.1.2 The Asbestos Abatement Consultant is under separate Agreement with the Owner. Communications protocol between the Contractor and the Asbestos Abatement Architect shall be as established by the Project Manager.

3.2 PROJECT MANAGER

- 3.2.1 The Project Manager will be the Owner's representative and agent to the Contractor with respect to the Project during construction and until the issuance of the final Certificate for Payment. The term Project Manager is referred to throughout the Contract Documents as if singular in number and masculine in gender. The Owner's communications with the Contractor and the Architect will be through the Project Manager, who will have full authority to act on behalf of the Owner with regard to all aspects of the Project except that the Owner must approve all Change Orders and payments to the Contractor. The Project Manager's actions with regard to this project will be as an agent and representative of the Owner.
- 3.2.2 The Project Manager is not authorized to revoke, alter, change, relax, or release any requirements of the Contract, nor to approve or accept any portion of the Work not executed in accordance with, nor to issue instructions contrary to, the Contract Documents.
- 3.2.3 Nothing contained within the Contract Documents shall create any contractual relationship between the Project Manager and the Contractor.

3.3 INFORMATION, SERVICES AND RIGHTS OF THE OWNER

- 3.3.1 The Owner, through the Project Manager, will provide administration of the Contract as hereinafter described.
- 3.3.2 The Owner and the Project Manager shall at all times have access to the Work whenever it is in preparation or progress. The Contractor shall provide safe facilities for such access.
- 3.3.3 The Owner and the Project Manager shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work and will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Project Manager will not be responsible for the acts or omissions of the Contractor, any Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.
- 3.3.4 The Project Manager shall have authority on behalf of the Owner to condemn or reject Work when, in the Project Manager's opinion the Work does not conform to the Contract Documents. Whenever, in the Project Manager's reasonable opinion, it is considered necessary or advisable to ensure the proper implementation of the intent of the Contract Documents, the Project Manager shall have the authority to require special inspection or

testing of any Work in accordance with the provisions of the Contracts Documents, whether or not such Work be then fabricated, installed, or completed.

- 3.3.5 The Project Manager will have authority to require additional inspection or testing of the Work in accordance with Subparagraph 7.7.3, whether or not such Work be then fabricated, installed, or completed. However, neither the Project Manager's authority to act under Subparagraphs 3.3.4 and 3.3.5, nor any decision made by the Project Manager in good faith either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Project Manager to the Contractor, any Subcontractor, any of their agents or employees, or any other persons performing any of the work.
- 3.3.6 The Project Manager shall have the authority and discretion to call, schedule, and conduct job meetings to be attended by the Contractor, and representatives of his Subcontractors, and Material Suppliers, and Vendors and the Architect, to discuss such matters as procedures, progress, changes, problems, claims and scheduling.
- 3.3.7 The Project Manager will establish procedures to be followed for processing all Shop Drawings, catalogs, and other project reports, and other documentation, test reports, and maintenance manuals.
- 3.3.8 The Project Manager will review all requests for changes and shall implement the processing of Change Orders, including applications for extension of the Contract time.
- 3.3.9 Project scheduling shall occur as set forth in Division 1, Section 01311 of the General Requirements, entitled "Schedules and Reports". The Owner and the Project Manager will not be responsible for the failure of the Contractor to plan, schedule, and execute the Work in accordance with the Contractor's accepted schedule or the failure of the Contractor to meet the Project Schedule Milestone Dates as set forth under Section 00200 hereof or the failure of the Contractor to schedule and coordinate the Work of his own trades and Subcontractors, and Material Suppliers and Vendors, or the failure of the Contractor to coordinate and cooperate with other separate contractors.
- 3.3.10 The Project Manager, in consultation with the Architect, will review and process all Applications for Payment by the Contractor, including the final Application for Payment.
- 3.3.11 The Owner and the Project Manager will not be responsible for the acts or omissions of the Contractor, or any Subcontractor, or Material Supplier and Vendor, or any contractor's, subcontractor's or Material Supplier's and Vendor's agents or employees, or any other persons performing any of the Work.
- 3.3.12 The Owner shall, if requested by the Contractor, furnish all existing and available surveys describing the physical characteristics, legal limitations and utility locations for the site of the Project.
- 3.3.13 Except as otherwise provided in the Contract Documents, the Owner shall pay for necessary easements required for permanent structures or for permanent changes in existing facilities. The Contractor shall be responsible for obtaining all necessary permits and coordinating the securing of easements, inspections and approvals for permanent structures and all associated work.
- 3.3.14 Information or services under the Owner's control shall be furnished by the Owner with reasonable promptness to avoid delay in the orderly progress of the Work.
- 3.3.15 Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, all copies of Drawings and Specifications, and such supplemental

documents as are reasonably necessary for the execution of the Work.

- 3.3.16 The foregoing rights are in addition to other rights of the Owner enumerated herein and those provided by law.

3.4 OWNER'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

- 3.4.1 The Owner reserves the right to perform other work at the project site(s) with his own forces, and to award separate contracts in connection with portions of other work on the site.
- 3.4.2 The Contractor shall afford the Owner and separate Contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their Work, and shall coordinate his Work with theirs as required by the Contract Documents.
- 3.4.3 A pre-construction conference will be held with the Contractor, Project Manager, and other contractors performing work at the project site, for the purpose of coordinating work in areas where more than one contractor may be working. The time of the meeting will be established by the Owner's Representative prior to the Contractor commencing his work.
- 3.4.4 The Contractor shall attend additional coordination meetings, as requested by the Owner's Representative.

3.5 OWNER'S RIGHT TO STOP OR TO SUSPEND THE WORK

- 3.5.1 If the Contractor fails to correct defective Work as required by Paragraph 13.2 or fails to carry out the Work or supply labor and materials in accordance with the Contract Documents, the Owner, through the Project Manager, by a written order may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Project Manager to stop the Work on behalf of the Owner shall not give rise to any duty on the part of the Project Manager to exercise this right for the benefit of the Contractor or any other person or entity.
- 3.5.2 The Project Manager may order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as he may determine to be appropriate for the convenience of the Owner.
- 3.5.3 Upon receipt of any such suspension order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize incurring costs allocated to the Work covered by the order during the period of Work suspension.
- 3.5.4 If the performance of all or any part of the Work is suspended, or delayed, or interrupted by the Owner or the Project Manager pursuant to Subparagraph 3.5.2, the Contractor may make application for an adjustment in contract time and contract sum pursuant to Paragraph 12.2, and Division 1, Section 01311, Paragraph 2.03, respectively. No such adjustment shall be made if the performance of the Work is suspended by the Owner pursuant to Subparagraph 3.5.1.

3.6 OWNER'S RIGHT TO CARRY OUT THE WORK

- 3.6.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within seven (7) days after receipt of written notice from the Project Manager to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, after seven (7) days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy he may have,

make good such deficiencies and may further elect to complete all Work thereafter through such means as the Owner may select, including the use of a new Contractor. In such a case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including additional Owner administrative and legal costs, and compensation for the Architect's and the Project Manager's additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

3.7 AUDIT

- 3.7.1 The Owner shall have access to the Contractor's books, accounts, records, invoices and other records and documents pertaining to the Project at all reasonable times for the purpose of inspecting and auditing such. The Contractor shall provide to the Owner his daily manpower and equipment reports for all Subcontractors and any and all information requested or required by the Owner to validate or verify an Application for Payment, claim for cost or a requisition. The Contractor shall have no right to additional compensation or time in the event a requisition is delayed due to the inability of the Owner to validate or verify an Application for Payment due to the failure or refusal of the Contractor to allow such inspection or audit or to provide such requested information.
- 3.7.2 The Contractor shall maintain all data and records pertinent to the Work performed under this Contract in accordance with generally accepted accounting principles, and shall preserve and make available all data and records until the expiration of three (3) years from the date of final payment under this Contract, or for such longer period, if any, as is required by applicable statute, pending litigation, or by other articles of this Contract. The Owner and its authorized representatives shall have access to all such data and records for such time period to inspect, audit and make copies thereof during normal business hours.
- 3.7.3 The Contractor covenants and agrees that it shall require that any Subcontractor and any Sub-Subcontractor utilized in the performance of this Contract shall permit the authorized representatives of the Owner to similarly inspect and audit all data and records of said Subcontractors and Sub-Subcontractors relating to the performance of said Subcontractors and Sub-Subcontractors under this Contract for the same time period specified above.

END OF ARTICLE 3

ARTICLE 4

CONTRACTOR

4.1 DEFINITION

- 4.1.1 The Contractor is the person or organization identified as such in the Owner-Contractor Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Contractor means the Contractor or his authorized representative, who shall have the authority to bind the Contractor in all matters pertinent to this Contract.

4.2 REVIEW OF CONTRACT DOCUMENTS

- 4.2.1 Before placing his proposal to the Owner, and continuously after execution of the Contract, the Contractor shall carefully study and compare the Contract Documents and shall at once report to the Owner, through the Project Manager, any error, inconsistency or omission he may discover, including any requirement which may be contrary to any law, ordinance, rule, regulation or order of any public authority bearing on the performance of the Work. By submitting his proposal or bid for the Contract and the Work under it, the Contractor agrees that the Contract Documents appear accurate, consistent, and complete insofar as can reasonably be determined. If the Contractor has reported in writing an error, inconsistency or omission, has promptly stopped the affected work until otherwise instructed, and has otherwise followed the instructions of the Owner, the Contractor shall not be liable to the Owner for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents. The Contractor shall perform no portion of the Work at any time without Contract Documents and, where required, approved Shop Drawings, Product Data or Samples for such portion of the Work.

4.3 SUPERVISION AND CONSTRUCTION PROCEDURES

- 4.3.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for and have control over all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.
- 4.3.2 The Contractor shall be responsible to the Owner for the acts and omissions of his employees, Subcontractors, and Material Suppliers and Vendors, and their agents and employees, and other persons performing any of the work.
- 4.3.3 The Contractor shall not be relieved from his obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Architect or the Project Manager in their administration of the Contract, or by inspections, tests or approvals (or the lack thereof) required or performed under Paragraph 7.7 by persons other than the Contractor.
- 4.3.4 Independent of this Contract, the Owner has undertaken a long term asbestos abatement program by which the Owner intends to properly document the existence of asbestos-contained materials and the lawful removal of ACM by qualified asbestos abatement contractors or subcontractors in accordance with the Asbestos Hazard Emergency Response Act (AHERA) and the Asbestos School Hazard Abatement Reauthorization Act (ASHARA). As part of this asbestos abatement program, the Owner has employed a private consultant to locate asbestos-containing materials present in the Owner's facilities. A copy of the AHERA report as it relates to the facility which is involved in this Contract can be obtained from the Owner by contacting the Project Manager.

- 4.3.4.1 Before starting the Work or any Section of the Work, the Contractor shall inspect or, if using a Subcontractor for a Section of the Work, shall cause his Subcontractor to inspect all preparatory work, including that performed prior to the commencement of the Work under this Contract, for the presence of suspected asbestos-containing materials.
- 4.3.4.2 If the Contractor or his Subcontractor encounters any asbestos-containing material or suspected asbestos-containing material -- whether such material is identified in the AHERA report or the private consultant's report or not -- the Contractor shall bring it to the immediate attention of the Project Manager by timely written notice. Such notification shall be considered timely if received by the Project Manager within two (2) days after the discovery of the asbestos-containing material or suspected asbestos-containing material by the Contractor or by a Subcontractor if the Contractor uses a Subcontractor to perform that Section of the Work. If the Contractor does not give timely notice of the presence of asbestos-containing material or suspected asbestos-containing material, the Contractor will not receive additional compensation for delay caused by the necessity of the Owner to stop work and abate asbestos-containing material during the course of the Work. Failure of a Subcontractor to report the presence of asbestos-containing material or suspected asbestos-containing material to the Contractor shall not relieve the Contractor of his responsibilities hereunder.
- 4.3.4.3 If the Contractor, or his employees, agents or subcontractors intentionally or negligently disturbs or removes, or causes to be disturbed or removed, all or a portion of asbestos-containing material, the Contractor shall indemnify, hold harmless and defend the School District and the Project Manager from and against any claims, damages, losses and expenses, and alleged claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from any cleanup/decontamination work, medical treatment, or legal action arising or resulting from said intentional or negligent disturbance or removal of asbestos-containing material.
- 4.3.5 The Contractor shall make all necessary arrangements and so conduct the Work that all parts of the same will be carried out simultaneously and harmoniously and that the work of installing the various sections or items of same shall not interfere with or retard the progress of other Work.
- 4.3.6 If it becomes necessary at any time during the progress of the Work to move materials and/or equipment which have been temporarily located or stored, the Contractor shall move them or cause them to be moved, at his expense. Care shall be taken that no part of the Work shall be overloaded at any time.
- 4.3.7 The Contractor shall furnish all required information to ensure continuity between various sections of the Work and to avoid delay and obviate defects on any part of the whole Work, all as approved by the Owner.
- 4.3.8 Any damage caused by the handling or installation of materials or equipment, or the carrying out of any portion of the Work must also be made good by the Contractor to the satisfaction of the Project Manager.
- 4.3.9 The Contractor shall compare all the various drawings, and shall install Work in a manner to provide for all clearances and finishes indicated thereon. Work under each trade shall be arranged to clear piping, equipment, etc., of all other trades.
- 4.3.10 The Contractor shall inform himself fully regarding any peculiarities and limitations of the

space available for the installation of the material. He shall see that all equipment, such as valves, or other appliances necessary to be reached from time to time for operations and maintenance are made readily accessible.

- 4.3.11 The construction of the Work may develop conditions that render impracticable the location of equipment as shown or noted. In such cases, before installing his Work, the Contractor shall call the condition to the attention of the Project Manager for resolution.
- 4.3.12 It shall be the Contractor's sole responsibility to so coordinate the Work that chases or other recesses in walls shall be provided where required, and that reasonable clearance between the work of various trades shall be maintained. The layout for openings and chases through walls, floors, and partitions, etc., shall be arranged in advance of the actual construction and the work carried out without unnecessary and superfluous cutting, etc., after the Work has been completed.
- 4.3.13 Dimensions shall be verified by the measurements of the buildings and the property, and the Contractor shall be responsible for all of his work fitting in place in a satisfactory and workmanlike manner.
- 4.3.14 The Contractor has carefully examined, in detail, all of the Drawings and Specifications and the time established for completion of the Work, and he accepts them as adequate to meet the requirements specified.
- 4.3.15 The Contractor shall be responsible for coordinating the work performed by any artist in connection with the project's ornamentation with the construction of this project, so that there shall be no unnecessary delay or interference in connection with said construction.
- 4.3.16 The Contractor shall coordinate and generally supervise the Work of this Contract and shall coordinate his Work with Work performed under Separate Contracts by mutual arrangement and agreement with the Contractors for those Contracts and the Project Manager. Unresolved disputes will be finally resolved by the Project Manager, subject to approval of the Owner, and the dispute resolution provisions of Subparagraph 12.5.

4.4 LABOR AND MATERIALS

- 4.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the execution and completion of the Work in accordance with the Contract Documents, and any applicable building permit, conditional and final certificate(s) of occupancy, code or statute, whether specifically required by the Contract Documents or whether their provision may reasonably be inferred as necessary to produce the intended results, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- 4.4.2 The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him. The Project Manager may, by notice in writing, require the Contractor to promptly remove from the site of the Work any employee or worker the Project Manager deems incompetent, careless or otherwise objectionable including violation of District Policies relating to alcohol, illegal drugs, or firearms on District property.
- 4.4.3 The Contractor shall be responsible for ensuring that the Work is completed in a skillful and workmanlike manner.

4.5 WARRANTY

- 4.5.1 The Contractor warrants to the Owner and the Architect that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements, including substitutions not properly approved and authorized, is defective. If required by the Project Manager or the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of Paragraph 13.2.
- 4.5.2 The warranties set forth in this Paragraph 4.5 and elsewhere in the Contract Documents shall survive final acceptance under Paragraph 9.9.

4.6 TAXES

- 4.6.1 The Contractor shall pay all sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Contractor which are legally enacted at the time bids are received, whether or not yet effective.

4.7 PERMITS, FEES AND NOTICES

- 4.7.1 Except as specifically provided in Subparagraph 3.3.13 the Contractor shall secure and pay for (1) all permits and governmental fees, licenses and inspections necessary for the proper execution of the Work which are legally required at the time the bids are received, and (2) all permits and governmental fees, licenses and inspections from any agency or department of the Municipality of Anchorage that would be necessary for the proper execution of the Work or legally required at the time bids are received just as if the Work were performed and the Project located within the Municipality of Anchorage. The Municipality of Anchorage shall be considered a "public authority bearing on the performance of the Work" and a "public authority having jurisdiction" for purposes of this Contract.

- 4.7.1.1 The Anchorage School District has paid for the Municipality of Anchorage's Building Plan Review and Building Fee Permit. Contractor shall obtain permit upon notice from Project Manager.

- 4.7.2 The Contractor shall give all notices and comply with all such laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work.
- 4.7.3 If the Contractor performs any Work knowing it to be contrary to any such laws, ordinances, rules, regulations or orders of any public authority bearing on the performance of the Work, and does so without reasonable notice to the Project Manager, the Contractor shall assume full responsibility therefore and shall bear all costs attributable thereto.
- 4.7.4 Notification, coordination and completion of the installation of all required utilities, whether temporary or permanent, is the sole responsibility of the Contractor. The Owner shall not be responsible for any damage or delay caused by any party's inability to perform installations in the time frame desired by the Contractor.

4.8 ALLOWANCES

- 4.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by these allowances shall be supplied for such amounts and by such persons as the Owner may direct, but the Contractor will not be required to employ persons against whom he makes a reasonable objection.

4.8.2 Unless otherwise provided in the Contract Documents:

- 4.8.2.1 These allowances shall cover the cost to the Contractor, less any applicable trade discount, of the materials and equipment required by the allowance delivered at the site, and all applicable taxes;
- 4.8.2.2 The Contractor's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the original allowance shall be included in the Contract Sum and not in the allowances;
- 4.8.2.3 Whenever the cost is more than or less than the allowance, the Contract Sum shall be adjusted accordingly by Change Order, the amount of which will recognize changes, if any, in handling costs on the site, labor, installation costs, overhead, profit and other expenses.

4.9 SUPERINTENDENT

- 4.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance full-time at the Project Site during the progress of the Work. The superintendent shall represent the Contractor, and all communications given to the superintendent shall be as binding as if given to the Contractor. If requested by the Project Manager, the Contractor shall provide a management chart and a list of personnel in a number stipulated by the Project Manager which shall comprise the superintending staff. In such event, all references to the superintendent elsewhere in the Contract Documents shall mean the superintending staff.
- 4.9.2 The superintendent shall be in attendance at the Project Site not less than eight (8) hours per day, five (5) days per week, unless the job is closed down due to a general strike or conditions beyond the control of the Contractor or until termination of the Contract in accordance with the Contract Documents. The superintendent shall not be employed on any other project during the course of the Work.
- 4.9.3 In the event any of the following conditions shall exist, the Contractor shall require that his superintendent be at the Project Site not less than ten (10) hours per day, six (6) days per week:
 - 4.9.3.1 Should Substantial Completion not be accomplished on schedule.
 - 4.9.3.2 Should Final Completion not be accomplished on schedule.
 - 4.9.3.3 Should the Contractor's progress schedule indicate the Contractor to be fourteen (14) or more days behind schedule at any time during construction up until thirty (30) days prior to scheduled Substantial Completion.
 - 4.9.3.4 Should the Contractor's progress schedule indicate the Contractor to be seven (7) or more days behind schedule at any time during the last thirty (30) days prior to scheduled Substantial Completion.

4.10 CONSTRUCTION SCHEDULE

- 4.10.1 The Contractor shall prepare and submit to the Project Manager for the Owner's review and acceptance a construction schedule pursuant to and in accordance with Division 1, Section 01311 of the General Requirements entitled "Project Schedule."

4.11 DOCUMENTS AND SAMPLES AT THE SITE

- 4.11.1 The Contractor shall maintain at the site for the Owner one record copy of all Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to record all changes made during construction, and approved Shop Drawings, Product Data and Samples. These shall be available to the Project Manager and the Architect and shall be delivered to the Project Manager upon substantial completion of the Work.

4.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- 4.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
- 4.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, diagrams, and other information furnished by the Contractor to illustrate a material, product or system for some portion of the Work.
- 4.12.3 Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.
- 4.12.4 The Contractor shall review, approve and submit using the ASD Procore Construction Management Program, with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of the Owner or any separate contractor, all Shop Drawings, Product Data and Samples required by the Contract Documents, or subsequently by the Project Manager. The Contractor's Shop Drawings, Product Data, and Samples submissions shall be coordinated and consistent with the Contractor's Project Scheduling obligations under Division 1, Section 01311 of the Contract Documents. Shop Drawings and Samples shall be properly identified as specified, or as the Project Manager may require. At the time of submission, the Contractor shall inform the Architect in writing of any deviation in the Shop Drawings or Samples from the requirements of the Contract Documents.
- 4.12.5 By approving and submitting Shop Drawings, Product Data and Samples, the Contractor represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. The Contractor shall adhere to any supplementary processing and scheduling instruction pertaining to Shop Drawings which may be issued by the Project Manager.
- 4.12.6 The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Architect's approval and Project Manager's review of Shop Drawings, Product Data or Samples under Subparagraph 2.2.14 unless the Contractor has specifically informed the Architect and Project Manager in writing of such deviation at the time of submission and the Architect and Project Manager have given written approval to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omission in the Shop Drawings, Product Data or Samples by the Architect's approval of or Project Manager's review thereof.
- 4.12.7 The Contractor shall promptly make corrections required by the Architect and shall resubmit the required number of corrected copies of Shop Drawings or new Product Data or Samples. The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by the

Architect on previous submittals. Resubmittals necessitated by required corrections due to Contractor's errors or omissions, or less than complete submittals as required by the specifications, shall not be cause for extension of Contract Time.

- 4.12.8 The Contractor shall keep on the job at all times copies of approved Shop Drawings, Product Data or Samples which bear the review stamp of the Architect/Engineer.
- 4.12.9 The review of Shop Drawings, Product Data or Samples by the Architect and Project Manager shall not relieve the Contractor from his responsibility to coordinate the work of the Subcontractors.
- 4.12.10 The review of Shop Drawings, Product Data or Samples by the Architect and the Project Manager shall not relieve the Contractor of his responsibilities to construct the work in accordance with the Contract Documents.
- 4.12.11 The review of Shop Drawings, Product Data or Samples by the Architect shall not be construed as an approval of the quantities of materials or confirmation of dimensions.
- 4.12.12 In preparing a schedule for delivery of materials the Contractor shall allow reasonable time for the approval, including resubmissions due to Contractor's errors and omissions, of Shop Drawings, Product Data or Samples.
- 4.12.13 When Shop Drawings, Cuts, or Brochures are forwarded to the Architect by the Contractor for approval, a copy of the Contractor's letter of transmittal with project name, Contractor's name, number of drawings, title and other pertinent data covering each transaction is to be mailed to the Project Manager. The Architect and his consulting Engineers shall follow the same procedure when it is necessary for them to return or transfer Shop Drawings, Cuts or Brochures either between themselves or to the Contractor for changes, corrections or resubmittal, so that the Project Manager can record and follow procedure for each transaction to finality.
 - 4.12.13.1 Pursuant to and consistent with the Contractor's Project Schedule development obligations under Division 1, Section 01311 of the Contract Documents, the Contractor shall submit Shop Drawings, Product Data and Sample submission schedule information to the Architect and Project Manager. The Contractor shall submit, and the Architect and Project Manager will review, the Contractor's submittals in accordance with the Contractor's accepted Preliminary and Detailed Project Schedules, as required under Division 1, Section 01311 of the Contract Documents. The Contractor shall submit no Shop Drawings, Product Data or Samples which do not comply with the Contract Documents.
 - 4.12.13.2 No portion of the Work requiring a Shop Drawing, Product Data or Sample submission shall be commenced until such submission has been reviewed, and approved, by the Architect in accordance with Subparagraph 2.2.13. All such portions of the Work shall be in accordance with approved submittals.
 - 4.12.13.3 No claim for delay shall be allowed the Contractor on account of failure of the Architect to furnish drawings or approval of Shop Drawings and Samples until at least twenty-one (21) days after submission to the Architect.
- 4.12.14 Shop Drawings, Product Data, and Samples shall be dated and shall bear the name of the Project; a description or the names of equipment, materials and items; and complete identification of locations at which materials or equipment are to be installed.

4.12.15 In submitting for approval the use of any material or device as the equal of some other material or device specified by name, the Contractor shall submit a sample of the material specified and also a sample of the material proposed to be submitted as the equal thereof, together with any supporting data necessary to reasonably allow the Architect and the Project Manager to review the material.

4.12.16 In case of devices, samples of which cannot readily be submitted, catalogs and other data, shall be submitted.

4.12.17 Any material or device proposed to be substituted shall not be deemed acceptable except by written communication from the Architect and Project Manager.

4.12.18 All Work for which samples are required to be submitted and approved shall be executed and performed in conformity with the said approved samples.

4.13 USE OF SITE

4.13.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the building or site with any materials or equipment.

4.13.2 The Contractor shall coordinate all of his operations with and secure approval from the Project Manager before using any portion of the site.

4.13.3 All Work or materials of every description subject to injury during the course of the Work shall be fully protected from damage from any source. In any event, should any Work or materials under this Contract, become damaged in any way or manner the Contractor shall repair and perfect the same at his own expense, and when the entire Contract is completed, the building and premises shall be delivered to the Owner without defects. Any damage which may be caused by the installation of any portion of the Work covered by these specifications and conditions, or by the Contractor shall be satisfactorily made good and repaired by the Contractor without cost to the Owner.

4.13.4 The Contractor shall provide and maintain all lights, footways, guards, fences, gates, etc., for the proper protection of the public, and shall comply with all municipal rules, regulations, ordinances and laws, relating to the prosecution of his work.

4.13.5 The Contractor shall properly and carefully shore up or otherwise support all live water, sewer and gas pipes, electric wires, free-standing walls, conduit, etc., which may be encountered.

4.13.6 The Contractor shall furnish for his use, throughout the entire construction all scaffolding, ladders, decking or runways as needed to perform the Work under this Contract.

4.13.7 The Contractor shall construct elevators, cranes and other rigging, concrete lifts, etc., as required for his Work.

4.13.8 All such construction shall be carried out as required by the code or authority having jurisdiction. No cranes or other heavy equipment shall be located or moved in such manner as to damage or strain the framework or any part(s) of the proposed building and/or existing building.

4.13.9 As construction proceeds, the Project Manager may deem it necessary to have the Contractor move trailers, fences, stored materials, etc., to facilitate the construction. Upon written notice from the Project Manager, this will be done without additional cost to the

Owner.

4.13.10 When school is in session the Contractor will be restricted to the areas which do not interfere with school operations. These areas shall be safety and security fenced to not impact school operations. Additional areas may be utilized upon concurrence of the Project Manager. The Contractor shall minimize his impact on the educational program while his work is in progress. Workers must stay out of school while school is in session. All work in the existing school can only take place during the hours approved by the Project Manager

4.13.11 The Contractor must maintain interior building fire exits through the construction areas and maintain these exits during all school operation hours, to the satisfaction of the Authorities having Jurisdiction. These exit routes may not be modified without concurrence of the Project Manager and the School Principal.

4.13.12 The Contractor must maintain fire equipment access routes open to site and buildings. According to UFC 10.502 fire equipment access and water supplies shall be installed and made serviceable prior to and during the time of construction. This is the Contractor's responsibility to coordinate.

4.13.13 The Contractor shall keep the boilers operational while the average outside temperature is below 60° F while the school program is in operation or at any time temperature is below 40° F, to protect facility utility systems.

4.14 CUTTING AND PATCHING OF WORK

4.14.1 The Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work or to make its several parts fit together properly.

4.14.2 The Contractor shall not damage or endanger any portion of the Work or the work of the Owner or any separate contractors by cutting, patching or otherwise altering any work, or by excavation. The Contractor shall not cut or otherwise alter the work of the Owner or any separate Contractor except with the written consent of the Owner and of such separate Contractor. The Contractor shall not unreasonably withhold, from the Owner, or any separate contractor his consent to cutting or otherwise altering the Work.

4.14.3 Existing structures and facilities including but not limited to building, utilities, topography, streets, curbs, walks, etc., that are damaged or removed due to required excavations or other construction work, shall be patched, repaired or replaced by the Contractor to the satisfaction of the Project Manager, the owner of such structures and facilities, and authorities having jurisdiction. In event the local jurisdictional authorities require that such repairing and patching be done with their own labor and materials, the Contractor shall abide by such regulations and pay for such work.

4.14.4 Whenever, for the convenience of work, an oversized opening has been provided, it shall be the responsibility of the Contractor requesting and requiring such opening to eventually fill unused portions of such openings with the appropriate material and with special attention to penetrations of firewalls. Such repair shall be in accordance with Paragraph 4.14.1.

4.15 CLEANING UP

4.15.1 The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work he shall remove all his waste materials and rubbish from and about the Project as well as all his

tools, construction equipment, machinery and surplus materials.

- 4.15.2 If the Contractor fails to clean up during or at the substantial or final completion of his Work, the Owner may do so as provided in Paragraph 6.3 and the costs thereof shall be charged to the Contractor.

4.16 COMMUNICATIONS

- 4.16.1 The Contractor shall forward all communications to the Architect or the Owner through the Project Manager, except as described under Paragraph 4.12.13.

4.17 ROYALTIES AND PATENTS

- 4.17.1 The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Project Manager.

4.18 INDEMNIFICATION

- 4.18.1 To the fullest extent permitted by law, the Contractor shall, at his sole cost and expense, indemnify, hold harmless and defend the Owner, the Municipality of Anchorage and their Board or Assembly members, administrators, representatives, and employees, and the Project Architect and its agents, representatives, and employees from and against all claims, actions, judgments, costs, liabilities, penalties, damages, losses and expenses, including but not limited to attorneys' fees, which arise out of or result from the performance of the Work, and which are:

- 4.18.1.1 Attributable to bodily injury, sickness, disease or death, or to injury to, pollution of, or destruction of property (other than the Work itself) including the loss of use resulting therefrom; and
- 4.18.1.2 Caused by the default of the Contractor, or by any act, whether negligent or wrongful, or omission of the Contractor, any Subcontractor, Material Supplier or Vendor, anyone directly or indirectly employed by any of them or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

- 4.18.2 In any and all claims against the Owner or the Municipality of Anchorage or their Board or Assembly members, administrators, representatives or employees, and the Project Architect and its agents, representatives, and employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 4.18 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor and Subcontractor under worker's compensation acts, disability benefit acts or other employee benefit acts.

4.19 PERSONS AUTHORIZED TO SIGN DOCUMENTS

- 4.19.1 The Contractor, within five (5) days after the Notice to Proceed shall file with the Project Manager a list of all persons who are authorized to sign documents such as contracts,

modifications, schedules, certificates, and affidavits on behalf of the Contractor and to fully bind the Contractor to all the Conditions and provisions of such documents, except that in the case of a corporation he shall file with the Project Manager a certified copy of a resolution of the Board of Directors of the corporation in which are listed the names and titles of corporation personnel who are authorized to sign documents on behalf of the corporation and to fully bind the corporation to all the conditions and provisions of such documents. This person, or at least one of these persons, shall be available to meet in Anchorage, Alaska, with the Owner or his representative(s) to discuss, negotiate and/or resolve any Change Order or other Modification to the Contract or any other matter needing resolution by the parties as determined at the sole discretion of the Owner within forty-eight (48) hours after receipt of written notice, at no additional cost to the Owner.

4.20 CONDITIONS AFFECTING THE WORK

- 4.20.1 The Contractor shall be responsible for taking all steps necessary to ascertain the nature and location of the Work and the general and local conditions which can affect the Work or the cost thereof. Failure by the Contractor to fully acquaint himself with conditions which may affect the Work, including, but not limited to conditions relating to transportation, handling, storage of materials, availability of labor, water, roads, weather, topographic and subsurface conditions, multi-prime contract conditions, applicable provisions of law, and the character and availability of equipment and facilities needed prior to and during the execution of the Work, shall not relieve the Contractor of his responsibilities under the Contract Documents and shall not constitute a basis for an adjustment in the Contract Sum or the Contract Time under any circumstances. The Owner assumes no responsibility for any understanding or representation about conditions affecting the Work made by any of his officers, employees, representatives, or agents prior to the execution of the Contract, unless such understandings or representations are expressly stated in the Contract Documents.
- 4.20.2 Until final acceptance by the Owner, the Contractor shall be in complete control of and fully responsible for the Work.
- 4.20.3 The Contractor shall give to the proper authorities all required notices relating to the Work in his charge, and shall be responsible for all acts and events which are violations of the law or which would be violations of the law had the Work been performed or the Project located within the Municipality of Anchorage.
- 4.20.4 Wherever herein mention is made of any article, material or workmanship to be in accordance with the laws, ordinances, building code, Underwriter's Code, and A.S.T.M. Specifications or similar expressions, the requirement of these laws, ordinances, etc., shall be construed as the minimum requirements of these Specifications, and all articles, materials and workmanship required by these laws, ordinances, etc., shall be provided by the Contractor without any additional cost to the Owner.
- 4.20.5 Where the requirements of the laws, ordinances, etc., are mandatory, they shall govern.
- 4.20.6 Where the requirements of the Specifications call for higher grade or are not in conflict with the laws, ordinances, etc., the Specifications shall govern.
- 4.20.7 In case of any apparent conflict between the Specifications and such laws, ordinances, etc., the Contractor shall immediately call the attention of the Project Manager (in writing) to such conflict for decision, before proceeding with any work which may involve such conflict.

END OF ARTICLE 4

ARTICLE 5

SUBCONTRACTORS

5.1 DEFINITION

- 5.1.1 A Subcontractor is a person, organization or entity who has a direct contract with the Contractor to perform any of the Work. The term Subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Subcontractor or his authorized representative. The term Subcontractor does not include any separate contractor or his subcontractors.
- 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform any of the Work. The term Sub-subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Sub-subcontractor or an authorized representative thereof.
- 5.1.3 Nothing contained in the Contract Documents is intended to, nor shall it create, any contractual relationship between the Owner, the Project Manager, the Architect, or any of their agents, employees, or representatives and any Subcontractor or Sub-subcontractor.

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

- 5.2.1 The Contractor, in compliance with the requirements of the Contract Documents, shall furnish to the Project Manager in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work. The Project Manager will within ten (10) days of receipt of such information reply to the Contractor in writing stating whether or not the Owner, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Project Manager to reply within a reasonable time shall constitute notice of no reasonable objection. The Contractor understands and agrees that no contractual agreement exists for any part of the Work under this Contract between the Owner and any of the Contractor's Subcontractors or Sub-subcontractors. Further, the Contractor understands and agrees that he alone is responsible to the Owner for all of the Work under this Contract and that any review of Subcontractors or Sub-subcontractors by the Owner or Project Manager will not in any way make the Owner responsible to any Subcontractor or Sub-subcontractor, nor responsible for the actions or failures of any Subcontractor or Sub-subcontractor.
 - 5.2.1.1 Within ten (10) days after the Notice to Proceed, the Contractor shall furnish to the Project Manager, in writing, for acceptance by the Owner, a list of names of the Subcontractors, Sub-subcontractors, and Material Suppliers and Vendors, proposed for the principal portions of the Work.
 - 5.2.1.2 Within thirty-five (35) days after Notice to Proceed, the Contractor shall submit to the Project Manager, copies of Purchase Orders or other satisfactory evidence of purchase for all major materials.
- 5.2.2 The Contractor shall not contract with any such proposed person or entity to whom the Project Manager has made reasonable objection under the provisions of this Subparagraph.
 - 5.2.2.1 The Contractor shall not be required to contract with anyone to whom he has a reasonable objection. There shall be no entitlement to additional compensation based upon the Project Manager's reasonable objection made

under this Section.

- 5.2.3 If the Project Manager has reasonable objection to any such proposed person or entity, the Contractor shall submit a substitute to whom the Project Manager has no reasonable objection.
- 5.2.4 The Contractor shall make no substitution for any Subcontractor, person or entity previously selected if the Project Manager makes reasonable objection to such substitution.
- 5.2.5 During the course of the Project the Contractor must notify the Project Manager in writing regarding any changes in any Work by any Subcontractor, Sub-subcontractor, Material Supplier or Vendor.

5.3 SUBCONTRACTUAL RELATIONS

- 5.3.1 By an appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner. Said agreement shall preserve and protect the rights of the Owner under the Contract Documents with respect to the Work to be performed by the Subcontractor so that the subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the Contractor-Subcontractor agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with his Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the Subcontract, copies of the Contract Documents to which the Subcontractor will be bound by this Paragraph 5.3, and identify to the Subcontractor any terms and conditions of the proposed Subcontract which may be at variance with the Contract Documents. Each Subcontractor shall similarly make copies of such Documents available to his Sub-subcontractors, Material Suppliers or Vendors.
- 5.3.2 In addition to Sub-Contractual agreement in Paragraph 5.3.1, the Contractor shall allow the Subcontractor, Sub-subcontractor, Material Supplier or Vendor to notify the Project Manager due to failure of payment, unwarranted retainage or deductions of payment or unwarranted lateness of payment.
- 5.3.3 As a condition precedent to the acceptance of the Contractor's proposed Preliminary and Detailed Project Schedules by the Project Manager, each major Subcontractor shall in writing, with the submission of said schedules by the Contractor, confirm that they have reviewed the Contractor's proposed Project Schedules, and that each concurs with the activity breakdowns, durations, cost loading, and logic as relates to each major Subcontractor's scope of the Work and the incorporation of said Work into the Contractor's proposed Preliminary and Detailed Project Schedules, as prescribed under Division 1, Section 01311 of the General Requirements of the contract documents.

5.4 PREPARATORY WORK

- 5.4.1 Before starting work, the responsible Subcontractor shall carefully examine all preparatory Work that has been executed to receive his Work. He shall check carefully, by whatever means are required, to ensure that his work and adjacent related Work will finish to proper contours, planes, and levels. He shall promptly notify the Contractor and the Project

Manager of any defects or imperfections in preparatory Work which will, in any way, affect satisfactory completion of his Work. Absence of such notification will be construed as an acceptance of preparatory work and later claims of defects therein will not be recognized.

- 5.4.2 Each Subcontractor is required to follow the provisions of 4.3.4 relating to asbestos abatement.

5.5 PAYMENTS TO SUBCONTRACTORS, SUB-SUBCONTRACTORS, AND MATERIAL SUPPLIERS AND VENDORS

- 5.5.1 If the Project Manager withholds a Certificate for Payment for any cause which is the fault of the Contractor and not the fault of a particular Subcontractor, Sub-subcontractor, and Material Supplier and Vendor, the Contractor shall pay that Subcontractor, Sub-subcontractor, Material Supplier and Vendor on demand, made at any time after the Certificate for Payment should otherwise have been issued, for his work to the extent completed, less any retained percentage.
- 5.5.2 The Contractor shall pay each Subcontractor, Sub-subcontractor, and Material Supplier and Vendor a just share of any insurance monies received by the Contractor, and he shall require each Subcontractor to make similar payments.

END OF ARTICLE 5

ARTICLE 6

WORK BY OWNER OR BY SEPARATE CONTRACTORS

6.1 OWNER'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

- 6.1.1 The Owner reserves the right to perform work related to the Project with his own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar Conditions of the Contract.
- 6.1.2 When separate contracts are awarded for different portions of the Project or other work on the site, the term Contractor in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.
- 6.1.3 Upon transfer of such separate contracts to a General Contractor, if the Owner so desires to transfer such contracts, the Contractor shall be obligated to the conditions as outlined by Paragraph 6.3. of these Conditions.

6.2 MUTUAL RESPONSIBILITY

- 6.2.1 The Contractor shall afford the Owner and separate Contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their Work, and shall connect and coordinate his Work with theirs as required by the Contract Documents.
- 6.2.2 If any part of the Contractor's Work depends for proper execution or results upon the Work of the Owner or any separate contractor, the Contractor shall, prior to proceeding with the Work, promptly report to the Owner any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report in writing to the Owner shall constitute an acceptance of the Owner's or separate contractors' work as fit and proper to receive his Work, except as to defects which may subsequently become apparent in such work by others.
 - 6.2.2.1 In addition to inspection as to defect, the Contractor, if so deemed necessary by the Contractor, shall measure or inventory work already in place or stored and shall at once report, in writing, to the Project Manager any conflicts between the executed Work and the Contract Documents the Contractor has signed his name thereto.
 - 6.2.2.2 Upon notification from the Owner that a part of the Work furnished under this Contract is not in accordance with the Contract Documents, the Contractor shall immediately initiate action to correct the Work.
 - 6.2.2.3 If the Contractor fails to install his Work in a timely manner, the Owner through the Project Manager may authorize other Contractor(s) to perform their Work out of proper sequence. All extra Work necessary to properly interface with the other Contractor(s)' Work will be accomplished by this Contractor at no additional cost to the Owner.
- 6.2.3 Any costs caused by defective or ill-timed work shall be borne by the Contractor.
- 6.2.4 Should the Contractor wrongfully cause damage to the Work or property of the Owner, or to other Work on the site, the Contractor shall promptly remedy such damage as provided in Subparagraph 10.2.5.

- 6.2.5 Should the Contractor wrongfully cause damage to the work or property of any separate contractor, the Contractor shall upon due notice promptly attempt to settle with such other Contractor by agreement; or otherwise to resolve the dispute. If such separate Contractor sues or initiates a proceeding against the Owner, the Project Manager and/or the Architect on account of any damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor who shall defend such proceedings at his own expense, and if any judgment or award against the Owner, the Project Manager, and/or the Architect arises therefrom the Contractor shall pay or satisfy it and shall reimburse the Owner, the Project Manager and/or the Architect for all attorneys' fees and court or other costs which the Owner, the Project Manager and/or the Architect have incurred.
- 6.2.6 In the event there is more than one contractor engaged on the Project, each such contractor shall be responsible to the other for damages to work, injury to any person or persons, or for any loss, cost, claims, or damages arising out of or in connection with the Work required by this Contract or any loss, cost, expense, or damage caused by the Contractor's neglect or failure to finish or satisfactorily complete his part of the Work within the time prescribed. In all events, the provisions of Paragraph 4.18 shall be applicable.
- 6.2.7 Whenever the Contractor receives items from another Contractor or from the Owner for storage, erection or installation, the Contractor receiving such items shall give receipt for items delivered, and thereafter will be held responsible for care, storage and any necessary replacing of item or items received.
- 6.2.8 The separate contractors shall establish and maintain communication throughout the course of their Work to assure maximum coordination of the Work performed by each. This includes the approvals of the Work of each as required by proper coordination.
- 6.3 OWNER'S RIGHT TO PERFORM DISPUTED WORK
 - 6.3.1 If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up as required by Paragraph 4.15 or for accomplishing coordination or doing required cutting, filling, excavating or patching as required by Paragraph 4.14, the Owner may carry out such Work and charge the cost thereof to the contractors responsible therefor as the Owner shall determine to be just.
- 6.4 EQUIPMENT OR WORK NOT IN CONTRACT (NIC)
 - 6.4.1 When certain items of equipment and other work are indicated as "NIC" (Not In Contract), or to be furnished and installed under other contracts, any requirements for preparation of openings, provision of backing, etc., for receipt of such "NIC" work, information will be furnished upon written request of the Contractor who shall properly form and otherwise prepare his Work in a satisfactory manner to receive such "NIC" work.
- 6.5 CUTTING AND PATCHING UNDER SEPARATE CONTRACTS
 - 6.5.1 Each Contractor shall be responsible for any cutting, fitting and patching that may be required to complete his Work except as otherwise provided in the Contract Documents. The Contractor shall not endanger any human life or portion of the Work performing any cutting, excavating or otherwise altering the Work or any part thereof.

END OF ARTICLE 6

ARTICLE 7

MISCELLANEOUS PROVISIONS

7.1 GOVERNING LAW

7.1.1 Unless otherwise provided in the Contract Documents, the Contract shall be governed by the law of the place where the Project is located.

7.2 SUCCESSORS AND ASSIGNS

7.2.1 The Owner and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. The Contractor shall not assign the Contract or sublet it as a whole without the written consent of the Owner, nor shall the Contractor assign any monies due or to become due to him hereunder, without the previous written consent of the Owner.

7.3 WRITTEN NOTICE

7.3.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who gives the notice.

7.4 CLAIMS FOR DAMAGES

7.4.1 Should the Contractor suffer injury or damage to person or property because of any act or omission of the Owner or of any of his employees, agents or others for whose acts he is legally liable, claim shall be made in writing to the Owner, through the Project Manager, within twenty (20) days after the first observance of such injury or damage; otherwise, the Contractor shall have waived any and all rights he may have against the Owner, the Project Manager, the Architect, or their employees, representatives or agents.

7.4.2 Decisions of the Project Manager shall be rendered as provided for under the Contract Documents, but no decision of the Project Manager shall deprive the Owner or the Contractor of any form of redress which may be available under the laws of the State. Any decision of the Project Manager shall be final and binding on the Contractor in the absence of written notice of protest from the Contractor received by the Owner by registered mail, within fifteen (15) days of the date of the decision of the Project Manager. The Owner shall have sixty (60) days from the date of receipt of a formal protest within which to investigate and make reply.

7.5 PERFORMANCE BOND AND PAYMENT BOND

7.5.1 Prior to the execution of the Contract, the Contractor shall furnish to the Owner, on forms acceptable to the Owner, surety bonds in the amounts and for the purposes provided in this Paragraph 7.5. Each bond must be signed by both the Contractor and the Surety. The current power of attorney for the person who signs for the surety company, indicating the monetary limit of such powers, must be attached to the bonds. The Contractor shall pay all premiums and cost thereof and incidental thereto. Such bonds shall be made payable to the Owner. The surety (or sureties) shall be corporate surety(ies) licensed to transact business in Alaska and acceptable to the Owner. Each bond shall be in an amount equal to the Contract Sum. The effective date of the bond shall be on the execution date of the

contract.

- 7.5.2 The "Performance Bond" shall be so conditioned as to assure the faithful performance by the Contractor of all Work under said Contract, within the time limits prescribed, including any maintenance provisions, in a manner that is satisfactory and acceptable to the Owner; that all materials and workmanship supplied by him will be free from original or developed defects; and that should original or developed defects or failures appear within a period of one year from the date of final acceptance of the Work by the Owner, the Contractor shall, at his own expense, make good such defects and failures and make all replacements and adjustments required, within a reasonable time after being notified by the Owner to do so. This bond shall be maintained by the Contractor in full force and effect during the performance of the Work of the Contractor and for a period of two (2) years after the date of final acceptance of the Work by the Owner.
- 7.5.3 The "Payment Bond" shall be so conditioned as to inure to the benefit of persons furnishing materials for or performing labor upon the Work. This bond shall be maintained by the Contractor in full force and effect until the Work is completed and finally accepted by the Owner, and until all claims for materials, labor and subcontracts are paid.
- 7.5.4 Should any surety or sureties upon said bonds become insufficient or be disqualified from doing business in Alaska, the Contractor shall renew said bond or bonds with good and sufficient sureties, acceptable to the Owner, within ten (10) work days after receiving notice that the surety or sureties are insufficient and/or disqualified. Should any surety or sureties be deemed unsatisfactory at any time by the Owner, notice will be given the Contractor to that effect, and he shall forthwith substitute a new surety or sureties satisfactory to the Owner. No further payment shall be deemed due or will be made under this Contract until the new sureties shall qualify and be accepted by the Owner.
- 7.5.5 In the event of any change order resulting in the performance of additional work in connection with the Work, the amounts of such bonds shall be increased by the cost of such additional work or materials or fixtures to be incorporated into the Project.

7.6 RIGHTS AND REMEDIES

- 7.6.1 The Contractor's duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.
- 7.6.2 Except as may be specifically agreed in writing, the failure of the Owner, the Project Manager, or the Architect to insist in any one or more instances upon the strict performance of any one or more of the provisions of this Contract, or to exercise any right herein contained or provided by law, shall not be construed as a waiver or relinquishment of the performance of such provision or right(s) or of the right to subsequently demand such strict performance or exercise such right(s), and the rights shall continue unchanged and remain in full force and effect.
- 7.6.3 The Contractor agrees that he can be adequately compensated by money damages for any breach of this Contract which may be committed by the Owner and hereby agrees that no default, act, or omission of the Owner, the Project Manager or the Architect, except for unauthorized failure to make payments as required by the Contract Documents, shall constitute a material breach of the Contract entitling the Contractor to cancel or rescind the provisions of this Contract or (unless the Owner shall so consent or direct in writing) to suspend or abandon performance of all or any part of the Work. The Contractor hereby waives any and all rights and remedies to which he might otherwise be or become entitled, save only his right to money damages.

7.7 TESTS

- 7.7.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested, or approved, the Contractor shall give the Architect and Project Manager timely notice, but not less than seventy-two (72) hours, of its readiness so the Architect and the Project Manager may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals except as provided in subparagraph 7.7.2. Notification, coordination and execution of all inspections and tests required by the Contract Documents or by the governing building department shall be the sole responsibility of the Contractor. The Owner shall not be responsible for any damage or delay caused by any Party's inability to make required inspections in the time frame desired by the Contractor.
- 7.7.2 Special Inspection and testing as required in accordance with IBC section 1704 shall be coordinated by the Contractor and the Owner shall bear all costs of Special Inspections or approvals. The Special Inspector, designated by the Owner, shall observe the Work assigned for conformance with the approved design drawings and specifications. The Project Manager may order additional Special Inspections, testing, or approval, as required by the authority having jurisdiction by providing notice to the Contractor. The Contractor shall provide notification and coordination for additional Special Inspections as provided in subparagraph 7.7.1. If such special inspection or testing reveals a failure of the Work to comply (1) with the requirements of the Contract Documents, or (2) with respect to the performance of the Work, with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, the Contractor shall bear all costs thereof, including compensation of the Owner's administrative and legal expenses, and for the Architect's, the Project Manager's, and the Special Inspector's additional services made necessary by such failure.
- 7.7.3 Inspections and Tests required to establish compliance with the Contract Documents, as provided for in the Contract Documents, will be made by a qualified, independent testing agency approved by the Owner. The cost of the services of such agency will be paid by the Contractor, unless otherwise provided in the Contract Documents. When the initial tests indicate non-compliance with the Contract Documents, any subsequent retesting occasioned by non-compliance shall be performed by the same agency and the costs thereof borne by the Contractor. The Contractor shall provide facilities for such access to the Work in order that the agency may properly perform its functions. Representatives of the testing agency shall have access to the Architect, Project Manager, or Owner at all times.
- 7.7.4 Inspections or testing performed exclusively for the Contractor's convenience shall be the sole cost and responsibility of the Contractor.
- 7.7.5 The independent testing agency, employed as specified in the Technical portion of these specifications, shall prepare the test reports, logs, and certificates applicable to the specific inspections and tests and shall deliver, immediately or within forty-eight (48) hours, as applicable, the specified number of copies of same to the designated parties. Other required certificates of inspection, testing or approval shall be secured by the Contractor and delivered by him to the Project Manager and the Architect, in such time as to not delay progress of the Work or final payment therefor.
- 7.7.6 If the Architect, the Project Manager or the Special Inspector is to observe the inspections, tests or approvals required by the Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction or that are required to establish compliance with the Contract Documents, he will do so promptly and, where

practicable, at the normal place of testing.

7.7.7 Unless otherwise stipulated in the Contract Documents, the Contractor shall pay for all utilities required for testing of installed equipment of all of his Work and work of each Subcontractor furnishing equipment. Labor and supervision required for making such tests shall be provided at no additional cost to the Owner.

7.7.8 Owner may provide Quality Assurance testing. Contractor shall provide knowledgeable support personnel and cooperate fully with Owner's designated representative in conducting all Quality Assurance tests. If project fails tests, Contractor shall make all necessary corrections to meet test criteria and pay the Owner for all costs associated with additional tests.

7.8 ALTERNATES

7.8.1 Alternates may be either additive or deductive.

7.8.2 Alternates, if taken, may be taken in any sequence.

7.8.3 The Contractor shall include in his bid, or bid proposal, a bid for all alternates listed in the Bid Form. These alternates shall include the Contractor's net cost of the labor, materials, overhead and profit, and equipment necessary to perform or delete, the Work as outlined by such alternates.

7.9 UNENFORCEABILITY OF ANY PROVISION

7.9.1 If any provision of the Contract is held as a matter of law to be unenforceable, the remainder of the Contract shall be enforceable without such provision.

7.10 NO WAIVER BY OWNER

7.10.1 The failure of the Owner in any one or more instances to insist upon the strict performance of any of the terms of this Contract or to exercise any option herein conferred, shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon such terms or option on any future occasion.

7.11 ASSIGNMENT OF CONTRACT

7.11.1 The Contractor shall not assign the responsibilities of this Contract, either as a whole or in part, nor assign any monies due or to become due to it hereunder, without previous written consent of the Owner.

END OF ARTICLE 7

ARTICLE 8

TIME

8.1 DEFINITIONS

- 8.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Substantial and Final Completion of the Work as defined in Subparagraph 8.1.3, including authorized adjustments thereto.
- 8.1.2 The date of execution of the Contract Agreement between the Owner and Contractor shall be subsequent to School Board Approval and the Contractor's satisfactory submittals to the Owner of the Certificate of Insurance, the Performance Bond and the Payment Bond as noted in the Invitation to Bidders. The Owner will issue a Notice to Proceed no later than ten (10) days from execution of the Owner-Contractor Agreement by both Owner and Contractor. The date of commencement of the Work shall be the date established by the Notice to Proceed. The Owner shall not be responsible for any costs incurred by the Contractor prior to the Notice to Proceed.
- 8.1.3 The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Project Manager and Architect when the Work or a designated portion thereof is sufficiently complete, in accordance with the Contract Documents, so the Owner can fully occupy and utilize the Work or designated portion thereof for the use for which it is intended, with all of the Project's parts and systems cleaned and operable as required by the Contract Documents. Only incidental corrective work and any final cleaning beyond that needed for the Owner's full use may remain for Final Completion.
- 8.1.4 The term day as used in the Contract Documents shall mean calendar day unless otherwise specifically designated. All dates shall mean 12:01 a.m. of the indicated day unless otherwise stipulated.
- 8.1.5 The term "working day" as may be used in the Contract Documents shall mean any day not otherwise defined herein as a non-working day.
- 8.1.6 The term non-working day as may be used in the Contract Documents shall mean Sunday, a recognized holiday, a day on which the Contractor is specifically required to suspend construction operations or a day on which a suspension order is in effect. Recognized holidays shall be: New Year's Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Eve (half day), and Christmas Day. When any of the above days fall on a Saturday, the preceding Friday shall be counted as a holiday. When any of the above days fall on a Sunday, the following Monday shall be counted as a holiday.
- 8.1.7 The term "Beneficial Occupancy" is interchangeable with the term Substantial Completion.

8.2 PROGRESS AND COMPLETION

- 8.2.1 All times stated in the Contract Documents are of the essence of the Contract.
- 8.2.2 The Contractor shall begin the Work on the date of commencement as defined in Subparagraph 8.1.2. He shall carry the Work forward expeditiously with adequate forces and shall achieve Substantial Completion and Final Completion in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof.
- 8.2.3 Attention is directed to the fact that the Work is urgently needed by the Owner and that time is of the essence; for this reason, it shall be agreed that the Contractor shall

substantially complete all Work under the Contract in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof and, that he will complete the contract in all its details for final acceptance as specified after Substantial Completion.

8.3 DELAYS AND EXTENSIONS OF TIME

8.3.1 The Contractor shall be entitled to extensions in the time required for performance of the Work as specifically provided in the Contract. Except as otherwise specifically provided under Paragraph 3.4., 12.1, or 8.3.5, the Contractor shall not be entitled to payment or compensation of any kind from the Owner for direct, indirect, impact or consequential damages, including but not limited to costs of acceleration because of hindrance or delay or loss of labor or equipment efficiency or productivity arising out of any hindrance, interference, obstruction, disruption or delay from any source or cause whatsoever, whether such hindrance, interference, obstruction, disruption or delays be reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable.

8.3.2 The Contract Time may be adjusted only for changes pursuant to Paragraph 12.1, suspension of Work pursuant to Paragraph 3.4. and delays pursuant to Subparagraph 8.3.3.

8.3.3 Types of delay shall be defined as follows:

8.3.3.1 Actions or inactions of the Owner, or events for which the Owner has assumed contractual responsibility, which would independently delay the date of Substantial Completion beyond the current contractually established date of Substantial Completion shall be designated as Compensable delays.

8.3.3.2 Events which are outside the control of, and without the fault or negligence of either the Owner or the Contractor, which would independently delay the date of Substantial Completion beyond the current Contract Completion Date shall be designated as Excusable delays, as follows:

8.3.3.2.1 Labor disputes and strikes (including strikes affecting transportation), that do, directly and critically affect the progress of the Work; however, any extension of Contract Time on account of an individual labor strike shall not exceed the number of days of said strike.

8.3.3.2.2 Acts of God, tornado, fire, hurricane, blizzard, earthquake, typhoon, or flood that damage completed work or stored materials.

8.3.3.2.3 The Contract Time will not be extended due to normal inclement weather. Unless the Contractor can substantiate to the satisfaction of the Owner that the weather actually encountered by the Contractor was unusually severe considering the full term of the Contract Time using a ten (10) year average of accumulated record mean values from climatological data compiled by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration for the locale of the Project and that such alleged substantially greater than normal inclement weather actually delayed the Work or portions thereof which had an effect upon the Contract Time, the Contractor shall not be entitled to an extension of time.

8.3.3.2.4 Acts of the public enemy, acts of the state, federal or local government in its sovereign capacity, and acts of another contractor in the performance of a contract with the Owner relating to the Project.

8.3.3.3 Actions or inactions of the Contractor, or events for which the Contractor has assumed contractual responsibility, which would independently delay the date of Substantial Completion beyond the current Contract Completion Date shall be designated as Non-excusable delays.

8.3.3.4 Concurrent delay is any combination of the above three types of delay occurring on a calendar date, except in cases where the combination consists of two or more instances of the same type of delay occurring on a calendar date.

A delay to the Contractor caused by the acts of another contractor under contract to the Owner will be classified as a compensable delay to the extent said delay meets the requirements of compensable delay as set forth under Subparagraph 8.3.3.1. Also, it is the Owner's belief that the definitions of delay as included in this paragraph comply with all applicable law in the State of Alaska.

8.3.4 Any claim for extension of time shall be made in writing to the Project Manager not more than seven (7) calendar days after commencement of the delay; otherwise it shall be waived. The Contractor shall also provide an estimate of the probable effect of such delay on the progress of the Work. In the case of a continuing delay only one claim is necessary. Any event, action, inaction, or other cause which may give rise to a delay shall constitute a basis for adjustment in:

8.3.4.1 Contract Time, only if it can be demonstrated that the date of Substantial Completion will be delayed beyond the current Contract Completion Date and that the delay is classified as only a Compensable, Excusable, or Concurrent Delay. The Contract Time shall be adjusted by Change Order pursuant to the requirements of Paragraph 8.3 and Division 1, Section 01311; or

8.3.4.2 Contract Amount, only if it can be demonstrated that the Contractor's time-related costs to complete the Work will be increased and the delay is classified as only a Compensable Delay. The Contract Sum shall be adjusted by Change Order pursuant to the requirements of Subparagraphs 8.3 and 12.3.

8.3.5 All time limits stated in the Contract Documents are of the essence of this Contract. The failure of the Contractor to complete the Work in conformance with the Contract shall result in damages suffered by the Owner due to delays in completion of the Work.

8.3.5.1 If the Contractor fails to substantially complete the Work in conformance with the Contract Documents and the Owner nevertheless permits the Contractor to continue performance of the Work, such permission shall neither modify nor waive the Owner's right to assess and collect, and the Contractor's obligation to pay liquidated damages.

8.3.5.2 The Owner shall be entitled to claim against the Contractor for any liquidated damages incurred. The Owner cannot anticipate at this time what liquidated damages may occur or what the per diem cost of these damages might be. Determination of liquidated damage details will be a matter of proof should the issue arise.

- 8.3.5.3 The Owner shall recover said liquidated damages by deducting the amount thereof from any monies due or that may become due the Contractor. In the event the remaining balance due the Contractor is insufficient to cover the full amount of assessed damages, then the Contractor or his Surety shall pay the amount due and the Owner shall be entitled to any and all rights and remedies available to it in law or equity to recover same.

8.4 RESPONSIBILITY FOR COMPLETION

- 8.4.1 The Contractor shall furnish such manpower, materials, facilities and equipment and shall work such hours, including night shifts, overtime operations and Sundays and holidays, as may be necessary to insure the progress and completion of the Work in accordance with the accepted and currently updated progress schedule. If Work actually in place falls behind the currently updated and accepted progress schedule and it becomes apparent from the current schedule that the Work will not be completed in accordance with the Contract Time, the Contractor agrees that he will, as necessary, take some or all of the following actions at no additional cost to the Owner, as required to substantially eliminate the schedule slippage deficiency:
- 8.4.1.1 Increase manpower in such quantities and crafts as will substantially eliminate in the opinion of the Project Manager the schedule slippage deficiency;
 - 8.4.1.2 Increase the number of working hours per shift, shifts per working day, working days per week, or the amount of equipment, or any combination of the foregoing sufficiently to substantially eliminate, in the opinion of the Project Manager the schedule slippage deficiency; and,
 - 8.4.1.3 Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- 8.4.2 The Project Manager may require the Contractor to submit a recovery schedule in accordance with Section 01311 of the Specifications, demonstrating his program and proposed plan to make up the slippage in scheduled progress and to ensure completion of the Work in accordance with the requirements of the Contract. If the Project Manager finds the proposed plan not acceptable, he may require the Contractor to submit a new plan. If the actions taken by the Contractor or the second plan proposed are not satisfactory, the Project Manager may require the Contractor to take any of the actions set forth in this Paragraph 8.4 without additional cost to the Owner, to make up the slippage in scheduled progress.
- 8.4.3 Failure of the Contractor to substantially comply with the requirements of this Paragraph 8.4 may be considered grounds for a determination by the Owner, pursuant to Clause 14.1, that the Contractor is failing to prosecute the Work with sufficient diligence to ensure its in accordance with the Project Milestone Dates set forth under Section 00200 hereof.

END OF ARTICLE 8

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

9.1.1 The Contract Sum is stated in the Owner-Contractor Agreement and, including authorized adjustments thereto, is the total amount payable by the Owner to the Contractor for the performance of the Work under the Contract Documents.

9.2 SCHEDULE OF VALUES

9.2.1 Before the first Application for Payment, the Contractor shall submit to the Owner, through the Project Manager, a schedule of values allocated to the various portions of the Work, as set forth in Division 1, Section 01370 of the General Requirements entitled "Schedule of Values" and supported by such data to substantiate its accuracy as the Architect, Project Manager and the Owner may require. This schedule, unless objected to by the Architect, Owner, or Project Manager, may be used as a basis for the Contractor's Applications for Payment except as otherwise noted under Division 1, Section 01311. The Schedule of Values shall be prepared in such a manner that each major item of work and each subcontracted item of work is shown as a single item on the Application and Certificate of Payment.

9.3 APPLICATIONS FOR PAYMENT

9.3.1 Prior to the date for each progress payment established in the Contract Documents, the Contractor, in accordance with Division 1, Section 01311 of the General Requirements entitled "Project Schedule," shall submit to the Project Manager an itemized Application for Payment, notarized if required, supported by such data substantiating the Contractor's right to payment as the Project Manager and the Architect may require, and reflecting retainage, if any, as provided elsewhere in the Contract Documents. The form of Application for Payment shall be Anchorage School District Forms 100, 100A, 100B and 100C and the computer-produced Cost Report updated in accordance with Division 1, Section 01311.

9.3.2 If the Project Manager finds that satisfactory progress is not being made, he may require retainage of up to 10% of the total amount earned on all subsequent progress payments. This retainage may be released at such time as the Project Manager finds that satisfactory progress is being made.

9.3.3 Payments may be authorized by the Project Manager at his discretion, on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the site by the Contractor. Payments for materials or equipment stored on the site shall only be considered upon submission by the Contractor of satisfactory evidence that he has acquired title to such material, that it will be utilized on the Work under this Contract and that it is satisfactorily stored, protected, and insured or that other procedures satisfactory to the Project Manager that will protect the Owner's interests have been taken.

9.3.4 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon the receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article 9 as "liens"; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise

imposed by the Contractor or such other person.

9.4 APPROVAL OF PAY APPLICATION

- 9.4.1 The Project Manager will, after receipt of the Contractor's Application for Payment, and within the time set forth in Division 1, Section 01311 of the General Requirements entitled "Project Schedule," either approve the Application for its full amount or notify the Contractor in writing of his reasons for withholding approval, in whole or in part, as provided in Subparagraph 9.6.1.
- 9.4.2 The submission and acceptance of the Contractor's Preliminary and Detailed Progress Schedules and monthly updates thereof as required by Division 1, Section 01311 of the General Requirements entitled "Project Schedule," shall be an integral part and basic element of the application upon which progress payments shall be made. If in the judgment of the Project Manager the Contractor fails or refuses to provide information required to accomplish a complete Project Schedule Update or revision thereto as specified under Division 1, Section 01311 of the General Requirements, the Contractor shall be deemed to have not provided the information necessary to enable the Project Manager and the Architect to properly evaluate the Contractor's progress, and shall not be entitled to progress payments until it has furnished the information necessary for a complete Project Schedule Update or revision thereto as specified herein to the satisfaction of the Project Manager.
- 9.4.3 The signing of an Application for Payment will constitute a representation by the Project Manager and the Architect, based on their observations at the site and the data comprising the Application for Payment, that the Work has progressed to the point indicated; that, to the best of their knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in their Certificate); and that the Contractor is entitled to payment in the amount certified. However, by approving an Application for Payment, the Project Manager and the Architect shall not thereby be deemed to represent that either has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work or that either has reviewed the construction means, methods, techniques, sequences or procedures, or that either has made an examination to ascertain how or for what purpose the Contractor has used the monies previously paid on account of the Contract Sum.

9.5 PROGRESS PAYMENTS

- 9.5.1 After an Application for Payment has been approved, the Owner shall make payment within thirty (30) calendar days.
- 9.5.2 The Contractor shall promptly pay each Subcontractor (including suppliers, laborers, and material-men) performing labor or furnishing material for the Work, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which said Subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such Subcontractor's Work. The Contractor shall, by an appropriate agreement with each Subcontractor, also require each Subcontractor to make payments to his Sub-subcontractors in similar manner.
- 9.5.3 The Owner may, on request and at his discretion, furnish to any Subcontractor, Sub-subcontractor, or Material Supplier and Vendor, if practicable information regarding the

percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the Project Manager on account of Work done by such Subcontractor, Sub-subcontractor, or Material Supplier or Vendor.

- 9.5.4 Neither the Owner, the Project Manager, nor the Architect shall have any obligation to pay or to see to the payment of any monies to any Subcontractor except as may otherwise be required by law.
- 9.5.5 No approval for a progress payment, nor any progress payment, nor any partial or entire use of occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.
- 9.5.6 The Contractor agrees to keep the Work and the site(s) on which Work is to be performed free and clear of all liens and claims of liens on materials furnished pursuant to the Contract Documents. Contractor hereby waives any right it may have in connection with the Work to file any liens, mechanics or otherwise. Notwithstanding anything to the contrary contained in the Contract Documents, if any such lien is filed or there is any reason to believe that any lien may be filed at any time during the progress of the Work or within the duration of this Contract, the Owner may refuse to make any payment otherwise due to Contractor or withhold from any payment due the Contractor a sum sufficient in the opinion of the Owner to pay all obligations and expenses necessary to satisfy such lien or claim and completely indemnify the Owner against any such lien or claim unless and until Contractor shall thereof, if any, has been satisfied, discharged and released of record or that the Contractor has caused such lien to be released or record if and as provided by law pending the resolution of any dispute between Contractor and the person filing such lien; and if such evidence is not furnished by Contractor to the Owner within a period of five (5) days after demand to do so, the Owner may discharge such indebtedness and deduct the amount required therefore, together with any and all losses, costs, damages and attorney's fees suffered or incurred by the Owner from any sum payable to Contractor under the Contract Documents. Final payment to Contractor may be withheld until the Work and the site(s) on which the Work is to be performed are free and clear of any and all liens for rights thereto arising because of Work performed or materials furnished under the Contract Documents. This Subparagraph 9.5.6 shall be specifically included in all subcontracts and purchase orders entered into by Contractor.
- 9.5.7 No reference to a claim or claims of lien or to the Owner's right to withhold payments to the Contractor or to discharge the Contractor's debts to Subcontractors, in Subparagraph 9.5.6, or elsewhere in the Contract Documents, shall be interpreted as a waiver of the Owner's right to exemption pursuant to AS 09.38.015(c) or any requirements with regard to the filing of claims of lien as set forth in AS 34.35.

9.6 PAYMENTS WITHHELD

- 9.6.1 The Architect and the Project Manager may decline to approve an Application for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in their opinion they are unable to make representations to the Owner as provided in Subparagraph 9.4.3. If the Project Manager and the Architect are unable to make representations to the Owner as provided in Subparagraph 9.4.3 and to certify payment in the amount of the Application, they will notify the Contractor as provided in Subparagraph 9.4.1.

If the Contractor, Project Manager and the Architect cannot agree on a revised amount, the Project Manager will promptly approve the Application for Payment for the amount for which he is able to make such representations to the Owner. The Project Manager may also decline to certify payment or, because of subsequently discovered evidence or

subsequent observations, he may nullify the whole or any part of any approval of an Application for Payment previously issued to such extent as may be necessary in his opinion to protect the Owner from loss because of:

- 9.6.1.1 Defective work not remedied,
- 9.6.1.2 Third-party claims filed or reasonable evidence indicating probable filing of such claims,
- 9.6.1.3 Failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment,
- 9.6.1.4 Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum,
- 9.6.1.5 Damage to the Owner or another contractor,
- 9.6.1.6 Reasonable evidence that the Work will not be completed within the Contract Time,
- 9.6.1.7 Failure or refusal of the Contractor to carry out the Work in accordance with the Contract Documents, including scheduling, project management, or coordination requirements,
- 9.6.1.8 Liens filed for any portion of the Work, or
- 9.6.1.9 Failure or refusal of the Contractor to fully comply with Division 1, Section 01311 of the General Requirements entitled "Schedules and Reports".

9.6.2 When the above grounds in Subparagraph 9.6.1 are removed, payment shall be made for amounts withheld because of them.

9.7 FAILURE OF PAYMENT

9.7.1 If the Owner does not pay the Contractor within seven (7) days after the date established in the Contract Documents any amount certified by the Architect and the Project Manager, then the Contractor may, upon seven (7) additional days' written notice to the Owner and the Architect, stop the Work until payment of the amount not in dispute has been received. The Contractor shall not refuse or fail to diligently proceed with the Work pending the resolution of any amount(s) in dispute unless agreed to by the Owner.

9.8 SUBSTANTIAL COMPLETION

9.8.1 When the Contractor considers that the Work, or a designated portion thereof which is acceptable to the Owner, is substantially complete as defined in Subparagraph 8.1.3, the Contractor shall prepare for submission to the Project Manager a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Architect and the Project Manager on the basis of an inspection jointly determine that the Work or designated portion thereof is substantially complete, the Architect will then prepare a Certificate of Substantial Completion which shall establish the Date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, correction of punchlist items and damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Warranties required by the Contract Documents shall

commence on the Date of Substantial Completion of the work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate.

- 9.8.2 Upon Substantial Completion of the Work or designated portion thereof and upon application by the Contractor and certification by the Project Manager and the Architect, the Owner shall make payment, reflecting adjustment in retainage, if any, for such Work or portion thereof, as provided in the Contract Documents.
- 9.8.3 The acceptance of Substantial Completion payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the Application for Payment for Substantial Completion, and except for the retainage sums due at final acceptance if any.

9.9 FINAL COMPLETION AND FINAL PAYMENT

- 9.9.1 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect and the Project Manager will promptly make such inspection and, when they find the Work acceptable under the Contract Documents and the Contract fully performed, they will jointly issue a final Certificate for Payment stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, as noted in said final Certificate, is due and payable. The final Certificate for Payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in Subparagraph 9.8.2 have been fulfilled.
- 9.9.2 Neither the final payment nor the remaining retained percentage shall become due until the Work is free and clear of any and all liens and the Contractor submits to the Owner (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of surety, if any, to final payment and (3), if required by the Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Project Manager. If any Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify him against any loss. If any such lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such lien or claim, including all costs and reasonable attorney's fees. The Owner may withhold from the final payment any sum that the Owner has reason to believe may be needed to satisfy any lien, claim or threat of lien arising from the Work. The Owner may deduct from the final payment an amount equal to any costs, expenses and attorneys' fees incurred by the Owner in removing or discharging any liens arising from the Work.
- 9.9.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor, or by the issuance of change orders affecting final completion, and the Owner so confirms, the Owner shall, upon application by the Contractor and certification by the Project Manager and the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than the retainage stipulated in the Contract Documents, and if bonds have been furnished as provided in Paragraph 7.5, the written consent of the surety to the

payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Project Manager prior to certification of such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

- 9.9.4 The making of final payment shall constitute a waiver of all claims by the Owner against the Contractor except those arising from:
 - 9.9.4.1 Unsettled liens, and claims against the Owner, the Project Manager, or the Architect, or their employees, agents, or representatives,
 - 9.9.4.2 Faulty or defective Work appearing after Substantial Completion,
 - 9.9.4.3 Failure of the Work to comply with the requirements of the Contract Documents,
 - 9.9.4.4 Terms of any warranties contained in or required by the Contract Documents,
 - 9.9.4.5 Liquidated damages due the Owner for the Contractor's delay in completion, or
 - 9.9.4.6 Damages incurred by the Owner resulting from lawsuits brought against the Owner, the Project Manager, the Architect, or their agents, employees or representatives because of failures or actions on the part of the Contractor, his Subcontractors, Sub-subcontractors, Material Suppliers and Vendors, or any of their employees, agents or representatives.
- 9.9.5 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment.
- 9.9.6 Final Completion includes, but is not limited to, the Contractor obtaining an unconditional Certificate of Occupancy from the governing building official.
- 9.10 OWNER'S RIGHT TO OCCUPY INCOMPLETE WORK
 - 9.10.1 Should the Project, or any portion thereof, be incomplete for Beneficial Occupancy or Final Completion at the scheduled date or dates, the Owner shall have the right to occupy any portion of the Project. In such an event, the Contractor shall not be entitled to any extra compensation on account of said occupancy by the Owner or by the Owner's normal full use of the Project, nor shall the Contractor interfere in any way with said normal full use of the Project. Further, in such an event, the Contractor shall not be entitled to any extra compensation on account of the Owner's occupancy and use of the Project, nor shall the Contractor be relieved of any responsibilities of the Contract including the required times of completion. Such occupancy by the Owner would not, in itself, constitute Beneficial Occupancy nor Final Completion.
 - 9.10.2 If the Owner exercises his rights under the foregoing and occupies the full project, then there shall be no liquidated damages due to delay on account of failure on the Contractor's part to provide Beneficial Occupancy from that date forward. This provision does not affect, however, any damages due to delay that would be assessed for any period of time between the scheduled date of Beneficial Occupancy and the date of any such actual occupancy. Further, this provision would have no effect on actual damages assessed on account of late Final Completion.

9.11 RETENTION AND INSPECTION OF RECORDS

9.11.1 Inspection.

The Anchorage School District, or any of its duty authorized representatives, shall have the right to examine all project records and documents, including without limitation, all books, correspondence, reports, analyses, instructions drawings, receipts, vouchers, memoranda, and all financial and accounting books, records, and data and all other documents of both the Contractor and the Contractors, Subcontractors and any Sub-subcontractors which are directly pertinent to this specific Contract for the purpose of making an audit, examination, reproduction, excerpts, or transcriptions. All required records shall be retained by the Contractor and its first tier Subcontractors for three (3) years after the Owner makes final payments and all other pending matters are closed.

9.11.2 Retention and Maintenance.

The Contractor shall keep and maintain in safe condition full and accurate records of all costs incurred and items billed and all other project records and documents relating to performance, communications, and correspondence in connection with the performance of the Work under this Contract, which records and documents shall be open to review, examination or audit by the Owner or its authorized representatives during performance of the Work and until three (3) years after Final Payment and all other pending matters are closed.

9.11.3 Subcontractor Records.

The Contractor shall make it a condition of all subcontracts and sub-subcontracts relating to the Work under this Contract that any and all Subcontractors and sub-subcontractors will keep accurate records of costs incurred and items billed in connection with their work and that such records shall be open to review, examination, reproduction or audit by the Owner or its authorized representatives during performance of the Work and until three (3) years after Final Payment under the subcontract and all other pending matters are closed.

9.11.4 Availability.

The Contractor shall make available at its business office upon request at all reasonable times the materials described in this Article including materials of both the Contractor and its first tier Subcontractors, for review, examination reproduction or audit for a period of three (3) years after Final Payment under this Contract and all other pending matters are closed.

9.11.5 Termination.

If this Contract is completely or partially terminated, the records relating to the Work terminated shall be made available for three (3) years after any resulting final termination settlement.

9.11.6 Claims and Appeals.

Records pertaining to any settlement, mediation, arbitration, litigation or appeals of claim submitted pursuant to Paragraphs 12.4 or 12.5 or otherwise arising from or relating to the performance of Work under this Contract shall be made available until such settlement, mediation, arbitration, litigation, or appeals are finally concluded. Such documents or records shall be made available to the Anchorage School District or its duty authorized representatives within thirty (30) days of the Anchorage School District's request.

9.11.7 Subcontracts.

The Contractor shall include the provisions of this Article in all first tier Subcontracts so as to be binding on all first tier Subcontractors.

9.11.8 Cost or Pricing Data.

If the Contractor has submitted cost or pricing data in connection with the pricing of any change order or modification to this Contract - unless the pricing was based on—

- 9.11.8.1 adequate price competition, or
- 9.11.8.2 established catalog or market price of commercial items sold in substantial quantities to the general public; or
- 9.11.8.3 prices set by law or regulation -

the Anchorage School District or a representative who is an employee of the Anchorage School District, shall have the right to examine and audit all books, records, documents, and other data of the Contractor, including computations and projections, related to negotiating, pricing, or performing the change order or modification, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data.

END OF ARTICLE 9

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 The Owner, the Project Manager, the Architect, or their agents, employees or representatives are not responsible for the means, methods, techniques, sequences or procedures utilized by the Contractor, or for safety precautions and programs in accordance with the Work. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:

10.2.1.1 All employees on the Work and all other persons who may be affected thereby;

10.2.1.2 All the Work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor or any of his Subcontractors or Sub-subcontractors; and

10.2.1.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

10.2.2 The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

10.2.2.1 The Contractor shall contact the State Historic Preservation Office (907-269-8700) immediately, should cultural or paleontological resources be discovered as a result of performing the Work.

10.2.3 The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.

10.2.4 When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

10.2.5 The Contractor shall promptly remedy all damage or loss to any property referred to in paragraphs 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, any Subcontractor, any Sub-subcontractor, any Material Supplier or Vendor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under paragraphs 10.2.1.2 and 10.2.1.3, except damage or loss attributable to the acts or omissions of the Owner, Project Manager or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to his obligations under Paragraph 4.18.

- 10.2.6 The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner through the Project Manager.
- 10.2.7 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.
- 10.2.8 Following the Notice to Proceed, the Contractor is required to obtain facility keys and the security system access code from ASD Operations Department and obtain the facility keys by contacting the Project Manager.
- 10.2.8.1 A unique security code will be assigned to the Contractor. The ASD Operations office, 1301 Labar, will assign the code and provide access training.
- 10.2.8.2 The Contractor's signature on the key receipt acknowledges liability for the Owner's loss or damage due to unauthorized access with the facility key(s) and/or access code issued to the Contractor. The Contractor's Superintendent is solely responsible for the opening and closing of the facility.
- 10.2.8.3 Lost or stolen key(s) issued to the Contractor are to be reported immediately to the Project Manager. A written report shall be required for each incident.
- 10.2.8.4 If a FOB is issued, instead of keys, and is lost or stolen, the Contractor is required to immediately report the loss to the Project Manager. Notice is to be completed, in writing, within 12 hours or there will be a \$500 fine.
- 10.2.8.5 Upon completion of the Project and prior to final payment, the Contractor will return all key(s) to the Project Manager. A maximum per facility charge of up to \$10,000 may apply to any key not returned to the Project Manager.
- 10.2.8.6 Do not put any identifying tags or markers on the keys that would identify them as ASD building keys.

10.3 EMERGENCIES

- 10.3.1 In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 8 for Time, and Article 12 for Changes in the Work.

END OF ARTICLE 10

ARTICLE 11

INSURANCE

11.1 GENERAL

11.1.1 Before signing this Contract, or commencing work on any project or allowing any Subcontractor to commence work, the Contractor shall obtain all insurance required under this section. The Contractor shall maintain this insurance until Final Acceptance. Proof of Insurance will be required prior to performing work under the warranty. The Contractor shall file with Owner as verification of insurance, an original signed certificate of insurance showing the type and amounts of insurance, the policy number, and expiration date. The Contractor shall provide copies of each insurance policy if requested by the Owner. The Contractor shall purchase insurance from companies reasonably acceptable to the Owner and authorized to do business in the State of Alaska, possessing a Best's policyholder's rating of A- or better and a financial rating of not less than VII.

11.2 WORKERS' COMPENSATION INSURANCE

11.2.1 The Contractor shall purchase and maintain during the life of this Contract, Workers' Compensation Insurance for all employees who will work on this project and if any work is sublet, the Contractor shall require the Subcontractor to provide similar Workers' Compensation Insurance for employees. Such workers' compensation insurance shall meet the statutory requirements of the State of Alaska.

11.3 PUBLIC AND EMPLOYER LIABILITY INSURANCE

11.3.1 The Contractor and his Subcontractors, if any, shall purchase and maintain such Public and Employer Liability Insurance as will protect the Contractor against loss which may result from claims for damages from operations under this Contract, whether such operations be those of the Contractor, a Subcontractor, or any person directly or indirectly employed by them. Such liability insurance shall have a scope of coverage at least as broad as the current ISO form # CG 0001 (occurrence version) for General Liability and the current ISO form # CA 0001 for Automobile Liability, and in minimum limits specified in Paragraph 11.3.2.

11.3.2 Public and Employer Liability Insurance Requirements

11.3.2.1 Commercial General Liability

Combined Single Limit \$1,000,000
Annual Aggregate \$2,000,000

11.3.2.2 Comprehensive Auto Liability

Including all owned, hired and non-owned vehicles.
Combined Single Limit \$1,000,000 each accident

11.3.2.3 Employer's Liability Insurance
\$1,000,000 limit

11.3.3 Umbrella Liability

- 11.3.3.1 The Contractor shall maintain an umbrella liability policy according to the following:

Projects < \$10 million construction cost – \$5,000,000 per occurrence and annual aggregate.

Projects > \$10 million construction cost – \$10,000,000 per occurrence and annual aggregate.

This requirement does not apply to Subcontractors.

- 11.3.3.2 Umbrella liability insurance shall be maintained in effect until final acceptance by the Owner of the completed construction, and for products liability and completed operations liability, a minimum of two years thereafter.

11.4 BUILDERS RISK INSURANCE

- 11.4.1 The Contractor shall purchase and maintain an all risk Builder's Risk policy on all construction projects. The Builders Risk coverage shall be in an amount equal to the initial contract, plus any contract modifications, and the cost of materials supplied or installed by others. Perils insured must be all physical loss and will include earthquake, flood, testing and startup, resultant damage from errors in design, plans or specifications, and transit and offsite storage.

- 11.4.2 A loss insured under Subparagraph 11.4.1 shall be adjusted by the Insurer, or by the Contractor as Fiduciary, and made payable to the Contractor as Fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Subparagraph 11.4.5. The Contractor shall pay each Subcontractor a just share of any insurance monies received by the Contractor, and by appropriate agreement, written where legally required for validity, shall require each Subcontractor to make payments to his Sub-subcontractors in similar manner.

- 11.4.3 The Owner and Contractor shall waive all rights against each other for damages caused by fire or other perils to the extent covered by insurance obtained pursuant to this Paragraph 11.4 or any other property insurance applicable to the Work, except such rights as they may have to the proceeds of such insurance held by the Contractor as Fiduciary. The Contractor shall require, by appropriate agreement, written where legally required for validity, similar waivers in favor of the Owner and the Contractor by Subcontractors and Sub-subcontractors. With respect to the waiver of rights of recovery, the term Owner shall be deemed to include, to the extent covered by property insurance applicable thereto, his consultants, employees, agents and representatives, including the Project Manager. The Contractor waives as against any separate Contractor described in Article 6 all rights for damages caused by fire or other perils in the same manner as is provided above as against the Owner. The Owner shall require, by appropriate agreement, written where legally required for validity, similar waivers in favor of the Contractor by any separate Contractor and his Subcontractors and Sub-subcontractors.

- 11.4.4 If required in writing by any party in interest, the Contractor as Fiduciary shall, upon the occurrence of an insured loss, give bond for the proper performance of his duties. He shall deposit in a separate account any money so received, and he shall distribute it in accordance with a court order or award. If after such loss no other special agreement is made, replacement of damaged work shall be covered by an appropriate Change Order.

11.4.5 The Contractor as Fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within five (5) days after the occurrence of loss to the Owner's exercise of this power, and if such objection is made, the matter shall be decided by a court of competent jurisdiction or as parties in interest otherwise agree. The Contractor as Fiduciary shall, in that case, make settlement with the insurers accordingly.

11.4.6 If the Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion thereof, such occupancy shall not commence prior to a time mutually agreed to by the Owner and Contractor and to which the insurance company or companies providing the property insurance have consented by endorsement of the policy or policies. This insurance shall not be canceled or lapsed on account of such partial occupancy. Consent of the Contractor and of the insurance company or companies to such occupancy or use shall not be unreasonably withheld.

11.5 CERTIFICATE OF INSURANCE REQUIREMENTS

11.5.1 Each insurance policy required in this section will be evidenced by a certificate of insurance which contains the following:

11.5.1.1 Notice of cancellation to the Anchorage School District in accordance with Alaska Statutes 21.36.220 and .260.

11.5.1.2 Contract number.

11.5.1.3 Project location.

11.5.1.4 Waiver of Subrogation. All policies, except where prohibited, will include a Waiver of Subrogation in favor of the District.

11.5.1.5 Additional Insured. All policies except Workers Compensation and professional liability will note the District as an additional insured.

11.6 OWNER'S RIGHT TO INSURE

11.6.1 In the event Contractor neglects, refuses, or fails to provide the insurance required under the Contract Documents, or if such insurance is canceled for any reason, the Owner shall have the right, but not the duty to procure the same, and the costs thereof shall be deducted from monies then due or thereafter to become due the Contractor.

11.7 ADDITIONAL INSURANCE

11.7.1 If not covered by the above insurance, the Contractor must obtain additional Insurance for items stored off-site or in transit. Payments for materials stored off-site will not be made unless Contractor provides documentation of valid insurance coverage for same.

11.8 ASBESTOS ABATEMENT SUBCONTRACTOR'S CERTIFICATE OF INSURANCE

11.8.1 After the Intent to Award Notification, the low bidder shall submit an insurance binder of insurance certificate provided by the proposed asbestos abatement subcontractor's insurance company stating that upon execution of the Contract the types and amount of insurance required elsewhere in these specifications will immediately become effective.

The asbestos abatement subcontractor is required to carry a minimum of \$1,000,000 of General Public Liability Insurance with no exclusion for asbestos abatement.

11.8.2 Comprehensive General Liability Minimum Limits

Bodily Injury and Property Damage \$2,000,000 per occurrence
Premises Operations
Independent Contractors
Products - Completed Operations
Contractual Liability
Broad Form Property Damage - Lloyds Form
Explosion, Collapse, and Underground
Personal Injury

11.8.3 Comprehensive Auto Liability

Including all owned, hired, and non-owned vehicles
Combined single limit per accident \$1,000,000

END OF ARTICLE 11

ARTICLE 12

CHANGES IN THE WORK AND CONTRACT SUM AND TIME

12.1 CHANGES IN THE WORK

12.1.1 The Owner may, at any time, without notice to the sureties, make any change in the Work within the general scope of the Contract, including, but not limited to changes:

12.1.1.1 In the Specifications or Drawings;

12.1.1.2 In the method or manner of performance of the Work;

12.1.1.3 In the Owner-furnished facilities, equipment, materials, services or site; or

12.1.1.4 Directing acceleration in the performance of the Work for reasons other than delays caused by the Contractor.

12.1.2 All such changes in the Work shall be performed under the applicable conditions of the Contract Documents and shall be authorized in one of the following manners:

12.1.2.1 Field Directive. The Project Manager may issue a written Field Directive to the Contractor that directs a change in the Work. If the Contractor believes that the requested change will increase the Contract Time or Contract Sum, he must notify the Project Manager in writing prior to implementing the change.

12.1.2.2 Information Bulletin. The Architect may issue an Information Bulletin to the Contractor that clarifies or modifies the plans or specifications. If the Contractor believes that the clarification or modification of plans or specifications will increase the Contract Time or Contract Sum, he must notify the Project Manager in writing prior to implementing the change.

12.1.2.3 Request for Information (RFI). The Contractor may submit a RFI to the Project Manager or Architect using the ASD Procore Construction Management Program to request clarification of plans or specifications or to point out areas of apparent conflict or other concerns relating to the Work. The response to the RFI by the Architect or Project Manager may clarify or modify the plans or specifications. If the Contractor believes that the clarification or modification of plans or specifications will increase the Contract Time or Contract Sum, he must notify the Project Manager in writing prior to implementing the change.

12.1.2.4 Request for Proposal (RFP). The Owner may issue an RFP to the Contractor that directs a change in the Work and requests the Contractor's evaluation of the impact of the change on Contract Time or Contract Sum. If the Contractor believes that the Work required by the RFP will increase the Contract Time or Contract Sum, he must notify the Project Manager in writing prior to implementing the changes.

12.1.3 Except as provided in Subparagraph 12.1.2, no order, statement or conduct of the Owner, Project Manager or Architect shall be treated as a change or entitle the Contractor to an equitable adjustment hereunder. No oral agreement of any kind shall be construed as a Change Order.

12.2 AMENDING CONTRACT SUM OR TIME

- 12.2.1 If any change under Paragraph 12.1 causes an increase or decrease in the Contractor's cost or the time required for the performance of any part of the Work under the Contract, including Work not affected directly by the change, an equitable adjustment shall be processed and approved following the provisions of Division 1, Section 01311, Project Schedule for any adjustment to time. Adjustments to Contract Sum shall be determined in one or more of the following ways:
- 12.2.1.1 By mutual acceptance of a lump sum price properly itemized in accordance with Subparagraph 12.2.2 and supported by sufficient data to permit evaluation;
 - 12.2.1.2 In the event that unit prices are included in the bid and accepted by the Owner, payment for the Work performed shall be at the unit price amount for each item of Work accepted by the Owner and conforming to the contract requirements. Such prices shall be additive and deductive and include all costs necessary to complete the Work, inclusive of overhead costs and profit.
 - 12.2.1.3 If prior to the commencement of the Work the Contractor has not provided a lump sum price, or the Contractor and the Owner have not agreed on a lump sum price as described in Subparagraph 12.2.1.1 above, the price shall be established in one of the following ways, as determined by the Project Manager;
 - 1. on a lump sum basis following completion of the Work. The lump sum price shall be properly itemized in accordance with Subparagraph 12.2.2. and supported by sufficient data to permit evaluation;
 - 2. on a time and materials basis, with or without a maximum not-to-exceed price, at the discretion of the Project Manager. Costs will be accumulated on a time and materials basis as described in Subparagraph 12.2.3 and presented daily (the day after the Work is performed) for approval by the Owner on the forms provided by the Owner. The daily report will be signed by the Contractor and the Owner.
- 12.2.2 For Work proceeding on a lump sum basis. In accordance with Subparagraph 12.2.1.1 or 12.2.1.3.1, the Contractor shall provide a detailed breakdown of the costs as described herein and submit the costs and substantiating data in a proposal to the Owner:
- 12.2.2.1 Direct Costs: Direct costs shall be limited to the following: cost of materials, including sales tax and cost of delivery to the project; cost of labor (from apprentice level up through and including the general foreman classification) comprising of the base wage plus fringe benefits, including burden (Social Security, Worker's Compensation, and Unemployment Insurance, etc.); rental rate including fuel and maintenance for any power tools valued at over \$3,000 and equipment as described below, under "Equipment Rates;" bond premiums and additional cost of Builder's Risk Insurance, at rates equal to the amount billed for the base contract or the actual rate as supported by an invoice.
 - 12.2.2.1.1 Equipment Rates: For any machinery or special equipment (other than small tools) which has been authorized by the Project Manager, the Contractor shall receive the rental rates in the current edition and appropriate volume of the "Rental Rate Blue Book for Construction Equipment," published by K-III Directory Corp., 10 Lake Drive, Highstown, NJ 08520-5397.

Hourly rental rates shall be determined as follows. The established hourly rental rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 176, and multiplied by the area adjustment factor, plus the estimated hourly operating costs. The adjusted monthly rate is that resulting from application of the rate adjustment formula in order to eliminate replacement cost allowances in machine depreciation and contingency cost allowances. Attachments shall not be included unless required for the time and materials Work. For equipment not listed in the Blue Book, the Contractor shall receive a rental rate as agreed upon before such Work is begun. If agreement cannot be reached, the Owner reserves the right to establish a rate based on similar equipment in the Blue Book or prevailing commercial rates in the area. These rates shall apply for equipment used during the Contractor's regular shift of 10 hours per day. Where the equipment is used more than 10 hours per day, either on the Contractor's normal Work or on time and materials, and either on single or multiple shifts, an overtime rate, computed as follows, shall apply: The hourly overtime rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 352, and multiplied by the area adjustment factor, plus the estimated hourly operating cost.

- 12.2.2.1.2 Equipment which must be rented or leased specifically for Work required under this section shall be authorized in writing by the Project Manager.
- 12.2.2.1.3 When it is necessary to obtain equipment from sources beyond the project limits exclusively for time and materials Work, the actual cost of transferring the equipment to the site of the Work and return will be allowed as an additional item of expense. Where the move is made by common carrier, the move-in allowance will be limited to the amount of the freight bill or invoice. If the Contractor hauls the equipment with his own forces, the allowance will be limited to the rental rate for the hauling unit plus operator wages. In the event that the equipment is transferred under its own power, the moving allowance will be limited to one-half of the normal hourly rental rate plus operator's wages. In the event that the move-out is to a different location, payment will in no instance exceed the amount of the move-in. Move-in allowance shall not be made for equipment brought to the project for time and materials Work which is subsequently retained on the project and utilized for completion of contract items, camp maintenance, or related Work.
- 12.2.2.1.4 Equipment ordered to be on stand-by basis shall be paid for at the stand-by rental rate for the number of hours in the Contractor's normal Work shift, but not to exceed 8 hours per day. The stand-by rental rate shall be computed as follows:

The hourly stand-by rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 352, all multiplied by the

area adjustment factor.

Time will be recorded to the nearest one-half hour for purposes of computing compensation to the Contractor for equipment utilized under these rates.

The equipment Direct Cost determination covers all costs for providing required equipment and no additional compensation will be made for other costs such as, but not limited to, fuels, lubricants, replacement parts or maintenance costs. Cost of repairs, both major and minor as well as charges for mechanic's time utilized in servicing equipment to ready it for use prior to moving to the project and similar charges will not be allowed.

12.2.2.2 Overhead: Overhead shall include the following: the Contractor's management staff; supervision; superintendence; wages of timekeepers; watchmen and clerks; small tools; incidentals; costs of preparing and responding to Request for Proposals, including estimating; schedule revisions, software costs and clerical expenses; general home and field office expenses; including any financial/financing costs; legal costs; and/or accounting costs; temporary facilities; temporary utilities (power, water, sewer, telephone, etc.) And any utilities used by the Contractor during the construction period; and all other expenses not specifically defined in Subparagraph 12.2.2.1 as direct costs. Unless specifically required or requested, any travel and associated costs from outside of the Municipality of Anchorage is considered as part of the Contractor's project overhead and will not be paid by the Owner.

12.2.2.3 The Contractor shall apply a combined percentage rate to the direct costs to compensate it for additional Overhead and Profit associated with the change. The combined rate to the Owner of any change shall not exceed the rates set forth in the following schedule:

For the Contractor, for Work performed by his own forces, up to fifteen percent (15%) of direct costs;

For each Subcontractor involved, for Work performed by the Subcontractor's forces, up to fifteen percent (15%) of direct costs;

For the Contractor, for Work performed by Subcontractors, up to ten percent (10%) of the Subcontractor's direct costs;

For the Subcontractor, for Work performed by the multiple-tier-contractors up to ten percent (10%) of direct costs;

The total Contractor and all-subcontractors overhead allowance shall not exceed twenty-five percent (25%) of direct costs.

12.2.3 For Work proceeding on a time and material basis in accordance with Subparagraph 12.2.1.3.2, the Contractor shall be compensated for its costs in accordance with the following:

12.2.3.1 Direct Costs: Direct Costs shall be as defined in Subparagraph 12.2.2.1.

12.2.3.2 Overhead: Overhead shall be as defined in Subparagraph 12.2.2.2.

- 12.2.3.3 Overhead and Profit combined included in the total costs to the Owner of any change shall not exceed the rates set forth in the following schedule:

For the Contractor, for Work performed by his own forces, up to ten percent (10%) of direct costs;

For each Subcontractor involved, for Work performed by the Subcontractor's forces, up to ten percent (10%) of direct costs;

For the Contractor, for Work performed by Subcontractors, up to five percent (5%) of the Subcontractor's direct cost.

For the Subcontractor, for Work performed by multiple-tier-contractors up to five percent (5%) of direct costs;

The total Contractor and multiple-tier-contractor overhead allowances shall not exceed twenty percent (20%) of direct costs.

- 12.2.4 If the net value of a change results in a credit from the Contractor, Subcontractor, or Material Suppliers or Vendors, the credit given shall be the net cost without overhead or profit. The costs as used herein shall include all items of labor, materials, plant and equipment. Credit changes shall include a percentage of the direct costs for overhead and profit at fifty percent (50%) of the rates defined in Subparagraph 12.2.2.3.
- 12.2.5 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in the proposed Change Order that application of the agreed unit prices to the quantities of Work proposed will cause substantial inequity to the Owner or the Contractor, the applicable unit prices shall be equitably adjusted.
- 12.2.6 The Contract Sum, the Contract Time, and the date required for performance of any part of the Work may be changed only by a Change Order to the Contract. Each Change Order will be identified at the bottom of each approved RFP, with a heading of "Change Order Authorization." Change Orders executed pursuant to this article constitute full and final settlement of all aspects of cost and time related to and/or occasioned by the Work (or event) described therein. Costs are defined to include all direct labor costs; all direct materials and equipment expenses; any and all overhead, profit, and commission; any and all impact costs related to and/or occasioned by the Work described herein; as well as all taxes and insurance. All Change Orders shall be approved by the Project Manager and signed by the Owner and Contractor.
- 12.2.7 For accounting purposes, the Change Orders identified in Subparagraph 12.2.6 will be accumulated on a monthly basis or more frequently and summarized in a Summary Change Order. The Summary Change Order shall be approved by the Project Manager and signed by the Owner and Contractor. No claim by the Contractor for or on account of any Change Order shall be due nor shall any such claim appear on an Application for Payment or demand for final payment until the Summary Change Order has been fully executed by the Contractor and the Owner.
- 12.2.8 The Superintendent of Schools and/or the Senior Director of Capital Planning and Construction are authorized to make contract modifications or to execute orders up to one hundred thousand dollars (\$100,000) that are within the project's budget. The Superintendent is authorized to make contract modifications in excess of one hundred thousand dollars (\$100,000) but not-to-exceed two hundred fifty thousand dollars (\$250,000) that are within the project's budget. All contract modifications or change orders

above two hundred fifty thousand dollars (\$250,000) shall be recommended by the Superintendent to the School Board for its approval.

12.2.9 No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment or more than six months after the date of substantial completion, whichever is earlier.

12.2.10 Nothing in this Article shall excuse the Contractor from proceeding with the Contract as changed.

12.3 DIFFERING CONDITIONS

12.3.1 The Contractor shall promptly, and before the conditions are disturbed, give written notice to the Owner of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this Contract, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract.

12.3.2 The Owner shall investigate the site conditions promptly after receiving notice. Work shall not proceed at the affected site, except at the Contractor's risk, until the Owner has provided written instructions to the Contractor. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the Work under this Contract, whether or not changed as a result of the conditions, an adjustment shall be made under this Article and the Contract modified in writing accordingly.

12.3.3 No request by the Contractor for an adjustment to the Contract under this Article shall be allowed unless the Contractor has given the written notice required.

12.3.4 No claim by the Contractor for an adjustment hereunder shall be allowed if asserted after final payment or more than six months after the date of substantial completion, whichever is earlier.

12.4 CLAIMS FOR ADDITIONAL COST OR TIME

12.4.1 If the Contractor claims that additional cost is involved because of, but not limited to (1) any written interpretation pursuant to Subparagraph 2.2.8; (2) any order by the Owner to stop the Work pursuant to Paragraph 3.4 where the Contractor was not at fault; or (3) any other impacts related to the Work, the Contractor shall make such claim as provided in Subparagraph 12.4.2.

12.4.2 If the Contractor wishes to make a claim for an increase in the Contract Sum, and such claim is not barred under Paragraph 8.3, he shall deliver to the Project Manager written notice thereof within fourteen (14) days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Paragraph 10.3. No such claim shall be valid unless so made. The written notice shall state:

12.4.2.1 the date, nature and circumstances of the conduct regarded as a change;

12.4.2.2 the name, function and activity of each Contractor official, agent or employee involved in or knowledgeable about such conduct;

12.4.2.3 the identification of any documents and the substance of any communication

involved in such conduct;

12.4.2.4 in the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;

12.4.2.5 the particular elements of Contract performance for which the Contractor may seek an equitable adjustment under this Paragraph, including:

12.4.2.5.1 what Contract Drawings or Specification have been or may be affected by the alleged change;

12.4.2.5.2 what labor or materials or both have been or may be added, deleted or wasted by the alleged change;

12.4.2.5.3 to the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performances have been or may be caused by the alleged change in accordance with Division1, Section 01311, "Project Schedule;"

12.4.2.5.4 what adjustments to the Contract Sum and other provisions of the Contract affected by the alleged change are estimated; and

12.4.2.6 the Contractor's estimate of the time by which the Project Manager and Architect must respond to the Contractor's notice to minimize cost, delay or disruption of performance in accordance with Division 1, Section 01311, "Project Schedule."

12.4.3. After receipt of a Contractor's claim, the Project Manager may visit the site, schedule an informal review hearing, or request additional information in order to fully evaluate the issues of the claim. The Project Manager has thirty (30) calendar days to review the claim and to send a written decision to the Contractor. If the Project Manager agrees with the Contractor that the issues presented in the Contractor's claim justify a change in the Contract Sum or the Contract Time, the Project Manager and the Contractor shall negotiate the amount of the adjustment in the Contract.

If the Project Manager determines that the claim does not justify a change in the Contract Sum or Contract Time, or if the Project Manager cannot reach agreement with the Contractor on the amount of the adjustment in the Contract Sum or Contract Time, the amount shall be determined in accordance with Paragraph 12.5

12.4.4 In no event shall the Contractor slow or stop the Work while such determination is pending and the Owner shall continue to make payment in accordance with the Contract Documents except as to the amount in dispute. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

12.5 RESOLUTION OF DISPUTED CLAIMS

12.5.1 All disputed claims arising from this contract shall be resolved according to the process identified in this section 12.5. This includes any interpretations of the contract documents, claims for increase in the Contract Sum or Contract Time, or any other issues of equitable adjustment.

12.5.2 Disputes between the Owner and the Contractor will be processed through the appeal process described in 12.5.3 and/or through the use of Alternative Dispute Resolution (ADR) procedures described in 12.5.4.

12.5.3 Appeal Process

- 12.5.3.1 If the Contractor does not agree with the decision of the Project Manager, the Contractor may, within ten (10) calendar days of receipt of the decision, file a notice of appeal with the Chief Operating Officer. The Chief Operating Officer will then have sixty (60) calendar days to review the appeal and send a written decision to the Contractor.
- 12.5.3.2 If the Contractor does not agree with the final decision rendered by the Chief Operating Officer, it may pursue litigation.

12.5.4 ADR Process

- 12.5.4.1 Either the Owner or the Contractor may request, prior to litigation, that a dispute be submitted to mandatory mediation.
 - 12.5.4.2 The parties shall jointly select and compensate a third party mediator.
 - 12.5.4.3 Both parties shall attend joint mediation sessions and make a good faith effort to reach agreement through this process.
 - 12.5.4.4 There is no obligation for either of the parties to accept any agreement during the mediation process.
- 12.5.5 The Contractor shall diligently carry on the Work and maintain the progress schedule during any dispute resolution proceedings, unless otherwise agreed in writing.

END OF ARTICLE 12

ARTICLE 13

UNCOVERING AND CORRECTION OF WORK

13.1 UNCOVERING OF WORK

13.1.1 If any portion of the Work should be covered contrary to the request of the Owner, Project Manager or the Architect or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Project Manager, be uncovered for his observation and shall be replaced at the Contractor's expense.

13.1.2 If any other portion of the Work has been covered which the Architect or the Project Manager has not specifically requested to observe prior to being covered, either may request to see such Work and it shall be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such work be found not in accordance with the Contract Documents, the Contractor shall pay such costs unless it be found that this condition was caused by the Owner or a separate contractor as provided in Article 6, in which event the Owner shall be responsible for the payment of such costs.

13.2 CORRECTION OF WORK

13.2.1 The Contractor shall promptly correct all Work rejected by the Project Manager as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including additional Owner Administrative and legal expenses, and additional compensation for the Architect's and/or Project Manager's additional services made necessary thereby.

13.2.2 If, within one (1) year after the Date of Substantial Completion of the Work or designated portion thereof or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner through the Project Manager to do so unless the Owner through the Project Manager has previously given the Contractor a written acceptance of such condition. This obligation shall survive the provisions of Subparagraph 9.5.5 and termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.

13.2.3 The Contractor, unless removal is waived by the Owner, shall remove from the site all portions of the Work which are defective or non-conforming, or if permitted or required, he shall correct such Work in place by and at the expense of the Contractor promptly after receipt of notice, and such rejected Work shall not thereafter be tendered for acceptance unless the former rejection or requirement for correction is disclosed.

13.2.4 If the Contractor does not proceed with the correction of such defective or non-conforming Work within a reasonable time fixed by written notice from the Owner, through the Project Manager, the Owner may either:

13.2.4.1 by separate contract or otherwise replace or correct such Work and charge the Contractor the cost occasioned the Owner thereby and remove and store the materials or equipment at the expense of the Contractor, or

13.2.4.2 terminate this Contract for default as provided in Paragraph 14.1. If the Contractor does not pay the cost of such replacement or correction and the

removal and storage within ten (10) days thereafter, the Owner may upon ten (10) additional days' written notice sell such Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for the Owner's administrative and legal expenses, and additional services of the Architect and the Project Manager made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

13.2.5 The Contractor shall bear the cost of making good all Work of the Owner or separate contractors destroyed or damaged by such correction or removal.

13.2.6 Nothing contained in this Paragraph 13.2 shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents, including Paragraph 4.5. thereof. The establishment of the time period of one (1) year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which his obligation to comply with the Contract documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to his obligations other than specifically to correct the Work.

13.3 ACCEPTANCE OF DEFECTIVE OR NONCONFORMING WORK

13.3.1 If the Owner prefers to accept defective or nonconforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect a reduction in the Contract Sum where appropriate and equitable, or the Owner may elect to accept payment in materials or services, in lieu of a reduction in the Contract Sum. If the amount of a reduction is determined after final payment, it shall be paid to the Owner directly by the Contractor.

END OF ARTICLE 13

ARTICLE 14

TERMINATION OF THE CONTRACT

14.1 TERMINATION BY THE OWNER

14.1.1 If the Contractor:

- 14.1.1.1 is adjudged bankrupt; or
- 14.1.1.2 makes a general assignment for the benefit of his creditors; or
- 14.1.1.3 has a receiver appointed on account of his insolvency; or
- 14.1.1.4 if he refuses or fails to commence the Work within the time required by this Contract; or
- 14.1.1.5 refuses or fails to prosecute the Work or any separable part with the diligence that will ensure its completion within the time specified in this Contract, including any extension; or
- 14.1.1.6 refuses or fails to provide sufficient and properly skilled workmen or proper materials or equipment to complete the Work in an acceptable manner and without delay; or
- 14.1.1.7 refuses or fails to complete the Work in accordance with the Project Schedule Milestone Dates set forth under Section 00200 hereof; or
- 14.1.1.8 fails to make prompt payment to Subcontractors or for materials or labor, or
- 14.1.1.9 persistently disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or
- 14.1.1.10 fails or refuses to comply with the requirements of Division 1, Section 01311, "Project Schedule" of the Contract Documents; or
- 14.1.1.11 otherwise is guilty of a substantial violation of a provision of the Contract Documents,

then the Owner, may, without prejudice to any right or remedy and after giving the Contractor and his surety, if any, seven (7) days' written notice, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished. Such an event of termination shall at the option of the Owner result in the automatic assignment to the Owner of all of the Contractor's subcontracts, and the Owner may thereafter enforce such subcontracts in the prosecution of the Work in the same manner and to the same extent as the Contractor.

- 14.1.2 If the cost of finishing the Work exceeds the unpaid portion of the Contract Sum, the Contractor or his assigns, heirs or sureties shall pay the difference to the Owner. This obligation shall survive the termination of the Contract.

14.1.3 Nothing contained in this Article 14 shall impair any of the obligations of the surety.

14.2 TERMINATION FOR CONVENIENCE

14.2.1 The performance of the Work under this Contract may be terminated by the Owner in whole, or from time to time in part, whenever the Owner shall determine that such termination is in the best interest of the Owner. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance of Work under the Contract is terminated, and the date upon which such termination becomes effective.

14.2.2 After receipt of a Notice of Termination, and except as otherwise directed by the Owner, the Contractor shall:

14.2.2.1 stop Work under the Contract on the date and to the extent specified in the Notice of Termination;

14.2.2.2 place no further orders or subcontracts for materials, services or equipment, except as may be necessary for completion of such portion of this Work under the Contract as is not terminated;

14.2.2.3 terminate all orders and subcontractors to the extent that they relate to the performance of Work terminated by the Notice of Termination;

14.2.2.4 assign to the Owner, in the manner, at the times, and to the extent directed by the Owner, all of the right, title, and interest of the Contractor under the orders and subcontracts so terminated, in which case the Owner shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;

14.2.2.5 settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the Owner, to the extent he may require, which approval or ratification shall be final for all the purposes of this clause;

14.2.2.6 transfer title and deliver to the Owner, in the manner, at the times, and to the extent, if any, directed by the Owner, (A) the fabricated or unfabricated parts, Work in process, completed Work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the Work terminated by the Notice of Termination, and (B) the completed or partially completed plans, drawings, information, and the property which, if the Contract has been completed, would have been required to be furnished to the Owner;

14.2.2.7 use his best efforts to sell, in the manner, at the time, to the extent and at the price or prices directed or authorized by the Owner, any property of the types referred to in Subparagraph 14.2.2.6 above, provided, however, that the Contractor (A) shall not be required to extend credit to any purchase, and (B) may acquire any such property under the conditions prescribed by and at a price or prices approved by the Owner, and provided further, that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Owner to the Contractor under this Contract or shall otherwise be credited to the price or cost of the Work covered by this Contract or paid in such other manner as the Owner may direct;

14.2.2.8 complete performance of such part of the Work as shall not have been terminated by the Notice of Termination and may incur obligations as are

necessary to do so; and

- 14.2.2.9 take such action as may be necessary, or as the Owner may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the Owner has or may acquire an interest.
- 14.2.3 The Contractor may submit to the Owner a list, certified as to quantity and quality, of any or all items of termination inventory not previously disposed of, exclusive of items the disposition of which has been directed or authorized by the Owner, and may request the Owner to remove such items or enter into a storage agreement covering them. Not later than fifteen (15) days thereafter, the Owner will accept title to such items and remove them or enter into a storage agreement covering the same; provided that the list submitted shall be subject to verification by the Owner upon removal of all items, or if the items are stored within forty-five (45) days from the date of submission of the list, and any necessary adjustment to correct the list as submitted shall be made prior to final settlement.
- 14.2.4 After receipt of a Notice of Termination, the Contractor shall submit to the Owner his termination claim, in the form and with certification prescribed by the Owner. Such claim shall be submitted promptly but in no event later than six (6) months from the effective date of termination. Upon failure of the Contractor to submit his termination claim within the time allowed, the Owner may determine on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.
- 14.2.5 Subject to the provisions of Subparagraph 14.2.4 above, the Contractor and the Owner may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of Work pursuant to this paragraph, which amount or amounts may include a reasonable allowance of profit on Work done; provided that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total Contract Sum as reduced by the amount of payments otherwise made and as further reduced by the Contract Sum attributable to that portion of Work not terminated. The Contract shall be amended accordingly, and the Contractor shall be paid the agreed amount. Nothing in Subparagraph 14.2.6 below, prescribing the amount to be paid to the Contractor in the event of failure of the Contractor and the Owner to agree upon the whole amount to be paid to the Contractor by reason of the termination of Work pursuant to this clause, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this Subparagraph 14.2.5.
- 14.2.6 In the event of the failure of the Contractor and the Owner to agree, as provided in Subparagraph 14.2.5 above, upon the whole amount to be paid to the Contractor by reason of the termination of Work pursuant to this paragraph, the Owner shall pay to the Contractor the amounts determined by the Owner as follows, but without duplication of any amounts agreed upon in accordance with Subparagraph 14.2.5:
 - 14.2.6.1 with respect to all Contract Work performed prior to the effective date of the Notice of Termination, the total (without duplication of any items) of:
 - 14.2.6.1.1 the cost of such Work;
 - 14.2.6.1.2 the cost of settling and paying claims arising out of the termination of Work under subcontracts or orders as provided in Subparagraph 14.2.2.5 above exclusive of the amounts paid or payable on account of supplies or materials delivered or services

furnished by the Subcontractor prior to the effective date of the Notice of Termination Work under this Contract, which amounts shall be included in the cost on account of which payment is made under Subparagraph 14.2.6.1 above; and

- 14.2.6.1.3 a sum as profit on Subparagraph 14.2.6.1.1 above, determined by the Owner to be fair and reasonable; and
- 14.2.6.2 the reasonable cost incidental to termination of Work including:
 - 14.2.6.2.1 accounting, legal, clerical and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
 - 14.2.6.2.2 the termination and settlement of subcontracts (excluding the amounts of such settlements); and storage, transportation and other costs incurred (pursuant to Subparagraph 14.2.2.9), reasonably necessary for the preservation, protection or disposition of the termination inventory.
- 14.2.6.3 The total sum to be paid to the Contractor under Subparagraph 14.2.6.1 above shall not exceed the total Contract Sum as reduced by the portion of the Contract Sum attributable to that portion of Work not terminated. Except for normal spoilage, and except to the extent that the Owner shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor under Subparagraph 14.2.6.1, the fair value, as determined by the Owner, of property which is destroyed or lost, stolen, or damaged so as to become undeliverable to the Owner, or to a buyer pursuant to Subparagraph 14.2.2.7.
- 14.2.7 In arriving at the amount due the Contractor under this paragraph, there shall be deducted (1) all unliquidated advance or other payments on account theretofore made to the Contractor, applicable to the terminated portion of this Contract, (2) any claim which the Owner may have against the Contractor in connection with this Contract, and (3) the agreed price for, or the proceeds of sale of, any materials, supplies or other things acquired by the Contractor or sold, pursuant to the provisions of this paragraph and not otherwise recovered by or credited to the Owner.
- 14.2.8 If the termination hereunder be partial, the Contractor may file with the Owner a claim for an equitable adjustment of the price or prices specified in the Contract relating to the continued portion of the Contract (the portion not terminated by the Notice of Termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices. Any claim by the Contractor for an equitable adjustment under this clause must be asserted within ninety (90) days from the effective date of the termination.
- 14.2.9 The Owner may from time to time, under such terms and conditions as it may prescribe, make partial payments and payments on account against costs incurred by the Contractor in connection with the terminated portion of this Contract whenever in the opinion of the Owner the aggregate of such payments shall be within the amount to which the Contractor will be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this paragraph, such excess shall be payable by the Contractor to the Owner upon demand, together with interest computed at the legal prevailing rate, for the period from the date such excess payment is received by the Contractor to the date on which such excess is repaid to the Owner, provided, however, that no interest shall be charged with respect to any such excess payment, attributable to

a reduction in the Contractor's claim by reason of retention or other disposition of termination inventory until ten (10) days after the date of such retention or disposition, or such later date as determined by the Owner by reason of the circumstances.

- 14.2.10 Unless otherwise provided for in this Contract, or by applicable statute, the Contractor shall - from the effective date of termination until the expiration of three (3) years after final settlement under this Contract - preserve and make available to the Owner at all reasonable times at the office of the Contractor but without direct charge to the Owner, all his books, records, documents and other evidence bearing on the costs and expenses of the Contractor under this Contract and relating to the Work terminated hereunder, or, to the extent approved by the Project Manager, photographs, microphotographs, or other authentic reproductions thereof.

END OF ARTICLE 14

SUPPLEMENTARY GENERAL CONDITIONS TO THE CONTRACT FOR CONSTRUCTION

REFERENCE:

1. **GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ANCHORAGE SCHOOL DISTRICT, ANCHORAGE, ALASKA**, constitutes the General Conditions of this Contract, and is further revised and supplemented by the provisions of these Supplementary General Conditions. The General Conditions and the Supplementary General Conditions are applicable to all of the work under this Contract and shall apply to the Contractor and all Subcontractors, Sub-subcontractors, and Material Suppliers and Vendors.

SUPPLEMENTS:

1. The following supplements modify, change, delete, or add to the General Conditions. Where any article of the General Conditions is modified or any paragraph deleted, subparagraph or clause thereof is modified, or deleted by these supplements, the unaltered provisions of such article, paragraph, sub-paragraph or clause shall remain in effect.

ARTICLE 4

Remove and replace Section 4.7.1.1 with the following:

- 4.7.1.1 The Contractor shall submit and pay for all necessary Anchorage Building Plan Review and Building Fee Permits. The Contractor shall be responsible to pay for any additional permit fees including, but not limited to Sub-Contractor building permit fees, inspection fees, re-inspection fees, special construction permit fees, and the like.

Add the following new Paragraphs 4.7.1.2 & 4.7.1.3:

- 4.7.1.2 Unless otherwise authorized by the Project Manager, successfully obtaining the necessary permits shall be the responsibility of the Contractor and shall constitute a requirement for the issuance of the Notice to Proceed by the Owner.
- 4.7.1.3 Contractor shall submit Fire Alarm shop drawings to the Municipality of Anchorage Building Safety Office.
 - 4.7.1.3.1 Contractor shall pay for the Municipality of Anchorage Fire Alarm permits.
 - 4.7.1.3.2 Contractor shall obtain the permits upon approval.

Add the following new Paragraph 4.21, Construction Management Software:

4.21 CONSTRUCTION MANAGEMENT SOFTWARE

- 4.21.1 The Contractor shall fully utilize the Owner provided construction management software, currently Sage Procore Construction Management for communications, Submittals, Requests for Information, for submission of construction record documents and photographs, and other purposes as directed by the Project Manager.
- 4.21.2 The contractor shall designate a minimum of two (2) people from their internal project staff to access the Construction Management Software. It is incumbent upon the Contractor to ensure these individuals familiarize themselves and become proficient in the use of the Construction Management software utilizing the manuals, help files, training videos, forums and other support services provided by the Construction

Management Software.

ARTICLE 7

Add the following new Paragraph 7.12, Fire Alarm System:

7.12 FIRE ALARM SYSTEM

- 7.12.1 Before beginning any work that may result in a fire alarm transmission, the contractor shall call both the Anchorage Fire Department dispatcher at 907-522-1122 and the local fire station which would respond to an alarm and let them know you will be working on the system and for approximately how long. Second the contractor shall call Guardian Security at 907-277-1975 and notify the dispatcher that you have called the Fire Department, what type of work you are planning to do, and approximately how long before you expect to be completed. After the contractor is completed with your work, you must reverse the process by notifying the Fire Department dispatcher and the ASD Dispatcher that you are finished.
- 7.12.2 The Contractor shall be held responsible for all charges incurred from false fire alarms. Currently the Anchorage Fire Department charges seven hundred fifty dollars and no cents (\$750.00) per false alarm, or current rate charged.

Add the following new Paragraph 7.13, Apprenticeship Utilization Requirements for Contracts:

7.13 APPRENTICESHIP UTILIZATION REQUIREMENTS FOR CONTRACTS

- 7.13.1 Once awarded a contract by ASD, the prime contractor will be responsible to gather and submit all documentation to ASD to confirm compliance with the Apprenticeship Utilization Policy ("AUP") mandated by Anchorage School Board Policy 3311.1.2. The Prime contractor will provide documentation to ASD to confirm that 15% of the labor hours worked in trades/crafts categories that are included in the Alaskan Federally Registered Apprenticeship Program has been executed by certified apprentices enrolled in those programs, and will provide documentation to confirm that the apprentices listed on the documentation submitted are currently in good standing with their Alaskan Federally Registered Apprenticeship Program. ASD will provide several forms which the prime contractor will be required to fill out in addition to submitting their certified payroll documents. Also, ASD will audit the prime contractor's documentation on the following schedule. Audits for projects will be conducted every 30 days. In addition, ASD will conduct on-site audit at non-scheduled intervals to ensure that the apprentices listed on the written documentation are physically on-site. ASD will give a reasonable notice of 24 hours prior to on-site inspections.
- 7.13.2 The prime contractor will be required to submit the following, at the intervals requested by ASD:
- Certified Payroll for prime and subcontractors.
 - Apprenticeship Utilization Form for prime and subcontractors.
 - Apprenticeship Utilization Calculation form for prime and subcontractors, which demonstrates labor hours worked by apprentices in applicable crafts/trades categories, and reports status as to whether the apprentices listed are in good standing with their Alaskan Federally Registered Apprenticeship Program.

ARTICLE 9

Add the following new Paragraph 9.12, Liquidated Damages:

9.12 LIQUIDATED DAMAGES

- 9.12.1 Should the Contractor fail to substantially complete the Work on or before any date stipulated for Substantial Completion (or such later date as may result from extension of time granted by the Owner), he shall pay the Owner, as liquidated damages, the sum of one thousand dollars and no cents (\$1,000.00) for each consecutive calendar day that terms of the contract remain unfulfilled beyond the date allowed by the Contract, which sum is agreed upon as a reasonable and proper measure of damages which the Owner will sustain per day by failure of the Contractor to complete work within time as stipulated; it being recognized by the Owner and to the Contractor that the injury to the Owner which could result from a failure of the Contractor to complete on schedule is uncertain and cannot be computed exactly. In no way shall costs for liquidated damages be construed as a penalty on the Contractor.
- 9.12.2 For each consecutive calendar day that the Work remains incomplete after the date established for Final Completion, the Owner will retain from the compensation otherwise to be paid to the Contractor the sum of one thousand dollars and no cents (\$1,000.00). This amount is the minimum measure of damages the Owner will sustain by failure of the Contractor to complete all remedial work, correct deficient work, clean up the project and miscellaneous tasks as required to complete all work specified.
- 9.12.3 In no instance shall more than one thousand dollars and no cents (\$1,000.00) a day are assessed for liquidated damages for work, which remains incomplete.

ARTICLE 10

Add the following new Paragraph 10.4, Compliance:

10.4 COMPLIANCE

- 10.4.1 When the school is in session the Contractor will be restricted to the areas, which do not interfere with school operations. These areas shall be safety and security fenced to not impact school operations. Additional areas may be utilized upon concurrence of the Project Manager. The Contractor shall minimize his impact on education while his work is in progress. Workers must stay out of school while school is in session. All renovation work in the existing school, including sprinklers, must be performed while school is not in session. If scheduling pushes this work into the school session, then the work must be performed on nights and weekends.
- 10.4.2 The Contractor must maintain interior building fire exits through the construction areas and maintain these exits during all school operation hours. These exit routes may not be modified without concurrence of the Project Manager and the School Principal.

ARTICLE 11

Remove and replace Section 11.3.3.1 with the following:

- 11.3.3.1 The Contractor shall maintain an umbrella liability policy according to the following:

Projects < \$2 million construction cost - \$1,000,000 per occurrence and annual aggregate.

Projects < \$10 million construction cost – \$5,000,000 per occurrence and annual aggregate.

Projects > \$10 million construction cost – \$10,000,000 per occurrence and annual aggregate.

This requirement does not apply to Subcontractors.

Article 11, 11.4: Delete this section in its entirety and replace with the following:

Builders Risk insurance is not required for scope of work identified in this project.

ARTICLE 12

Article 12, 12.5.2: Delete this section in its entirety and replace with the following:

Disputes between the Owner and the Contractor will be processed through the appeal process described in 12.5.3.

Article 12, 12.5.3: Delete this section in its entirety and replace with the following:

12.5.3 Appeal Process

- 12.5.3.1 The contractor will submit in writing the issue(s) being claimed and the Project Manager will review. The Project Manager may visit the site, schedule a review hearing, or request additional information in order to fully evaluate the issues of the claim. The Project Manager will send the written decision to the Contractor within ten (10) days of receipt of claim.
- 12.5.3.2 If the Contractor does not agree with the decision of the Project Manager, within ten (10) days from the receipt of the written decision by the Project Manager, the Contractor may request an appeal of the decision to the Senior Director of Capital Planning & Construction. The Senior Director of Capital Planning & Construction will then have ten (10) days to review the issue(s) and send a written decision to the Contractor.
- 12.5.3.3 If the Contractor does not agree with the decision of the Senior Director of Capital Planning & Construction, within ten (10) days from the receipt of the written decision by the Senior Director of Capital Planning & Construction, the Contractor may request an appeal of the decision to the Chief Operating Officer. The Chief Operating Officer will then have ten (10) days to review the issue(s) and send a written decision to the Contractor.
- 12.5.3.4 If the Contractor does not agree with the final decision rendered by the Chief Operating Officer, it may pursue litigation.
- 12.5.3.5 The Contractor may bring no action on claims unless the claims have been properly raised in accordance with all notice provisions of the

conditions and considered in the above dispute-resolution procedures.

12.5.3.6 The Contractor shall diligently carry on the Work and maintain the progress schedule during any dispute-resolution proceedings, unless otherwise agreed in writing.

12.5.3.7 Any step in the process identified above can be waived only by explicit written waiver by both parties.

Article 12, 12.5.4: Delete this section in its entirety.

END OF SECTION

WAGE RATES

I. GENERAL

A. STATE OF ALASKA PREVAILING WAGE SCALE AND ALASKA HIRE

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the Contract. Among other things, the requirements of Alaska's Little Davis Bacon Act (AS 36.05.010) are applicable to this project. Each bidder must inform himself/herself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provisions of the Contract.

State Labor Wage and Hour Administration Pamphlets No. 600 for Laborers' and Mechanics' are updated on April 1, and September 1. It is the responsibility of the bidder to obtain the new labor wage and hour rates when available from the State of Alaska Department of Labor, and to use the Prevailing wage scale and hiring requirements when formulating your bid.

For copies of this pamphlet, contact the nearest office of the Division of Labor Standards and Safety, Wage and Hour office or visit the internet site at:

<http://labor.state.ak.us/lss/pamp600.htm>

END OF SECTION

SUMMARY OF WORK

PART 1. GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of this Contract comprises the general construction of the facility identified in the Solicitation including all noted site improvements.
- B. Definition of Site: Wherein the term Site is used in the contract documents, it shall mean the areas where work is to be performed; located as identified in the Solicitation and on the Contract Drawings.
- C. Acceptance of Site: The Contractor shall fully inform himself of the areas in which work is to be processed, material delivered, and limitation in working conditions, and access to work areas.
- D. Existing Conditions: The drawings may not show all arrangements and condition of the site as they now exist. The Contractor shall be responsible for a complete visual inspection.

1.03 CONTRACT

- A. Construct the work under a single fixed price contract as bound herein.
- B. It is the intent of these documents to require all work for a complete facility and plant with only minor owner-furnished items to be incorporated. See technical sections for specifics.

1.04 WORK FURNISHED AND INSTALLED BY OWNER

- A. Equipment and furniture as noted in documents. Other Contractors or ASD Maintenance personnel may be performing work at this facility concurrent with this project. See Section 1.07 below for requirements concerning coordination with Contractor's work.

1.05 GENERAL PROJECT DESCRIPTION

- A. General Description: Ursa Major Elementary School located at 454 Dyea Avenue, JBER, Alaska 99505.
- B. Construction: A demolition, hazmat removal, and grade and fill project. All requirements for the scope of work are in the project documents. Coordination with Doyon Utilities, and approval of haul routes for demolition materials, and backfill are required from the 673d CES/CENM.
- C. Sequence the start, conduct and completion of Work as required in Section 00200, Project Schedule Milestone Dates.

1.06 CONTRACTOR'S USE OF PREMISES

- A. Limit use of premises for work and for storage to allow for:
 - 1. Area of site indicated on Contract Drawings.
 - 2. Coordinated use of premises under direction of Project Manager.
 - 3. Full responsibility for protection and safekeeping of products under this Contract stored at Site.
 - 4. Moving any stored products, under Contractor's control, which interfere with operations of Owner or separate Contractor.

1.07 OWNER'S USE OF PREMISES

- A. The contractor shall provide advance notice at least 72 hours prior to any utility outages or other operations. The Project Manager will review and evaluate the request.

1.08 COORDINATION OF NOISE, DUST AND FUMES

- A. Contain noise, dust and fumes within work area. Notify Project Manager at least 24 hours prior to any necessary excessive noise, dust or fumes. Comply with the Project Manager's instructions.

1.09 SALVAGE RIGHTS

- A. Remove scheduled materials and equipment without damaging items. Store items in protected environment. Coordinate with Owner for pick up and/or delivery to the owner. If delivered to the owner include project name and school for easy identification.
- B. Once the Owner selects materials and equipment for salvage all other removed materials and equipment which is removed as a part of the work shall become the property of the Contractor to dispose of as he sees fit. Some items for salvage are listed in Section 01450 Value Engineering. All materials, debris, casework, FF&E, and items not considered for VE shall be transported to a landfill under the provisions of 01 74 19 Construction Waste Management and Disposal.

1.10 USE OF OWNER'S PROPERTY AND EQUIPMENT

- A. Use of Owner's property or equipment such as tools, ladders, furniture, janitorial equipment and supplies, etc., is strictly prohibited.

1.11 PERMITTING

- A. Contractor shall obtain all necessary building permits required to complete the scope of work identified in the contract documents. These include any/all subcontractor or specialty permits.
- B. Contractor shall ensure all required Municipal inspections, in accordance with the aforementioned permits, are requested and conducted prior to covering, closing or concealing the work in the field. Understanding and adhering to all Municipality of Anchorage inspection requirements is mandatory. The Owner is not liable for re-inspection or rework costs associated with non-conforming or prematurely concealed work.
- C. Contractor shall maintain an inspection log and retain copies of all inspection reports, on site, for review by inspection officials and district project representatives.

- D. Coordinate with Doyon Utilities for points of demarcation between Project Documents scope of work and Doyon Utilities scope of work.
- E. The 673rd requirements for Contractor Equipment, trucks, and vehicles to come through JBER Gates are as follows:
 - 1. Follow State Road Restrictions.
 - 2. Use Post Gate Road for incoming and outbound traffic. Vehicles will be inspected by Security Forces before being allowed on base.
 - 3. Submit a Traffic Control Plan to the ASD Project Manager, who will then forward to CE for approval.
 - 4. Based on the approved Traffic Control Plan, make plans for Road Closures and Detours, and include the necessary signage.
 - 5. Indicate the time frame of occurrence.
 - 6. Hazardous Materials Waste manifests are to be submitted to the ASD Project Manager to be forwarded to CE.
 - 7. Notify the ASD Project Manager for any utility interruptions. The ASD Project Manager will coordinate with Doyon Utilities and CE.

END OF SECTION

CUTTING AND PATCHING

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. Cutting and patching is defined to include, but is not necessarily limited to, the cutting and patching of nominally completed work, and is defined to exclude integral cutting and patching during the manufacturing, fabricating, erecting, and installing process for individual units of work.
- B. Contractor shall be responsible for all cutting, fitting, and patching required to complete the work or to:
 - 1. Accommodate the coordination of work.
 - 2. Provide for installation of other work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirements of Contract Documents.
 - 5. Uncover other work for access or inspection.
 - 6. Obtain samples for testing or similar purposes.
 - 7. Provide routine penetrations of nonstructural surfaces for installation of piping and electrical conduit.

1.02 RELATED REQUIREMENTS

- A. Section 00700, General Conditions of the Contract for Construction, Article 4.14.
- B. Section 01010 - Summary of Work.
- C. Individual Specification Sections:
 - 1. Cutting and patching incidental to work of the Section.
 - 2. Advance notification to other Sections of openings required in work of those Sections.
 - 3. Limitations on cutting structural members.

1.03 SUBMITTALS

- A. Ten (10) days prior to beginning any demolition activities, the Contractor shall provide written notification to EPA, in accordance with NESHAP regulations, with copy to Project Manager. Notice shall indicate asbestos containing materials are or are not anticipated to be encountered. If no asbestos is anticipated, a negative declaration is made addressing 40CFR61.146 (a), (b) and (c,1-5).
- B. Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight-exposed elements.
 - 5. Work of Owner or separate contractor.
- C. Include in Request:
 - 1. Identification of Project.
 - 2. Location and description of affected work.
 - 3. Necessity for cutting and alteration.

4. Description of proposed work. Designate:
 - a. Scope of cutting and patching.
 - b. Contractor and trades to execute work.
 - c. Products proposed to be used.
 - d. Extent of refinishing.
5. Date and time work will be executed.

PART 2. PRODUCTS

2.01 MATERIALS

- A. For replacement of work removed, comply with specifications for type of work to be done, unless otherwise noted.
- B. Provide materials for cutting and patching which will result in equal to or better than the work being cut and patched in terms of performance characteristics and visual effect where applicable.

PART 3. EXECUTION

3.01 GENERAL

- A. Execute cutting, fitting, and patching to complete Work, and to:
 1. Fit the several parts together, to integrate with other Work.
 2. Uncover work to install or correct ill-timed Work.
 3. Remove and replace defective and non-conforming Work.
 4. Remove samples of installed Work for testing.
 5. Provide openings in elements of Work for penetrations of mechanical and electrical work.
 6. Repair surfaces damaged by removal or relocation of surface mounted or built-in items.

3.02 INSPECTION

- A. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- B. Do not cut and patch work which is exposed to view in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of the cut and patch work. Remove and replace work judged by Project Manager to be visually unsatisfactory.
- C. After uncovering, inspect conditions affecting performance of work.
- D. Beginning of cutting or patching means acceptance of existing conditions.

3.03 PREPARATION

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by cutting and patching operations, as directed. Return adjacent areas to condition existing prior to start of work.
- B. Provide supports to assure structural integrity of surroundings; devices and methods to

protect other portions of Project from damage.

- C. Provide protection from elements for areas which may be exposed by uncovering work; maintain openings free of water.

3.04 PERFORMANCE

- A. Execute work by methods to avoid damage to other work, and which will provide proper surfaces to receive patching and finishing.
- B. Restore work with new products in accordance with requirements of Contract Documents.
- C. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Maintain all fire assembly rating wall or area separation construction in accordance with applicable codes.
- D. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

END OF SECTION

FIELD ENGINEERING

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide and pay for field engineering services required for project, i.e., civil, structural, or other professional engineering services required to execute Contractor's construction methods.

1.02 RELATED REQUIREMENTS

- A. Section 00700 General Conditions of the Contract for Construction and Section 00800 Supplementary General Conditions to the Contract for Construction.
- B. Section 01010: Summary of Work.
- C. Section 01700: Project Close-Out.

1.03 QUALIFICATIONS OF SURVEYOR AND ENGINEER

- A. Provide Qualified Professional Engineer and Registered Land Surveyor with current Alaska license and acceptable to Contractor and Owner.

1.04 SURVEY REFERENCE POINTS

- A. Locate and protect benchmarks, monuments, and other control points prior to starting site work, preserve all permanent points during construction.
 - 1. Make no changes or relocations without prior written notice to Project Manager.
 - 2. Report to Project Manager when any reference point is lost, destroyed or required relocation because of necessary changes in grades or locations.
 - 3. Require surveyor to replace project control points which may be lost or destroyed and establish replacements based on original survey control.

1.05 PROJECT SURVEY REQUIREMENTS

- A. Establish a minimum of two permanent benchmarks on site, referenced to data established by survey control points.
- B. Record locations, with horizontal and vertical data, on Project Record Documents.
- C. Establish and identify lines, levels, contours, and datum by instrumentation or similar appropriate means for:
 - 1. Stakes for grading, fill, and topsoil placement.
 - 2. Utility slopes and invert elevations.
 - 3. Batter boards for structures.
 - 4. Building foundation, column locations, and floor levels.
 - 5. Controlling lines and levels required for mechanical and electrical trades.
- D. From time to time, verify layouts by same methods.

1.06 RECORDS

- A. Maintain a complete, accurate log of all control and survey work as it progresses.

1.07 SUBMITTALS

- A. Submit name and address of Surveyor and Professional Engineer to Project Manager.
- B. On request of Project Manager, submit documentations to verify accuracy of field engineering work.
- C. Submit certificate signed by Registered Engineer and Surveyor certifying that elevations and locations of improvements are in conformance with Contract Documents in the form of an "As-Built" survey.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

ABBREVIATIONS AND DEFINITIONS

PART 1. GENERAL

1.01 ABBREVIATIONS

- A. References in the contract documents to publications and recommendations by either name or abbreviation thereof include but are not necessarily limited to the following trade associations, technical societies, government agencies, recognized authorities and standards.

AAMA	Architectural Aluminum Manufacturers Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AGC	The Associated General Contractors of America
AI	The Asphalt Institute
AIA	The American Institute of Architects
AISC	American Institute of Steel Construction, Inc.
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ANSI	American National Standards Institute
APA	American Plywood Association
ASAHC	American Society of Architectural Hardware Consultants
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWI	Architectural Woodwork Institute
AWPA	American Wood-Preservers' Association
AWPB	American Wood-Preservers' Bureau
AWS	American Welding Society, Inc.
CPSC	Consumer Product Safety Commission
CRA	California Redwood Association
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard of NBS (U.S. Department of Commerce)
CSI	The Construction Specifications Institute, Inc.
EPA	Environmental Protection Agency
FM	Factory Mutual Engineering Corp.
FGMA	Flat Glass Marketing Association
FS	Federal Specification (General Services Administration)
GA	Gypsum Association
HPMA	Hardwood Plywood Manufacturers Association
IBC	International Building Code
MFMA	Maple Flooring Manufacturers Association
MLMA	Metal Lath/Manufacturers Association
NAAMM	The National Association of Architectural Metal Manufacturers
NBFU	National Board of Fire Underwriters
NBHA	National Builders Hardware Association
NBS	National Bureau of Standards (U.S. Department of Commerce)
NEC	National Electrical Code by NFPA
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
N.F.P.A.	National Forest Products Association
NRCA	National Roofing Contractors Association

NSF	National Sanitation Foundation
NWMA	National Woodwork Manufacturers Association, Inc.
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
RIS	Redwood Inspection Service (Grading Rules)
SDI	Steel Deck Institute
S.D.I.	Steel Door Institute
SIGMA	Sealed Insulating Glass Manufacturers Association
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractor's National Association, Inc.
SPR	Simplified Practice Recommendation of NBS
SSPC	Steel Structures Painting Council
TCA	Tile Council of America, Inc.
UL	Underwriters' Laboratories, Inc.
WCLA	West Coast Lumbermen's Association
WCLB	West Coast Lumber Inspection Bureau (Grading Rules)
WRI	Wire Reinforcing Institute
WWPA	Western Wood Products Association (Grading Rules)
W.W. P.A.	Woven Wire Products Association

- B. Refer to individual sections for other names and abbreviations of trade associations and standards applicable to specific portions of the work.

1.02 SPECIFICATION EXPLANATION

- A. The specifications are divided into divisions and sections for the convenience of writing and using. The titles of these are not intended to imply a particular meaning nor to fully describe the work of each division or section, nor to define the limits of any subcontract.
- B. These specifications are of the abbreviated, or "streamlined" type, and may include incomplete sentences.
- C. Omissions of words or phrases such as "the Contractor shall", "in conformity therewith", "shall be", "as noted on the drawings", "according to the plans", "a", "an", "the", and "all" are intentional.
- D. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the drawings.

1.03 DEFINITIONS

- A. Certain terms used generally throughout the specifications (and drawings) are hereby defined as follows:
 - 1. Indicated: A cross reference to details, notes or schedules on the drawings, other paragraphs or schedules in the specifications, and similar means of recording requirements in the contract documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used in lieu of "indicated", it is for the purpose of helping the reader accomplish the cross reference, and no limitation of location is intended except as specifically noted.
 - 2. Installer: The person or entity engaged by the Contractor or his Subcontractor or Sub-subcontractor for the performance of a particular unit or work at the project site, including installation, erection, application, and similar required operations. It is a general requirement that installers be recognized experts in the work they are

- engaged to perform.
3. Furnish: Except as otherwise defined in greater detail, the term “furnish” is used to mean “...supply and delivery to the project site, ready for unpacking, assembly and installation...”.
4. Provide: Except to the extent further defined, the term “provide” means to furnish and install, complete and ready for the intended use.

1.04 DRAWINGS, DIMENSIONS AND MEASUREMENTS

- A. Where on any of the drawings a portion of the work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other portions of the work.
- B. Wherever a detail is referenced and developed for a specific condition, same or similar detail shall apply to identical or similar conditions elsewhere on project even though not specifically referenced.
- C. Where the word “similar” occurs on the drawings, it shall be interpreted in its general sense and not as meaning identical, and all details shall be worked out in relation to their location and their connection with other parts of the work.
- D. The figured dimensions on the drawings or notes indicating dimensions shall be used instead of measurements of the drawings by scale, and shall be strictly complied with.
- E. No scale measurements shall be used as a dimension to work with except on “full size” drawings not dimensioned.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

PROJECT MEETINGS

PART 1. GENERAL

1.01 DESCRIPTION

A. Work Included:

1. In general, project meetings will be held weekly at the job site in accordance with a mutually acceptable schedule. The Project Manager will conduct project meetings throughout the construction period.
2. The purpose of the project meetings is to enable orderly review of progress during construction and to provide for systematic discussion and analysis of problems that might arise between the Owner, Project Architect, Project Manager and/or Contractor relative to execution of the work.

B. Related Work described elsewhere:

1. The Contractor's relations with his subcontractors and material suppliers, and discussions relative thereto, are the Contractor's responsibility as described in the General Conditions and are not part of project meetings content.
2. Section 01400 describes the requirements for quality control meetings that will be held in addition to the requirements of this section.

1.02 AUTHORITY DESIGNATION

- A. Persons designated by the Contractor to attend and participate in project meetings shall have all required authority to commit the Contractor to solutions as agreed upon in the project meetings.

1.03 SUBMITTALS

A. Agenda Items:

To the maximum extent possible, advise the Project Manager forty-eight (48) hours in advance of the project meeting regarding all agenda items to be discussed, including tours in advance of the meeting.

1.04 AGENDA

A. Preconstruction Meeting

1. The Project Manager will conduct this meeting within fifteen (15) days after date of Notice to Proceed.
2. Location:
Anchorage School District
Capital Planning & Construction
1301 Labar Street
Anchorage, Alaska 99515
(907) 348-5190
3. Attendance:
 - a. ASD Construction Supervisor
 - b. ASD Project Manager

- c. Architect and his Professional Consultants
- d. Contractor's Project Manager and Superintendent
- e. Major Subcontractors, as appropriate
- f. Major Suppliers, as appropriate
- g. Others as appropriate

4. Agenda items will include, but not be limited to:

- a. Designation of responsible personnel
- b. Distribution (by Contractor) and discussion of list of major Subcontractors and Suppliers with addresses and telephone numbers
- c. Project coordination
- d. Procedures and processing of:
 - (1) Field decisions
 - (2) Submittals
 - (3) Proposal requests
 - (4) RFI's Change Orders
 - (5) Applications for Payment
 - (6) Schedules and Reports
- e. Discussion of initial Project Schedule
- f. Critical work sequencing
- g. Major equipment deliveries and priorities
- h. Adequacy of Contract Documents distribution
- i. Procedures for maintaining Record Documents
- j. Use of premises:
 - (1) Office, work, and storage area
 - (2) Owner's requirements
- k. Construction facilities, controls, and construction aids
- l. Temporary utilities
- m. Safety and first-aid procedures
- n. Security procedures
- o. Housekeeping procedures

B. Progress Meetings:

- 1. The Project Manager will conduct weekly meetings as required, at the Project Site to coordinate the work, answer questions, and resolve problems.
- 2. Meeting Agenda will include but not be limited to:
 - a. Attendees:
 - List of attendees and company they represent
 - b. Minutes Review:
 - Corrections, additions, and/or deletions to previous minutes
 - c. Outstanding Action Items:
 - Review of items not resolved from previous meeting
 - d. Submittal status
 - e. Request for Information status
 - f. Request for Proposal Status
 - g. Schedule Review:
 - Project job concerns
 - h. Next meeting
 - i. Summarize and Review of all Action Items:
- 3. All items to be discussed shall be addressed at the time scheduled on the agenda. All attendees shall familiarize themselves with the agenda and be prepared in

advance with their items for discussion.

C. Special Meetings:

The Project Manager may call special meetings at the project site or the office of the Project Manager to coordinate the work, answer questions, and resolve problems.

1.05 MINUTES

- A. The Project Manager will compile minutes of each project meeting and will distribute copies to all interested parties within seven (7) calendar days after the meeting. Items in the minutes shall be numbered consecutively and grouped under divisions and sections. Each item shall be carried forward until resolved.
- B. The minutes compiled by the Project Manager will be the official record minutes and all clarifications and/or corrections shall be transmitted in writing to the Project Manager within fourteen (14) days of date of receipt of the minutes or unless noted during the next scheduled meeting under the appropriate agenda item. Transmitted corrections shall be legibly submitted on company letterhead.
- C. At least one (1) bound volume of all minutes shall be maintained by the Contractor in the job office until project completion.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

SUBMITTALS

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures
- B. Construction Progress Schedules
- C. Schedule of Values
- D. Shop Drawings
- E. Product Data
- F. Samples
- G. Manufacturer's Instructions
- H. Manufacturer's Certificates

1.02 RELATED REQUIREMENTS

- A. Section 01010 - Summary of Work
- B. Section 01311 - Project Schedule
- C. Section 01340 - Shop Drawings, Product Data and Samples
- D. Section 01370 - Schedule of Values
- E. Section 01400 - Quality Control
- F. Section 01700 - Project Close-Out
- G. Section 01710 - Cleaning
- H. Section 01720 - Project Record Documents
- I. Section 01750 - Closeout Forms

1.03 PROCEDURES

- A. Deliver submittal documents to the Project Manager using the ASD Procore Construction Management Program. Number each submittal with the section number, dash, numerical order of the submittal, example 03300-1. Add an alpha to each resubmittal, example, 03300-1A. Deliver samples to the Project Manager or Architect as directed to the address listed on the cover of the project manual.
- B. Transmit each item with company submittal. Identify Project, Contractor, subcontractor, major supplier; identify pertinent Drawing sheet and detail number and specification section number, as appropriate. Identify deviations from Contract Documents. Provide space for

Contractor and Architect/Engineer review stamps.

- C. Submit initial progress schedules and schedule of values in duplicate prior to issuance of Notice to Proceed. After review by the Architect/Engineer, revise and resubmit as required. Submit revised schedules with each application for payment, reflecting changes since previous submittal.
- D. Comply with progress schedule for submittals related to work progress. Coordinate submittal of related items.
- E. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions. Review with subconsultants/suppliers any inability to meet requirements of project. Find solutions with subconsultants/suppliers making conformance with documents possible. Review solutions with owner and architect for acceptance prior to proceeding with work.

1.04 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit Project Schedule as called for in Section 01311, Project Schedule.

1.05 SCHEDULE OF VALUES

- A. Submit Schedule of Values as called for in Section 01370, Schedule of Values.

1.06 SHOP DRAWINGS, PRODUCT DATA & SAMPLES

- A. Submit in the form as called for in Section 01340.

1.07 MANUFACTURERS' INSTRUCTIONS

- A. When required in individual specification section, submit manufacturers printed instructions for delivery, storage, assembly, installation adjusting and finishing, in quantities specified for product data.

1.08 FIELD SAMPLES

- A. Provide field samples of finishes at project site as required by individual specification sections. Install sample complete and finishes. Acceptable samples in place may be retained in completed work.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

PROJECT SCHEDULE

PART 1. GENERAL

1.01 GENERAL REQUIREMENTS

- A. The work under this Section consists of Project Schedule ("Schedule") requirements including the preparation of a Schedule and Schedule Revisions. The Schedule shall be developed by the Contractor and shall be in accordance with the requirements of this Section 01311. No direct payment will be made to the Contractor for performing and complying with the requirements of this Section 01311.
- B. The Schedule will be prepared by the Contractor for this Project and made available to the Owner. It is intended that the Schedule will reflect the Contractor's actual construction plan. The existence of schedules, networks, vector charts or any other charts or services, shall in no way relieve the Contractor of the responsibility of the Contract Document including, but not limited to the responsibility of completing the Work within the contract time and the responsibility of planning, scheduling and coordinating the Work.
- C. The Schedule shall be in the form of a bar chart or other format approved by the project manager.

1.02 REFERENCES

- A. Associated General Contractors of America, "Construction Planning & Scheduling," Copyright January 1994 (AGC's Manual), also referred to as AGC Publication No. 1107.1. The general principles stated in the AGC's Manual shall be used in preparing and updating the Project Schedule, except that the requirements of this Section shall govern.
- B. Related Requirements:
 - 1. Section 00200 - Project Schedule Milestones Dates
 - 2. Section 00700 and 00800 - General Conditions and Supplementary General Conditions of the Contract for Construction
 - 3. Section 01370 - Schedule of Values

PART 2. PRODUCTS

2.01 PROJECT SCHEDULE

- A. Within fourteen (14) calendar days following the Notice to Proceed, the Contractor shall submit for the Project Manager's review, comment and acceptance, a Project Schedule ("Schedule"). The Schedule shall show the activities of work in sufficient detail to demonstrate that the Contractor has a reasonable and workable plan to complete the Project in accordance with the Project Schedule Milestone Dates set forth under Section 00200 of the Contract Documents. The Contractor shall submit two (2) prints of the Schedule, which shall be neatly organized and time scaled from left to right on 11 in. x 17 in. sheets, or 24 in. x 36 in. sheets, at the Contractor's discretion.
- B. Within five (5) calendar days of receipt of the Schedule, the Project Manager shall meet face to face with the Contractor to review the plan and to determine if there are any concerns regarding the Contractor's plan to execute the work. If a resubmittal of the Schedule is required by the Project Manager, the Contractor shall revise and resubmit the Schedule incorporating the Project Manager's comments within seven (7) calendar days after this review meeting. Progress payments will be withheld until the Contractor submits

an approvable Schedule.

- C. Revisions to the Schedule shall be done in accordance with paragraph 2.02.

2.02 PROJECT SCHEDULE REVISIONS

- A. Should the Contractor, after acceptance of the Schedule, desire to change his plan of construction, he shall submit his proposed revisions to the Project Manager, along with a written rationale for the revisions. Only the requested changes accepted by the Project Manager will be incorporated into the Schedule in the next reporting period.

2.03 TIME IMPACT ANALYSIS FOR CONTRACT MODIFICATIONS, CHANGES OR DELAYS

- A. If the Contractor believes that a change under Article 12 Paragraph 12.1 causes an increase or decrease in the Contractor's time for completing the Work, he shall complete a Time Impact Analysis that demonstrates how the Contractor proposes to incorporate or has incorporated the Change into the Schedule and the time impact, if any, on the Schedule Milestone Dates set forth under Section 00200 of the Contract Documents.
1. The Time Impact Analysis shall demonstrate the time impact based upon the date the Change in Work is directed by the Project Manager; the status of construction at that point in time; and the event time computations of all affected activities. The event times used in the Time Impact Analysis shall be those set forth in the update of the Schedule in effect at the time the Change in Work is directed by the Project Manager.
 2. The Time Impact Analysis is based on an "as-planned" to "as-built" comparison of the event times. In developing an as-built schedule of performance, the Contractor shall utilize actual daily performance data from Schedule Updates and the Contractor's daily construction reports to graphically depict the sequence and manner in which the Contractor actually performed the Work under the Contract.
- B. Activity delays shall not automatically mean that an extension of the Contract Time is warranted or due the Contractor. It is possible that a modification, change or delay will not affect projected or as-built critical activities or cause non-critical activities to become critical. A modification, change or delay may result in only absorbing a portion of the available total float that may exist within an activity chain of the Schedule, thereby not causing any effect on the Contract Time.
- C. Each Time Impact Analysis shall be submitted as follows:
1. Within fourteen (14) calendar days after receipt of a written order designated or indicated to be a change in accordance with Article 12, Changes in the Work;
 2. Within fourteen (14) calendar days after the furnishing of written notice by the Contractor;
 3. Within fourteen (14) calendar days from the commencement of a delay related to unforeseeable conditions; provided the Contractor complies with the requirements of the Contract Documents regarding said condition.
- D. In cases where the Contractor does not submit a written request for extension of time and Time Impact Analysis within the time stated above in Paragraph 2.03, it is mutually agreed that the Change in the Work does not require an extension of the Contract Time.
- E. Acceptance or rejection of each Time Impact Analysis which requests an extension of the Contract Time shall be made by the Project Manager within fourteen (14) calendar days after receipt of each Time Impact Analysis, unless subsequent meetings and negotiations

are necessary. Upon acceptance, the Time Impact Analysis shall be incorporated into the Schedule.

- F. Time Impact Analysis related to requests for an extension of the Contract Time and/or Change Order work shall be incorporated into and attached to the applicable Change Order(s).
- G. No revision to any Schedule Milestone Date or contractually mandated schedule provisions will be permitted without authorization from the Project Manager.

2.04 COMPLIANCE WITH THE SCHEDULE

- A. The Contractor shall furnish sufficient labor and equipment resources, offices, and facilities, and shall work such hours, including night shift and overtime operations as necessary, to ensure the prosecution of the Work in accordance with the Schedule. If the Contractor falls behind in meeting the Schedule, the Contractor shall take such steps as may be necessary to improve its progress. If the Contractor fails to take such steps, the Project Manager may require the Contractor to increase the hours of work, the number of shifts, overtime operations, the number of workers and/or the amount of construction plant and equipment without additional cost to the Owner. The provisions of this subsection shall not be construed as prohibiting work on Saturdays, Sundays, and holidays, if the Contractor so elects and gives 24 hours' notice to the Project Manager.
- B. Failure of the Contractor to comply with the requirements of this Subsection 2.04 shall be a basis for determination by the Project Manager that the Contractor is not prosecuting the Work with such diligence as will ensure completion of the Work in accordance with the requirements of the Contract Documents. Upon such determination, the Project Manager may terminate the Contractor's right to proceed with the Work or any separable part thereof, in accordance with the clause entitled "Termination of Contract" of the Contract Documents, or may take such other actions as he may deem appropriate.

PART 3. EXECUTION (NOT USED)

END OF SECTION

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1. GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 DESCRIPTION

- A. Prepare and submit to the Project Manager with the Construction Schedule, a separate schedule listing dates for submission and of review for shop drawings, product data, and samples, refer to General Conditions 4.12.13.1. Include installing Subcontractors name responsible for that portion of the Work
- B. Submit Shop Drawings, Product Data, and Samples as may be required, whether mentioned specifically in Contract Documents or not.
- C. Individual submittals shall not include material covering more than one section of the specifications.
- D. Products fabricated and/or installed prior to approval of submittals are subject to demand for removal and replacement with approved products by the Contractor at no additional cost to the Owner.
- E. Shop drawing submittal cannot be used for product substitution submittal. See Section 01630 for required procedure.

1.03 RELATED REQUIREMENTS

- A. Section 01311: Project Schedule
- B. Section 01720: Project Record Documents

1.04 SHOP DRAWINGS

- A. Prepare original drawings (by Contractor, subcontractor, manufacturer, supplier, or distributor), which illustrate some portion of the work; showing fabrication, layout, setting or erection details.
- B. Prepare shop drawings for this particular project. Drawings prepared for other projects and revised for this project will be rejected.
- C. When necessary, base shop and setting drawings upon actual measurements taken at site and other job conditions. Show any variations and revisions to Contract Documents that are necessary for proper installation of work. Fabrication or installation of work shall not be started until shop or setting drawings have been reviewed and returned by Architect, with his stamp and comments.
- D. Identify details by reference to sheet and detail, schedule or room numbers shown on Contract Drawings.
- E. Minimum sheet size: 8 ½" x 11". Note: Submit fill-size sheet submittals. Use of 8 ½ " x

11" format subject to readability and approval of architect.

1.05 PRODUCT DATA

- A. Manufacturer's standard schematic drawings:
 - 1. Modify drawings to delete information which is not applicable to project.
 - 2. Supplement standard information to provide additional information applicable to project.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, and other standard descriptive data.
 - 1. Clearly mark each copy and identify pertinent materials, products or models.
 - 2. Show dimensions and clearances required.
 - 3. Show performance characteristics and capacities.
 - 4. Show wiring diagrams and controls.
 - 5. Catalog cuts and descriptive data sheets shall include a complete listing of repair and replacement parts for all equipment and the name and address of a source of supply for parts and service.

1.06 SAMPLES

- A. Physical examples to illustrate materials, equipment or workmanship and to establish standards by which completed work is judged.
- B. Office Samples: Of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of product or material, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and pattern.
- C. Field Samples and Mock-Ups:
 - 1. Erect at project site at location acceptable to Project Manager.
 - 2. Construct each sample or mock-up complete, including work of all trades required in finished work.
 - 3. After review, samples may be used in construction of Project.

1.07 SUBMITTAL REQUIREMENTS

- A. Make all submittals far enough in advance of scheduled dates for installation to provide all required time for review, for securing necessary approvals, for possible revision and resubmittals and for placing orders and securing delivery. Submission of all shop drawings shall be through the General Contractor.
- B. The contractor shall allow at least 14 days for review of original submittals or resubmittals except as follows:
 - 1. Structural steel shop drawings shall be broken down into separate submittal packages for most efficient review and delivered at least two weeks apart.
- C. Submit one (1) reproducible unfolded transparency print of shop drawing. Upon Architects approval, Contractor shall provide five (5) opaque prints for owners use. Transparency will be returned to Contractor for printing and distribution as needed. Additional copies will be returned without review or mark-ups.
- D. Submit four (4) each of samples.

- E. Unless otherwise specifically permitted by the Project Manager, make all submittals in groups containing all associated items. Partial submittals may be rejected.
- F. Accompany submittals with transmittal letter, in duplicate, containing:
 - 1. Date
 - 2. Project Title and number
 - 3. Contractor's name and address
 - 4. The number of each shop drawing, product data and sample submitted
- G. Submittals shall include:
 - 1. Date and revision dates
 - 2. Project title and number
 - 3. The name of:
 - a. Architect
 - b. Contractor
 - c. Subcontractor
 - d. Supplier
 - e. Manufacturer
 - f. Separate detailer when pertinent
 - 4. Identification of product or material
 - 5. Relation to adjacent structure or materials
 - 6. Field dimensions, clearly identified as such
 - 7. Specification section number
 - 8. Applicable standards, such as ASTM number or Federal Specifications.
 - 9. A blank space, for Architect's review stamp

1.08 CONTRACTOR RESPONSIBILITIES

- A. Review shop drawings, product data, and samples prior to submission.
- B. Include noted and required corrections and indicate by stamp and signature that submittal is acceptable to Contractor. Submittals without stamp and signature will be rejected.
- C. Verify:
 - 1. Field measurements.
 - 2. Field Construction criteria.
 - 3. Conformance with specifications.
- D. Coordinate each submittal with requirements of work and Contract Documents.
- E. Contractor's responsibility for errors and omissions in submittals is not relieved by Architect's review and approval.
- F. Contractor's deviations in submittal requirements shall not relieve Contractor from completing Contract requirements.
- G. The submittal documents shall be transmitted using the ASD Procore Construction Management Program. Number the submittals with the CSI Section then a dash then the numerical order (01650-1). Resubmittals shall have the same number with an alpha at the end. (01650-1A).
- H. Contractor shall update the Procore Submittal Log on a weekly basis until Submittal Process is complete.

1.09 RESUBMITTAL REQUIREMENTS

- A. Revise initial drawings as required and resubmit as specified for initial submittal.
- B. Indicate on drawings any changes which have been made other than those requested by the Architect.
- C. Project data and samples: Submit new data and samples as required for initial submittal.

1.10 ARCHITECT'S DUTIES

- A. Review submittals with a turn-around time for review of original or resubmittal of no more than fourteen (14) calendar days, except as indicated in paragraph 1.07 B above.
- B. The review will be for conformance to the design concept and compliance with information given in the Contract Document. The Architect will make notations directly on the reproducible.
- C. The review is intended to foresee unacceptable products to avoid the possibility of their rejection at the site. The review shall not be construed as:
 - 1. Permitting a departure from the Contract Documents, unless specifically so noted.
 - 2. Relieving the Contractor of the responsibility for errors or omissions.
 - 3. Acceptance of an assembly in which an approved item is a part.
 - 4. Approval of variations from previously approved items.
 - 5. Approval of dimensions.
- D. The Architect will review all samples. Such review will be for appearance only. Compliance with all other requirements is the responsibility of the Contractor.
- E. Affix stamps and initials or signatures certifying the review of submittal.
- F. Where the Contract Documents require the design of the structural, mechanical, or electrical systems or components of systems by a supplier, such systems or components shall be designed by a registered professional engineer and all calculations submitted to the Architect for his records, prior to starting fabrication or installation of the work. The Architect will not be responsible for the designs of such other Professionals.

1.11 VARIATIONS FROM CONTRACT DOCUMENTS

- A. See Section 01630 for procedure.
- B. If the Contractor fails to mention variations from the Contract Documents, he will not be relieved of the responsibility for executing the work in accordance with the Contract Documents.

1.12 DISTRIBUTION OF SUBMITTALS AFTER REVIEW

- A. Contractor shall distribute copies of shop drawings and product data which carry Architect's stamp, to:
 - 1. Contractor's file (required)
 - 2. Job-site file (required)
 - 3. Record Documents file (required)
 - 4. Other prime Contractors (as required)
 - 5. Subcontractors (as required)

6. Supplier (as required)
7. Fabricator (as required)
8. Others (as required)

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

AIRBORNE CONTAMINANT CONTROL

PART 1. GENERAL

1.01 SUMMARY:

A. Related sections:

1. Section 02 26 00 Hazardous Materials Assessment
2. Section 02 41 00 Demolition
3. Section 02 82 33 Removal and Disposal of Asbestos Containing Materials
4. Section 02 83 33 Removal and Disposal of Materials Containing Lead
5. Section 02 84 18 Removal and Disposal of Chemical Hazards

B. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

C. Coordinate work with utility companies, and provide temporary utilities if site utilities will be disconnected prior to, or during the building demolition.

1.02 DEFINITIONS:

A. "Airborne Contaminants" are those contaminants listed in 29 CFR 1926.55 and 8 AAC 61.1100 that have the potential to become airborne due to various work activities being performed by the Contractor. Additionally, airborne contaminants include those fumes and odors that may be objectionable to personnel in Occupied Areas of the facility even though they are not listed in the reference regulations. Airborne contaminants may be broadly categorized as Pre-Existing or Activity Generated. Contaminant producing activities include, but are not limited to:

1. Demolition, removal, installation and disposal of walls, floors, ceilings, steel, and other architectural or structural materials.
2. Disturbance or removal of existing settled and concealed dusts.
3. Demolition, relocation, installation and disposal of plumbing, mechanical and electrical systems and equipment.
4. Finish operations such as sanding, preparation, painting, and application of special surface coatings.
5. Any construction activity, which can generate aerosols, dust, smoke, or fumes.
6. Temporary heat sources.
7. Other on-site work operations not described above.

B. "Pre-Existing Contaminants" are those contaminants that are present in the facility prior to the start of any work. These contaminants, including asbestos and lead, are also present in settled and concealed dust throughout the building in areas not subject to routine cleaning, including the roof and inside and on top of architectural, mechanical, electrical and structural elements. The dust generally contains several common components including, but not limited to asbestos, cellulose, cotton, fiberglass, lead, silica and other Particulates Not Otherwise Regulated. Representative dusts throughout the facility have been examined and sampled by an EPA Certified Building Inspector and determined not to be "asbestos debris" from adjacent "Asbestos-Containing Building Materials" (ACBM). Based on similar sampling from similar buildings, the inspector also determined that the dusts are unlikely to contain more than one percent (1%) asbestos by weight, and therefore

are not an asbestos-containing material (ACM). Reference 40 CFR 763.83 for asbestos, and 29 CFR 1926.1153 for silica. Refer to Section 02 26 00, Hazardous Materials Assessment. Dust and debris related to adjacent damaged asbestos containing materials are addressed in Section 02 82 33, Removal and Disposal of Asbestos Containing Materials.

- C. "Activity Generated Contaminants" are those contaminants generated by the various demolition or construction related activities of the Contractor. Examples of typical Activity Generated Contaminants include wood dust (cellulose), cement dust (silica), gypsum dust (particulates not otherwise regulated), paint fumes, and welding fumes. A complete list of regulated air contaminants is available in 29 CFR 1926.55 and 8 AAC 61.1100.
- D. "Work Areas": Areas of demolition, renovation, construction, adjacent staging and storage areas, and passage areas for workers, supplies, and waste. This may include but is not limited to attic spaces, spaces above ceilings, crawl spaces, mechanical and electrical spaces, confined spaces and other spaces not normally accessed or occupied.
- E. "Occupied Areas": Areas as determined by Owner's Representative and as shown on contract drawings. Typically, these include areas adjacent to Work Areas or containment areas, either occupied or used for passage, as well as areas connected to construction area by mechanical system air intake, exhaust, and ductwork. Contaminant control procedures may be relaxed during periods when the building is not occupied as allowed by the Contractor's approved work plan.
- F. "Critical Clean Areas": Areas inside or outside the Work Area with equipment or occupants that cannot tolerate airborne contamination, and are to be maintained under positive pressure by High-Efficiency, Particulate, Air (HEPA) filtered equipment relative to the surrounding air. No "Critical Clean Areas" are anticipated for this project.
- G. "Contractor" is defined to include all trades and all subcontractors performing work on the work site.
- H. "Negative Initial Determination" is a determination made either through air monitoring or other objective data that indicates worker exposure to regulated airborne contaminants are below or expected to be below the regulated limits.

1.03 AIRBORNE CONTAMINANT CONTROL

- A. There is no requirement to remove Pre-Existing Contaminants from the facility. The Contractor may remove Pre-Existing Contaminants from their work areas if they determine that to be a more cost effective means of completing the work.
- B. The Contractors shall establish and maintain control over the generation and containment of all potential airborne contaminants so that workers, facilities, equipment, and operations are not adversely affected, including adverse effects on air monitoring. Construction activities that disturb existing materials or create airborne contaminants must be conducted in Work Areas specifically constructed, ventilated, and/or equipped to prevent the movement of contaminants into Occupied or Critical Clean Areas.
- C. The Contractor shall establish and maintain control over Activity Generated Contaminants within the Work Area to prevent abnormally high levels of airborne contaminants from settling on architectural, mechanical, electrical or structural components within the work areas, or interference with monitoring conducted for other work. The Contractor shall be required to clean all surfaces within a work area where abnormally high levels of Activity Generated Contaminants are deposited.
- D. The Contractor shall ensure that all workers are aware of the Occupied and Critical Clean Areas, the potential air contaminants present, and the means and methods established in the work plan to control those contaminants.

- E. The Contractor shall ensure workers have the proper protective equipment needed for the job being performed.

1.04 TRAINING

- A. The Contractor shall ensure that all workers/trades performing work on the project site are trained in accordance with OSHA standards for hazard communication (29 CFR 1910.1200) and proper protective equipment (29 CFR 1926), as well as engineering controls and work methods required to prevent exposure to regulated air contaminants that might be generated or encountered as a results of their work, including 29 CFR 1926.1153.

1.05 RESPONSIBILITY:

A. Owner's Responsibilities

- 1. The Owner shall identify in contract documents Occupied Areas and Critical Clean Areas prior to allowing the Contractor to begin work. The Contractor shall be notified of all changes to these areas as work progresses.

B. Contractor's Responsibilities:

- 1. Preparing proposed work plans and procedures for control of airborne contaminants during demolition and construction.
- 2. Identifying and implementing specific means and methods of achieving and maintaining control of airborne contaminants.
- 3. Controlling the generation and spread of airborne contaminants from the Contractor's Work Areas.
- 4. Cleaning and decontaminating all areas contaminated as the result of their operation. The Owner has the right to review and approve of any and all clean-up and decontamination procedures, chemicals, and processes.
- 5. Notifying Owner's Representative a minimum of 48 hours prior to starting construction activities that might be expected to produce excess levels of airborne contaminants in Work Area so that precautions may be taken.

1.06 SUBMITTALS:

- A. Submittals Required: Submit the following documentation to the Owner for approval. The submittal shall be coordinated with all the Contractor's subcontractors and trades and be submitted as one submittal for all work covered by this section. **WORK SHALL NOT PROCEED UNTIL THE SUBMITTAL PACKAGE IS APPROVED, AND THE PRE-CONSTRUCTION MEETING HAS BEEN HELD.**

- 1. Shop Drawings: Make all shop drawings accurately and to a scale sufficiently large to show all pertinent features of the work. Shop Drawings shall show:
 - a. Boundaries of each Work Area, Occupied Areas and Critical Clean Areas.
 - b. Location of barriers, negative pressure areas, positive pressure areas, and exhaust fan units (if required).
 - c. Locations of windows, louvers, ducts and other penetrations into Occupied Areas and/or Critical Clean Areas that need to be protected from airborne contamination.
 - d. Disposal Routes.
 - e. Locations of contaminant producing operations like painting or sanding which could be moved away from Occupied Areas.
- 2. Work Plan: The Work Plan shall be prepared for this specific job in the form of checklists and shall include:
 - a. Work area set-up and protection procedures during occupied times.
 - b. Work area set-up and protection procedures during periods of limited occupancy (vacation and holidays).

- c. Work procedures to minimize generation of airborne contaminants, including a written exposure control plan.
- d. Worker protection procedures.
- e. Daily cleanup procedures and activities.
- f. Procedures to follow if air contaminants enter Occupied or Critical Clean Areas.
- g. Exposure assessment procedures if a "negative initial determination" has not been completed (note that negative initial determinations are not allowed related to silica exposure). A record of "negative initial determinations" shall be maintained by the Contractor and be available on the job site for review by the Owner or regulatory agencies.

3. Safety Data Sheets (SDSs): The Contractor shall maintain on the job site, at a location approved by the owner, SDSs for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.

B. Monitoring Results: The Contractor shall submit copies of all air monitoring and testing results to the Owner within 24 hours of receipt of results.

1.07 WORKER PROTECTION:

- A. The Contractor shall review the SDS's for the substances that will be used, data provided by these specifications, proposed means and methods, manufacturers data and other available data to determine the potential for worker exposure.
- B. Conduct air monitoring of worker exposures as necessary to show that workers are not being exposed above the permissible exposure limits established by 29 CFR 1926 and 8 AAC 61.1100 (negative initial determination). Not all contaminants or substances will require exposure monitoring. All sampling by the Contractor shall be at their own cost.
- C. In lieu of worker exposure monitoring, the Contractor may rely on objective data from recognized trade groups, manufacturer or previous exposure monitoring data that establish that worker exposure above the permissible exposure limits is not probable under conditions "closely resembling" the processes, types of materials, control methods, work practices and environmental conditions in the current job.

PART 2. PRODUCTS (Not Used)

PART 3. EXECUTION

3.01 WORK PRACTICES:

- A. General: All construction/demolition work shall be isolated, either by enclosures, and/or work practices and equipment to prevent worker exposures above the permissible exposure limit(s), and prevent the migration of contaminants (dust, fumes, smoke, etc.) into Occupied Areas and Critical Clean Areas of the facility. Exposures to occupants shall be maintained at least 10 times lower than the permissible exposure limit(s) for airborne contaminants. Conduct disturbance of concrete, brick, stone, mortar, etc. in accordance with 29 CFR 1926.1153 related to crystalline silica. If the Contractor's work practices are not effective in controlling airborne contaminants, as evidenced by dust, fumes, smoke, odors, etc. in Occupied or Critical Clean Areas, the Contractor shall provide a sealed barrier at the perimeter of the work area and exhaust the work area to maintain a negative pressure and/or provide a filtered positive pressure to Critical Clean and Occupied areas to keep airborne contaminants out. Maintain a positive pressure of 0.05 inches of water column relative to the air outside the Critical Clean Areas, with a minimum 100 feet per minute velocity through cracks, openings, etc.
- B. Direct exhaust from fume or smoke producing equipment away from building air intakes, windows and other penetrations into Occupied and Critical Clean Areas.

- C. The Contractor shall provide "walk-off" mats, at all connections between Work Areas and Occupied Areas, vacuumed or changed daily when there is traffic between the Work Area and the Occupied Areas.
- D. Enclosures, where used, shall be dust tight and withstand air pressure.
- E. Prohibited Materials: The use or application of the following materials is prohibited:
 - 1. All cleaners and aerosol products not submitted and approved by the Owner.
 - 2. All flammable or chlorinated hydrocarbon solvents, unless approved by the Owner.
- F. Any dust or debris tracked outside of Work Areas into Occupied Areas shall be cleaned up immediately. Contractor shall have the necessary manpower and equipment (dust and wet mops, HEPA vacuums, buckets and clean wiping rags) to keep adjacent Occupied Areas clean at all times.
- G. Dry Sweeping is prohibited. All vacuums used for cleaning shall be equipped with HEPA filters.
- H. Traffic between Work Areas and Occupied Areas shall be kept to a minimum. Keep doors between such areas closed at all times. Transport refuse through Occupied Areas in covered containers.
- I. Notify the Owner's Representative immediately of any release of airborne contaminants into Occupied Areas.

3.02 ENFORCEMENT:

- A. The Contractor shall periodically inspect Occupied Areas at the perimeter of the work area and Critical Clean Areas to verify that airborne contaminants have not spread into those areas.
- B. Failure to properly maintain airborne contaminant control in Work Areas, Occupied or Critical Clean Areas will result in issuance of a written warning. If the problem is not corrected immediately, the Owner will have cause to stop work.
- C. Failure of the Contractor to correct deficiencies in controlling airborne contaminants will result in corrective action taken by the Owner and deduction of all costs from the Contract.

3.03 WORK STOPPAGE:

- A. The Contractor shall stop work and notify the Owner whenever their work has caused visible dust, smoke, fumes or objectionable odors in Occupied or Critical Clean Areas.
- B. When such work stoppage occurs, the area shall be restored to its original condition by the Contractor at no expense to the Owner. The Contractor is responsible for removing dust, fumes and debris that were generated as a result of their work.

3.04 WORK COMPLETION:

- A. Provide thorough cleaning of finished surfaces that become exposed to dust or other airborne contaminants. Cleaning of Pre-Existing contaminants is not required.
- B. Removal of construction barriers and airborne contaminant control equipment shall be performed in a manner to minimize disturbance of airborne contaminants into occupied spaces. HEPA vacuum and clean all finished surfaces free of dust after the removal of barriers and equipment.

END OF SECTION

SCHEDULE OF VALUES

PART 1. GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 REQUIREMENTS INCLUDED

- A. Procedures for preparation and submittal of Schedule of Values.

1.03 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions and Section 00800 Supplemental Conditions of the Contract for Construction.
- B. Section 01311 – Project Schedule.

1.04 FORMAT

- A. Schedule of Values shall be submitted on ASD Form 100B.

1.05 CONTENT

- A. List installed value of each major item of work and each subcontracted item of work as a separate line item to serve as a basis for computing values for progress payments. Round off values to nearest dollar.
- B. For each major subcontract, list products and operations of that subcontract as separate line items.
- C. Include work allowances within line item of work.
- D. Coordinate listings with progress schedule.
- E. Component listings shall each include a directly proportional amount of Contractor's overhead and profit.
- F. For items on which payments will be requested for stored products, list the cost of stored products.
- G. The sum of values listed shall equal total contract sum.
- H. In addition to the above, values shall be listed for the following close out items.
 - 1. As-builts.
 - 2. O & M Manuals.
 - 3. Warranties.
 - 4. Landscape Maintenance Warranty.
 - 5. Owner Training.
 - 6. Demobilization (If mobilization is itemized).
 - 7. Project close-out must retain a minimum of \$25,000.00.

1.06 SUBMITTAL

- A. Transmit under transmittal letter. Identify project by title and contract number.

1.07 SUBSTANTIATING DATA

- A. When the Project Manager requires substantiating information, submit data justifying line item amounts in question.
- B. Provide one copy of data with cover letter for each copy of application. Show application number, date and line item by number and description.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

CONSTRUCTION PHOTOGRAPHS

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Construction Photographs.
- B. Submittals.

1.02 RELATED REQUIREMENTS

- A. Section 01720 - Project Record Documents

1.03 PHOTOGRAPHY

- A. Provide photographs of construction throughout progress of work.
- B. Take photographs prior to covering completed work.
- C. Take photographs at beginning and completion of elements of construction.
 - 1. Asbestos Abatement process indicating the phases of abatement including:
 - a. Existing Conditions
 - b. Preparation Prior to Start of Work
 - c. Work in Progress
 - d. Completed Work
 - e. Equipment used for Abatement Processes
 - 2. Roof demolition
 - a. Repairs
 - b. Documentation of interim building protection measures
 - c. Work in Progress
 - d. Completed work
 - e. Include roof designation and locations
 - 3. Air infiltration and/or vapor barrier installation
 - 4. Insulation installation
 - 5. Final completion.
- D. The Contractor, on a daily basis, shall photograph the demolition and abatement process. For their own use and distribution, the Project Manager shall on a regular basis, direct photographs and/or video recordings of construction operations and work in progress.

1.04 IMAGES

- A. Digital images to be uploaded to the ASD Procore Construction Management Program Project Folder daily.
- B. Photo file name to include location, item photographed and orientation of view.

1.05 TECHNIQUE

- A. Provide factual presentation.
- B. Provide correct exposure and focus, high resolution and sharpness, maximum depth of field and minimum distortion.
- C. The Contractor shall furnish access, labor and facilities to assist photographer(s). Photographs shall be taken with a Digital type camera with flash attachment in working order.
 - 1. Furnish the Project Manager with a quantity equal to minimum ten (10) photographs per work area per day ISO appropriate to lighting conditions.

1.06 VIEWS

- A. Consult with Project Manager for instructions on views required.
- B. Locations of photos. It is preferred to have similar angles and locations of existing conditions, in progress and complete photos.

1.07 SUBMITTALS

- A. All photos to be loaded in Procore and labelled.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

QUALITY CONTROL

PART 1. GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions of the Contract for Construction and Section 00800 – Supplemental Conditions to the Contract for Construction.
- B. Section 01300 - Submittals.
- C. Section 01410 - Testing Laboratory Services.
- D. Section 01420 - Special Inspections.

1.02 GENERAL REQUIREMENTS

- A. The contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with this section. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence.

1.03 QUALITY CONTROL PLAN

- A. The Contractor shall furnish for review by the Owner, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of this section. The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used.
 - 1. Content of the CQC Plan: The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:
 - a. A description of the quality control organization, including the name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function, including the person assigned responsibility of CQC manager.
 - b. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Owner.)
 - c. Procedures for tracking preparatory and follow-up control phases, verification, and acceptance tests, including documentation.
 - d. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
 - e. Reporting procedures, including proposed reporting formats.
 - f. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section.
 - 2. Acceptance of Plan: Acceptance of the Contractor's plan is required prior to the

start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Owner reserves the right to require the Contractor to make changes in the CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3. Notification of Changes: After acceptance of the CQC Plan, the Contractor shall notify the Owner in writing of any proposed change. Proposed changes are subject to acceptance.

1.04 COORDINATION MEETING

- A. After the Preconstruction Conference and before start of construction, the Contractor shall meet with the Project Manager to discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 15 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship with the Owner's special inspection personnel. Minutes of the meeting shall be prepared by the Contractor and signed by both the Contractor and the Project Manager.

1.05 QUALITY CONTROL ORGANIZATION

- A. CQC Manager: The Contractor shall identify as CQC Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC Manager shall be a person with a minimum of ten (10) years' experience in construction with a minimum of three (3) years' experience in Quality Control Management or Construction Inspection, preferably with some formal Quality Control training. This CQC Manager shall be on the site at all times during construction and shall be employed by the prime Contractor.
- B. CQC Personnel: In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC Manager for the following areas: electrical, mechanical, structural, and architectural. Each of these individuals must have either an engineering degree in their respective field and two years of experience or five (5) years of related experience. These individuals are to be responsible to the CQC Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with this section. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan.
- C. ASD CQC Testing Requirements: See Attachment 1 below.

ASD CQC TESTING REQUIREMENTS

Attachment 1

MATERIAL TESTED	CHARACTERISTIC TESTED	SAMPLE FREQUENCY	SAMPLING POINT	REPORT DUE
CLASSIFIED FILL MATERIAL AND BACKFILL (TYPE II, TYPE IIA, BLENDED, ETC.)	GRADATION	1 PER SOIL TYPE AND NOTABLE CHANGE IN CHARACTERISTICS	PRIOR TO PLACEMENT	BEFORE USE ON PROJECT
	MOISTURE DENSITY (PROCTOR)			
	COMPACTION/DENSITY	STRUCTURAL = 1 PER LIFT & PER 500 S.F. TRENCHES = 1 PER LIFT & PER 150 L.F. FLATWORK = 1 PER LIFT & PER 5000 S.F.	IN PLACE	PRIOR TO NEXT LIFT
LEVELING COURSE (D-1, RAP, ETC.)	GRADATION	1 PER SOIL TYPE AND NOTABLE CHANGE IN CHARACTERISTICS	PRIOR TO PLACEMENT	BEFORE USE ON PROJECT
	MOISTURE DENSITY (PROCTOR)			
	COMPACTION/DENSITY	FLATWORK = 1 PER LIFT & PER 5000 S.F.	IN PLACE	PRIOR TO NEXT LIFT
STRUCTURAL IN-SITU BASE OF EXCAVATION (BOTTOM OF HOLE)	GRADATION	1 PER IN-SITU STRUCTURAL BOTTOM OF HOLE AND NOTABLE CHANGE IN CHARACTERISTICS	PRIOR TO PLACEMENT	BEFORE BUILDING UPON
	MOISTURE DENSITY (PROCTOR)			
	COMPACTION/DENSITY	BASE OF EX. = 1 PER FOUNDATION AREA	IN PLACE	BEFORE BUILDING UPON
STRUCTURAL CONCRETE	SAMPLING	1 MINIMUM PER PLACEMENT, PER DAY (1-25 C.Y.), 1 EVERY 50 C.Y. THEREAFTER. 1 AFTER EACH ADDITION OF ADMIXTURE OR WATER (SLUMP AND AIR ONLY AFTER ADDING ONLY WATER)	POINT OF PLACEMENT (NOT @ TRUCK)	REPORT-24 HRS VERBAL-TIME OF TEST
	SLUMP			
	AIR CONTENT			
	TEMPERATURE			
	COMP. STRENGTH			7 & 28 DAYS
ARCHITECTURAL & CIVIL CONCRETE	SAMPLING	1 MINIMUM PER PLACEMENT, PER DAY (1-25 C.Y.), 1 EVERY 100 C.Y. THEREAFTER.	POINT OF PLACEMENT OR TRUCK CHUTE	REPORT-24 HRS VERBAL-TIME OF TEST
	SLUMP			
	AIR CONTENT			
	TEMPERATURE			
	COMP. STRENGTH			7 & 28 DAYS
STRUCTURAL GROUT (BASEPLATES, CMU, ETC.)	SAMPLING	1 PER PLACEMENT, PER DAY	BATCH POINT (ENSURE BATCH CONFORMS TO MFR SPECS)	REPORT-24 HRS VERBAL-TIME OF TEST
	SLUMP			
	AIR CONTENT			
	TEMPERATURE			
	COMP. STRENGTH			7 & 28 DAYS

MATERIAL TESTED	CHARACTERISTIC TESTED	SAMPLE FREQUENCY	SAMPLING POINT	REPORT DUE
AC PAVING	GRADATION	1 PER PLACEMENT, PER DAY AND EVERY 700 TONS THEREAFTER.	BEHIND PAVER & PRIOR TO COMPACTION	REPORT-24 HRS VERBAL-TIME OF TEST OR OBSERVATION
	CONTENT			
	COMPACTION/DENSITY	1 PER 5000 S.F.	AFTER FINAL ROLL	
	VISUAL	OBSERVE & DOCUMENT DEPTH, AGGREGATE SIZE, VOIDS IN AGGREGATE, OIL POOLING, ETC. VERIFY BATCH TICKET MIX DESIGN & PROJECT	DURING PLACEMENT	
CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED FOR RETESTS, REINSPECTIONS, REPLACEMENT OF NON-CONFORMING PRODUCTS. OWNER EMPLOYED SPECIAL INSPECTION VERIFICATION AND TESTING IS IN ADDITION TO THE CONTRACTOR'S QUALITY CONTROL TESTING. SPECIAL INSPECTION IN NO WAY DIMINISHES OR REDUCES THE CONTRACTOR'S QUALITY CONTROL OBLIGATIONS.				

1.06 CONTROL

- A. Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least two phases of control shall be conducted by the CQC Manager for each definable feature of work as follows:
1. Preparatory Phase: This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved, and after copies are at the work site. This phase shall include:
 - a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by the Owner until final acceptance of the work.
 - b. A review of the contract drawings.
 - c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
 - d. Review of provisions that have been made to provide required control inspection and testing.
 - e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
 - f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
 - g. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Documentation of construction tolerances and workmanship standards for that feature of work.
 - h. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Project Manager.

- i. Discussion of the initial control phase.
 - j. The Owner shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC Manager and attended by the Superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.
2. Follow-up Phase: Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted, and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

1.07 TESTS

- A. Testing Procedure: The Contractor shall provide inspections, tests, and similar quality control services, specified in individual Specification Sections, and required by governing authorities, (Costs for these services shall be included in the Contract Sum). Upon request, the Contractor shall furnish to the Owner duplicate samples of test specimens for possible testing by the Owner. Testing includes operation and/or acceptance tests when specified. The Contractor shall perform the following activities and record and provide the following data:
 - 1. Verify that testing procedures comply with contract requirements.
 - 2. Verify that facilities and testing equipment are available and comply with testing standards.
 - 3. Check test instrument calibration data against certified standards.
 - 4. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
 - 5. Results of all tests taken, both passing and failing, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Project Manager, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Project Manager. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.
- B. Retesting: The Contractor is responsible for retesting where results of required inspections, tests, or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
- C. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests, and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:

1. Providing access to the Work, approved plans, and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
 2. Providing facilities for storage of all special inspection reports at the Project site and make available for review by the authorities having jurisdiction.
 3. Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.
 4. Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.
 5. Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
 6. Security and protection of samples and test equipment at the Project site.
- D. Correction of Work: The Contractor shall bear all costs of correcting all Work identified as defective or as failing to conform to the Contract Documents, including any additional Owner Inspection Costs, and additional compensation for the Architect's and/or Project Manager's additional services made necessary thereby.
- E. Qualification for Laboratory Agencies: Engage inspection and testing service agencies, including independent testing laboratories free of conflict on interests with the General Contractor, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and testing to be performed.
1. Each independent inspection and testing agency engaged on the Project shall be authorized by the authorities having jurisdiction to operate in the State of Alaska and the Municipality of Anchorage.
 2. The Owner reserves the right to direct the specific location or area of work to be tested in accordance with contract requirements.

1.08 SPECIAL INSPECTIONS

- A. The Owner will provide Special Inspections, tests, and similar quality control services as identified in Section 01420, "Special Inspections". Costs for the Special Inspection services are not included in the Contract Sum.
- B. Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Specification Sections shall cooperate with the Owner's Representative and Contractor in performance of its duties and shall provide qualified personnel to perform required inspections and tests.
1. The agency shall notify the Project Manager, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. The agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.
 3. Special Inspection agency shall not perform any duties of the Contractor, nor be under contract to perform testing services required of the Contractor.
- C. Coordination: The Contractor and each agency engaged to perform inspections, tests, and similar services shall coordinate the sequence of activities to accommodate required services. In addition, the Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.

1. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.
2. The Contractor shall notify the Owner's Special Inspectors, and the Owner, in writing 72 hours prior to required special inspection and coordinate with these inspectors so there are no additional project costs, schedule impacts or delays. The Contractor shall also be responsible to coordinate with the special inspectors and the Owner to identify on the construction schedule when these inspections shall occur.

1.09 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship of specified quality.
- C. Secure products in place in positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.10 MANUFACTURER'S INSTRUCTIONS

- A. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from the Project Manager before proceeding.

1.11 MANUFACTURER'S FIELD SERVICE

- A. When required by individual Specifications Section, submit manufacturer's certificate, signed by responsible officer of the Manufacturer, that products meet or exceed specified requirements.
- B. When required by manufacturer, have manufacturer provide qualified representative to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment as applicable. Manufacturer Field Representative shall make a written report of observations and recommendations to the Project Manager.

1.12 SAMPLE PANELS AND MOCK-UPS

- A. Sample panels and/or mock-ups shall be used to establish uniform level of workmanship and finish color and texture. Accepted sample or mock-up shall serve as minimum standard of quality for subsequent work.
- B. Work on any Section requiring a sample panel or mock-up shall be approved in writing by the Owner.
- C. Sample panels or mock-ups may be requested by the Owner even though not specifically required of Specification Section to clarify level of workmanship, color, or texture.
- D. Tests shall be performed in accordance with Section 01410 and this section.

1.13 OBSERVATION

The following stages of construction specifically require observation by the Architect, Owner, and other Authorities having jurisdiction. Provide the indicated notice to the Project Manager prior to

commencing work on the phase or upon completion as appropriate:

- A. Stages that require two day notice include:
 - 1. Completion of utility trench excavation prior to placement of bedding.
 - 2. Completion of utility pipe installation prior to backfill.
 - 3. Completion of subdrain system's drainage mat and perforated pipe prior to backfill.
 - 4. Completion of driveway, parking lot and sidewalk excavation, installation of geotextile fabric and backfill prior to placement of pavement.
 - 5. Completion of asphalt concrete pavement placement.
 - 6. Completion of portland cement concrete pavement placement.
 - 7. Completion of building excavation, geotextile fabric installation, and backfill prior to placement of concrete floor slab.
 - 8. Completion of excavation forming prior to concrete placement.
 - 9. Completion of concrete masonry, as damp-proofing work is beginning.
 - 10. Wall framing and sheathing completed, observation of shear wall fastening and connections.
 - 11. Mechanical and electrical rough-in and wall blocking, prior to cover.
 - 12. Insulation and vapor barrier installation prior to cover, observation required as work progresses, notify as phases are complete.
 - 13. Completion of mock-ups and finishes as mock-ups and areas are completed.
 - 14. Prior to beginning roofing.
- B. Stages that require five day notice include:
 - 1. Substantial Completion.
 - 2. Operational instructions.
 - 3. Final Completion.

1.14 COMPLETION INSPECTION

- A. Punch-Out Inspection: Near the end of the work, or any increment of the work established by a time stated in the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by Section 01400, paragraph 1.15 A.4. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Owner that the facility is ready for the Owner Substantial inspection.
- B. Final Inspection: The Contractor's Quality Control Inspection personnel shall be in attendance at the final inspection.

1.15 DOCUMENTATION

- A. The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:
 - 1. Contractor/Subcontractor and area of responsibility.
 - 2. Operating equipment with hours worked, idle, or down for repair.
 - 3. Work performed each day, giving location, description, and by whom.
 - 4. Test and/or control activities performed with results and references to

specifications/drawings requirements. The control phase shall be identified. List of deficiencies noted, along with corrective action.

5. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawing requirements.
6. Offsite surveillance activities, including actions taken.
7. Instructions given/received and conflicts in plans and/or specifications.
8. Any other remarks impacting quality control.
9. Contractor's verification statement.

- B. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Owner on a weekly basis within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. Reports shall be signed and dated by the CQC Manager. The report from the CQC Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

1.16 NOTIFICATION OF NONCOMPLIANCE

- A. The Project Manager will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Project Manager may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

TESTING LABORATORY SERVICES

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor will employ and pay for the services of an independent testing laboratory, free of conflict of interests with the General Contractor, to perform specified testing.
- B. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the work of the contract.
- C. Inspection, sampling and testing required as called for in the following technical sections.
- D. The Contractor shall pay for re-inspections and re-testing required because of defective work or ill-timed notices.

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions of the Contract for Construction, Article 7.7.
- B. Inspections and testing required by laws, ordinances, rules, regulations, orders, project Contract Documents, or approvals of public authorities.
- C. Certification of Products: Respective Sections of Specifications.
- D. Test, Adjust, and Balance of Equipment: Respective Sections of Specifications.
- E. Each Specification Section Listed: Laboratory test required, and standards for testing.

1.03 QUALIFICATIONS OF LABORATORY

- A. Independent laboratory acceptable to Owner, Architect and Building Official.
- B. Meet "Recommended Requirements for Independent Laboratory Qualification" latest edition, published by American Council of Independent Laboratories, 1300 "I" Street N.W., Washington, D.C. 20005.
- C. Meet ASTM E-329 latest edition, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as used in Construction."

1.04 LABORATORY'S DUTIES

- A. Laboratory authorized to operate in Alaska, with a full-time engineer registered in Alaska on staff to review services.
- B. Ascertain and certify compliance with Contract Documents.
- C. Promptly submit, unless otherwise indicated, written Inspection and Test Report to each of the following within forty-eight hours of inspection:
 - 1. Owner: Two (2) copies
 - 2. Architect: Two (2) copies

3. Contractor: Two (2) copies or as required

D. Include the following on Test Reports:

1. Date issued.
2. Project title and location.
3. Testing Laboratory name and address.
4. Inspector's name.
5. Date of inspection or sampling.
6. Record of temperature and weather.
7. Date of test.
8. Identification of product tested.
9. Test location in Project.
10. Type of inspection or test.
11. Observations regarding compliance with Contract Documents.

E. Laboratory is not authorized to:

1. Release, revoke, alter, or enlarge on Contract Document requirements.
2. Approve or accept any portion of work.
3. Assume any duties of Contractor.
4. Stop Work.

1.05 CONTRACTOR'S DUTIES

- A. Cooperate with laboratory personnel, provide access to work, and to Manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representation samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other materials mixes which require control by the testing laboratory.
- D. Furnish copies of products test reports as required.
- E. Furnish incidental labor and facilities:
 1. To provide access to work to be tested.
 2. To obtain and handle samples at the project site or at the source of the project to be tested.
 3. To facilitate inspections and tests.
 4. For storage and curing of test samples.
- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests. Twenty-four hour minimum notification.
 1. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence.
- G. Notify Architect and Owner a minimum twenty-four hours in advance of any testing.
- H. Repair test holes to match original conditions.

- I. Quality Control is the responsibility of the General Contractor. The General Contractor should employ a testing firm to provide testing as required to monitor and maintain his own quality control program, as well as satisfy the specific requirements of the Contract Documents.

1.06 OWNER'S TESTING LABORATORY SERVICES

- A. The Owner may also employ and pay for the services of an Independent Testing Laboratory to perform specified testing as indicated in the Supplementary General Conditions and in this section. This testing service will be employed for Quality Assurance Only. QUALITY CONTROL IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- B. The Contractor shall cooperate with the Owner's laboratory to facilitate the execution of its services.
- C. A copy of the Owner's laboratory written report of each test will be distributed to the Contractor.
- D. When initial tests indicate work does not comply with the Contract Document, all additional tests required, until tests pass, shall be at the expense of the Contractor.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

SPECIAL INSPECTIONS

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Purpose
- B. Types of Work
- C. Owner Responsibilities
- D. Engineer or Architect of Record Responsibilities
- E. Contractor Responsibilities
- F. Special Inspector Responsibilities

1.02 RELATED REQUIREMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division - 1 Specification Sections, apply to this Section.
 - 1. Section 00700 - General Conditions and Section 00800 – Supplemental Conditions of the Contract for Construction.
 - 2. Section 01300 - Submittals
 - 3. Section 01400 - Quality Control Services

1.03 REFERENCES

- A. International Building Code (IBC) - SECTION 1704 - SPECIAL INSPECTIONS
- B. Uniform Administrative Code (UAC) - SECTION 306 - SPECIAL INSPECTIONS

1.04 PURPOSE OF SPECIAL INSPECTIONS

- A. In accordance with IBC Section 1704.1 General "In addition to the inspections required by Section 109, the owner or the engineer or architect of record acting as the Owner's agent shall employ one or more special inspectors who shall provide inspections during construction on the types of work listed under 1704."

1.05 TYPES OF WORK

- A. Except as provided in IBC Section 1704, the types of work listed below shall be inspected by a Special Inspector.
 - 1. Concrete.
 - 2. Bolts installed in concrete.
 - 3. Reinforcing steel in concrete.
 - 4. Structural welding.
 - 5. High-strength bolting.
 - 6. Structural masonry.
 - 7. Spray-applied fireproofing.
 - 8. Special grading, excavation, and filling.

- B. Continuous and Periodic Special Inspection and Approved Fabricators shall be a part of the Special Inspection requirements.

1.06 OWNER RESPONSIBILITIES

- A. The Owner or the Engineer or Architect of Record acting as the Owner's agent shall employ one or more Special Inspectors who shall provide inspections during construction on the types of work listed.
- B. The Owner shall be responsible for providing a full set of drawings and specifications to each Special Inspector.

1.07 ENGINEER OR ARCHITECT OF RECORD

- A. The Engineer or Architect of Record, under the Owner's direction, may be required to employ one or more Special Inspectors who shall provide inspections during construction on the types of work listed under IBC Section 1704.
- B. The Engineer or Architect of Record, under the Owner's direction, may be responsible for coordinating the Pre-Construction Meeting, with the Contractor, to include Special Inspectors for the purpose of reviewing the Special Inspection Program and responsibilities of each member.
- C. The Engineer or Architect of Record is responsible for clearly indicating the design parameters and material selection on the project plans and/or specifications.
- D. The Engineer or Architect of Record shall determine when and where Special Inspection is necessary in order to meet requirements of the Code.
- E. It shall be the responsibility of the Architect or Engineer of Record to prepare a typewritten Special Inspection Program for submittal to the Building Official for review and approval (UAC 302.5). Such approval shall be obtained prior to issuance of a Building Permit.
- F. Design changes required to correct non-conforming work already incorporated into the completed construction, shall be identified to the Building Official for review and approval as a Change Order. Such Changes shall be generated by the Engineer or Architect of Record.

1.08 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall be responsible for calling a Pre-Construction meeting to review Special Inspection requirements as they pertain to the project. Attendees shall include the Contractor's Construction Supervisor, ASD Project Manager, the Engineer or Architect of Record, the Building Safety Division Inspector assigned to the project, all Special Inspectors, and any subcontractors who will actually be constructing items requiring Special Inspection. This meeting shall not be considered a substitute for any pre-construction meeting held between the Contractor and the Owner and Engineer or Architect of Record although they may coincide.
- B. The Contractor shall be responsible for notifying the Special Inspector or special inspection firm regarding required special inspections. Notice shall be a minimum of 24 hours in advance.
- C. The Contractor shall have on site at all times, an approved set of plans and construction documents available to the Special Inspector for the purpose of reference or clarification.

- D. The Contractor shall be responsible for retaining, on site, a copy of all Special Inspection records submitted by the Special Inspector.

1.09 SPECIAL INSPECTOR RESPONSIBILITIES

- A. The Special Inspector shall observe the work assigned for conformance with the approved design drawings and specifications.
- B. Special Inspectors requiring certification by an agency such as ICBO, ACI, or AWS shall carry current certification with them while performing the Work on site.
- C. The Special Inspector shall remain on site at all times when work requiring Special Inspection is in progress.
- D. The Special Inspector shall immediately bring all nonconforming items of work or material to the immediate attention of the Contractor for correction.
- E. The Special Inspector or Inspection Firm shall submit required written reports to the Building Official (two copies), the Owner, and the Engineer or Architect of Record within 48 hours of inspection.
- F. Special Inspectors or Inspection Firms shall submit a final signed report to the Building Safety Division stating that all items requiring Special Inspection were, to the best of their knowledge, in conformance with the approved design drawings, specifications, approved change orders and the applicable workmanship provided in the International Building Code. Items not in conformance, unresolved items, and any discrepancies in inspection coverage shall be specifically itemized in the final report.
- G. Special Inspectors shall meet all certification requirements stated in the Special Inspection Program and required by the Municipality of Anchorage Building Safety Division and shall maintain certification at all times throughout the project.

END OF SECTION

VALUE ENGINEERING

PART 1. GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions of the Contract for Construction.
- B. Section 01300 - Submittals.

1.02 VALUE ENGINEERING, GENERAL

- A. This section becomes effective after the award of the contract and provides a manner for the Owner and the Contractor to realize savings.
- B. The Contractor is required to develop, prepare, and submit Value Engineering Change Proposals (VECP) for at least the following items:
 - 1. Segregated building materials that will not be transported outside of the state of Alaska.
 - 2. Equipment in the boiler room for salvage or sale.
 - 3. Equipment in the Generator room for salvage or sale.
 - 4. The Above Ground Fuel Oil Storage Tank for salvage or sale.
 - 5. Any items not considered for VE will be demolished and transported to a landfill.
- C. The Contractor shall use its own resources to develop and submit any Value Engineering Change Proposals (VECP's). The contract provides for sharing of savings and for payment of the Contractor's allowable development and implementation costs only if a VECP is accepted. The value engineering approach should not in itself increase costs to the Owner.

1.03 DEFINITIONS

- A. Contractor's development and implementation costs means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Owner acceptance of a VECP.
- B. Owner costs means those costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, logistics, design, or other support. The term does not include the normal administrative costs of processing the VECP.
- C. Net savings means the total calculated savings of the VECP.
- D. Value Engineering means an analysis of the functions of a system, product, item of equipment, or other associated aspect of this contract, performed by Contractor personnel, directed at improving performance, reliability, quality, safety, and life-cycle costs.
- E. Value Engineering Change Proposal (VECP) means a proposal that –
 - 1. Requires a change to the contract to implement; and
 - 2. Results in reducing the overall contract cost to the Owner without impairing essential functions or characteristics in the contract.

1.04 VALUE ENGINEERING CHANGE PROPOSAL PREPARATION

- A. The Contractor is encouraged to submit a brief description of each VECP for review prior to formal preparation. The Owner will then provide preliminary comments to the Contractor.
- B. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs 1. through 6. below.
 - 1. A description of the difference between the existing contract requirement and the proposed requirement, the comparative advantages and disadvantages of each, a justification when an item or system changes function or characteristics, the effect of the change on the end performance, and any pertinent objective test data.
 - 2. A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
 - 3. Identification of the discipline(s) to which the VECP applies, with signatures indicating review by subcontractors in affected disciplines.
 - 4. A separate, detailed cost estimate for
 - a. the affected portions of the existing contract requirement and
 - b. the VECP.
 - 5. A description and estimate of costs the Owner may incur in implementing the VECP, such as test and evaluation, redesign, plan review and permit fees, and operating and support costs. These owner costs include any direct costs associated with the VECP and other costs anticipated due to impact on associated aspects of construction.
 - 6. A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule. The schedule impact should include any MOA requirements for additional review and approval.
- C. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts.

1.05 SUBMISSION

- A. The Contractor shall submit VECP's to the Project Manager.

1.06 OWNER'S ACTIONS

- A. The Project Manager will notify the Contractor of the status of the VECP within 10 calendar days after receipt. If additional time is required, the Project Manager will notify the Contractor within the 10-day period and provide the reason for the delay and the expected date of the decision. The Owner will not be liable for any delay in acting upon a VECP or for not acting upon a VECP.
- B. If the VECP is not accepted, the Project Manager will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP in writing, in whole or in part, at any time before it is accepted by the Owner. The Project Manager may require that the Contractor provide written notification before undertaking expenditures for VECP effort.

- C. Any VECP may be accepted, in whole or in part, by the execution of a change order to this contract. Until such a contract change applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Owner.

1.07 SHARING RATES

- A. If a VECP is accepted, the Contractor shall share in net savings at the rate of 50/50. The Contractor's share would be 50% and the Owner's share would be 50%.

1.08 CALCULATION OF SAVINGS

- A. Savings are calculated based upon the following factors:
 - 1. VECP direct savings.
 - 2. Owner costs.
 - 3. Contractor development and implementation costs.
- B. Each VECP should have a minimum estimated net savings of \$10,000 to be considered.

PART 2. PRODUCTS (Not Applicable)

PART 3. EXECUTION (Not Applicable)

END OF SECTION

TEMPORARY FACILITIES AND CONTROLS

PART 1. GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. Definitions: Specific administrative and procedural minimum actions are specified in this section as extensions of provision in General Conditions and other Contract Documents. These requirements have been included for special purposes as indicated. Nothing in this section is intended to limit types and amounts of temporary work required, and no omission from this section will be recognized as an indication that such temporary activity is not required for successful completion of the work and compliance with requirements of Contract Documents. Provisions of this section are applicable to, but not by way of limitation, utility services, construction facilities, support facilities, and security-protection provisions.

1.02 QUALITY ASSURANCE

- A. In addition to compliance with governing regulations and rules/recommendations of utility companies, comply with specific requirements indicated and with applicable local codes and industry standards for construction work.

1.03 JOB CONDITIONS

- A. General: Establish and initiate use of each temporary facility at time first reasonably required for proper performance of the work. Terminate use and remove facilities at earliest reasonable time, when no longer needed or when permanent facilities have, with authorized use, replaced the need.
- B. Conditions of Use: Install, operate, maintain, and protect temporary facilities in a manner and at locations which will be safe, non-hazardous, sanitary, and protective of persons and property, and free of deleterious effects.
- C. Pay all costs for such general services and temporary facilities, except as otherwise specified, until final acceptance of the work and/or Owner's beneficial occupancy of completed portions of the work.

PART 2. PRODUCTS

2.01 MATERIALS

- A. Materials may be new or used but must be suitable and adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.
- B. New electrical utility drops and new transformers will be installed by the local electric utility and is not a part of the scope of work. Permanent electrical service and distribution from the new transformer is required and made a part of Scope of Work to be complete for Substantial Completion.

PART 3. EXECUTION

3.01 TEMPORARY FACILITIES

A. Sanitary Facilities

1. Provide and maintain temporary sanitary toilets in number required, location directed, and types approved by the regulatory authorities.

B. Electricity

1. Make all arrangements and pay for temporary electrical service to the construction area. Provide all equipment necessary for temporary power and lighting, and pay all charges for this equipment, and the installation thereof. Verify that electrical service is of adequate capacity for all construction tools and equipment without overloading the facilities.
2. Provide power distribution as required throughout for construction operations of all trades. The termination of power distribution shall be at convenient locations in the building. Terminations shall be provided for each voltage supply complete with circuit breakers, disconnect switches, and other electrical devices as required to protect the power supply system.
3. A temporary lighting system shall be furnished, installed and maintained as required to satisfy minimum requirements of safety and security. The temporary lighting system shall afford general illumination in all building areas and shall supply no less than 1-watt per square foot of floor area for illumination in the areas of the building where work is being performed.
4. All temporary equipment and wiring for power and lighting shall be in accordance with the applicable provisions of the governing codes. All temporary wiring shall be maintained in a safe manner and utilized so as not to constitute a hazard to persons or property.
5. When permanent electrical power and lighting systems are in operating condition they may be used for temporary power and lighting for construction purposes, provided that Contractor assumes full responsibility for the entire power and lighting systems and pays for power consumption until final acceptance or beneficial occupancy, whichever is first.
6. At the completion of the construction work all temporary wiring, lighting and other temporary electrical equipment devices shall be removed.

- C. Heating, Cooling and Ventilation: Furnish by approved methods, temporary heat including fuel and power as required to protect materials and work from dampness and cold and to dry out the facility. New permanent heating system may be used for this purpose; however, such use shall not relieve Contractor of Guarantee responsibilities. Refer to individual sections for temperatures to be maintained for the work of the various trades. If the permanent heating is used for temporary heat, ducts shall be completely cleaned of dust and dirt and all filters replaced if "throw-away" type or cleaned if permanent type prior to occupancy.

D. Water Service

1. Provide all water necessary for construction purposes.
2. Furnish drinking water with suitable containers and cups for use of employees. Drinking water dispensers shall be conveniently located in the building where work is in progress.

3.02 TEMPORARY CONTROLS

A. Access Provisions

1. Provide ramps, stairs, ladders, and similar temporary access elements as reasonably required to perform the work and facilitate its inspection during installation. Comply with reasonable requests of governing authorities performing inspections.
- B. Environmental Control
1. Provide and maintain all fences, barricades, lights, shoring and other protective structures or devices necessary for the safety of workmen, equipment, the public and property as required by state or municipal laws and regulations, and local ordinances, laws and other requirements of the municipality, state, and other authorities having jurisdiction with regard to safety precautions, dust control, and fire hazards.
- C. Security and Protection Provisions.
1. The types of temporary security and protection provisions required include, but not by way of limitation, fire protection, personnel security program (theft prevention), and similar provisions intended to minimize property losses, personal injuries, and claims for damages at project site throughout construction period.
 2. Building Enclosure and Lock-up: At earliest possible date secure building against unauthorized entrance at times when personnel are not working. Provide secure temporary enclosures at ground floor and other locations of possible entry, with locked entrances.
 3. Fire Extinguishers: Provide types, sizes, numbers, and locations as would be reasonably effective in extinguishing fires during early stages by personnel at project site. Provide Type ABC dry chemical extinguishers; comply with recommendations of NFPA 10. Post warning and instructions at each extinguisher location, and instruct all personnel at project site, at time of their first arrival, on proper use of extinguishers and other available facilities at project site. Post local fire department call number on each telephone at project site.
 4. Before beginning any work that may result in a fire alarm transmission, the contractor shall call both the Anchorage Fire Department dispatcher at 907-522-1122 and the local fire station which would respond to an alarm and let them know you will be working on the system and for approximately how long. Second, the contractor shall call Guardian Security at 907-274-5275 and notify the dispatcher that you have called the Fire Department, what type of work you are planning to do, and approximately how long before you expect to be completed. After the contractor is completed with your work, you must reverse the process by notifying the Fire Department dispatcher and the ASD Dispatcher that you are finished.

3.03 REMOVAL

- A. Maintain all temporary facilities and controls as long as needed for safe and proper completion of Work. Remove all such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by Project Manager. Clean and repair damage caused by temporary installations or use of temporary facilities. Restore existing facilities used for temporary services to specified or original condition.

END OF SECTION

MAINTENANCE OF TRAFFIC

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. When working adjacent to school playgrounds, provide flagmen. Payment for such flagging and protective flagmen services shall be borne by Contractor.
- B. Contractor shall retain responsibility for traffic operations and protective measures to assure safe flow of traffic. Contractor shall cooperate with Owner so that traffic flow is minimally impeded by execution of work under this Contract.

1.02 SUBMITTALS

- A. Prior to starting any work, Contractor shall submit to the Project Manager, detailed plan of his proposed method for controlling traffic at each affected location. Proposed traffic control plan shall show and describe proposed locations and time durations covering the following:
 - 1. Vehicular traffic routing including School Buses.
 - 2. Traffic blockage anticipated to be caused by work under this contract.
 - 3. Address conflicts between Pedestrian and vehicular traffic.

1.03 TRAFFIC MAINTENANCE FACILITIES

- A. For duration of Contract, Contractor shall immediately repair or replace any and all appurtenances damaged or destroyed in performance of work included herein.
- B. Upon completion of work, temporary traffic maintenance items furnished by Contractor shall remain his property and shall be removed from site by Contractor.
- C. Contractor shall utilize dust control methods to control dust on access streets and project site to satisfaction of the Project Manager.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

PROJECT SIGN

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. Furnish, install, and maintain project identification sign.
- B. Project sign must be approved and permitted, prior to erections. Allow no other signs to be displayed.

1.02 PROJECT IDENTIFICATION

- A. Painted sign of 32 sf. area with painted graphic, or printed vinyl sign, content to include:
 - 1. Title of project.
 - 2. Name of Owner.
 - 3. Names of professional consultants.
 - 4. Prime contractor.
 - 5. Major subcontractors.
 - 6. An area 18" square for Owner logo.
- B. Graphic design, style of lettering, and colors: As shown in this section.
- C. Erect on the site at a lighted location of high public visibility as approved by Project Manager.

1.03 QUALITY ASSURANCE

- A. Sign Painter: Professional experience in type of work required.
- B. Finishes, Painting: Adequate to resist weathering and fading during scheduled construction period.

PART 2. PRODUCTS

2.01 SIGN MATERIALS

- A. Structure and Framing: may be new or used, wood or metal, in sound condition structurally adequate to work and suitable for specified finish.
- B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints. Thickness as required by standards to span framing members, to provide even, smooth surface without waves or buckles.
- C. Rough Hardware: Galvanized.
- D. Paint: Exterior quality semi-gloss Alkyd, as specified in painting specification.
- E. Vinyl Lettering and Graphics may be considered upon submittal to Project Manager.

PART 3. EXECUTION

3.01 PROJECT SIGN

- A. Paint exposed surfaces of supports, framing, and surface material; one coat of primer and one coat of exterior paint.
- B. Paint graphics in styles, sizes and colors selected.

3.02 MAINTENANCE

- A. Maintain sign and supports in a neat, clean condition; repair damages to structure, framing or sign.

3.03 REMOVAL

- A. Remove sign, framing, supports, and foundations at completion of the project.

Ursa Major ES Replacement ITB-1-Demolition
Project 386011

PROJECT CLOSE-OUT

PART 1. GENERAL

1.01 GENERAL CONDITIONS

- A. Definitions: Close-out is hereby defined to include general requirements near the end of contract time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by Owner and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Division 2 through 16. Time of Close-out is directly related to "Substantial Completion".

1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Sections 00700 and 00800 General and Supplementary General Conditions of the Contract for Construction
- B. Section 01750: Warranty of Work after Final Payment
- C. Section 01750: Certificate of Compliance

1.03 SUBSTANTIAL COMPLETION

- A. When Contractor considers work substantially complete as defined in contract conditions, he shall submit to the Project Manager:
 - 1. Written notice that work, or designated portion thereof, is substantially complete.
 - 2. List of items to be completed or corrected.
 - 3. Conditional Certificate of Occupancy from governing authorities.
 - 4. Project Records and Contract Record Drawings.
- B. Project Manager will at the mutually agreed time, make inspection to determine completion status.
 - 1. Should Project Manager determine that work is not substantially complete:
 - a. Project Manager will promptly notify Contractor, in writing, giving reasons therefore.
 - b. Contractor will remedy work deficiencies, and send second notice of substantial completion to Project Manager.
 - c. Project Manager will re-inspect work, with his cost and/or expense for such to be the Contractor's responsibility.
 - 2. When Project Manager concurs that work is substantially complete, the Architect will:
 - a. Prepare Certificate of Substantial Completion accompanied with Contractor's list of items to be completed or corrected, as verified and amended by the Project Manager and Architect.
 - b. Submit certificate to Owner and Contractor for their written acceptance of the responsibilities assigned to them in the certificate.

1.04 FINAL INSPECTION

- A. When Contractor considers work complete, he shall submit written certification that:
 - 1. Contract documents have been reviewed.

2. Contractor has inspected work for compliance with contract documents.
 3. Work has been completed in accordance with contract documents.
 4. Equipment and systems have been tested and operated in presence of Owner's representative and are operational.
 5. Copy of substantial completion punch lists stating that each item has been completed or otherwise resolved for acceptance.
- B. Project Manager will, at the mutually agreed time, inspect the work to verify completion status.
1. Should the Project Manager consider work incomplete or defective:
 - a. Project Manager will promptly notify Contractor in writing of any incomplete or defective work.
 - b. Contractor shall immediately remedy deficiencies, and send written certification to Project Manager that work is complete.
 - c. Project Manager will re-inspect work.
 2. When Project Manager finds the work acceptable under contract documents, he will request Contractor to make closeout submittals.

1.05 RE-INSPECTION FEES

- A. Should Project Manager and or Engineer be required to make more than one substantial and/or final inspection due to Contractor's failure to correct specified deficiencies, the Contractor shall bear all costs made necessary by such additional inspections.

1.06 SUBMITTALS

- A. Record Drawings
1. Prior to Final Completion of the Project, the Contractor and/or Subcontractors under his direction, shall submit records of changes on prints to Project Manager.
 2. Accompany submittal with transmittal letter, to Project Manager, containing:
 - a. Date
 - b. Project title and number
 - c. Contractor's name and address
 - d. Title and number of each record document
 - e. Certification that each document as submitted is complete and accurate.
 - f. Signature of Contractor, or his authorized representative.
 3. Provide drawings and special system drawings on CD in AutoCad format.
- B. Project Record Documents
- C. Operating and Maintenance Data
- D. Building Official's Certificate of Occupancy (MUST BE RECEIVED IN TIME TO ALLOW OCCUPANCY ON DATE REQUIRED IN CONTRACT DOCUMENTS).
- E. Warranty of Work after Final Payment Section 01750
- F. Certificate of Compliance Section 01750
- G. AHERA Exclusion document Section 01750

- H. Department of Revenue Tax Clearance Section 01750
- I. Department of Labor Tax Clearance Section 01750
- J. Department of Labor Notice of Completion of Public Works Section 01750
- K. Certificate of Domestic water disinfection.
- L. Evidence of Payments and Release of Liens
 - 1. Contractor's Affidavit of Payment of Debt and Claims.
 - 2. Contractor's Affidavit of Release of Liens including the following:
 - a. Consent of Contractor's Surety to Final Payment.
 - b. Contractor's Release of Waiver of Liens.
 - c. Separate releases of Waivers of Lien for each subcontractor, supplier, and others with lien rights against Owner's property.
- M. Storm Water Pollution Prevention Plan (SWPPP) and associated documents.
 - 1. A copy of the Notice of Intent (NOI) and the plan review location notice shall be posted in the project office on site.
 - 2. A copy of the SWPPP shall be retained in the project office during construction.
 - 3. All records relating to the SWPPP, as well as the Plan, the NOI, and NOT shall be retained by the Contractor and the Municipality of Anchorage for three years after the NOT is issued.
 - 4. Copies of all SWPPP documents are to be delivered to the Municipality of Anchorage and the Anchorage School District upon completion of the project and before final closeout.
- N. Closeout Checklist Section 01750
 - 1. A closeout checklist is provided for convenience in tracking the necessary documentation and deliverables for project closure. This checklist should be updated and submitted with each closeout deliverable.

1.07 FINAL APPLICATION FOR PAYMENT

- A. Follow procedures specified in General and Special Conditions, and also note miscellaneous prerequisites for final payment noted in this section.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

CLEANING

PART 1. GENERAL

1.01 DESCRIPTION

- A. Execute cleaning, during progress of the work, and at completion of the work.

1.02 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2. PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.

PART 3. EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute periodic cleaning to keep the work, the site, and adjacent areas free from accumulations of waste materials, rubbish, and debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris, and rubbish.
- C. Remove waste materials, debris, and rubbish from the site periodically and dispose of.

3.02 DUST CONTROL

- A. Clean interior spaces prior to the start of finishing painting and continue cleaning on an as-needed basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.

3.03 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.
- C. Prior to final completion, or Owner occupancy, the Contractor shall conduct an inspection of sight-exposed interior surfaces and all work areas to verify that the entire work is clean.

END OF SECTION

PROJECT RECORD DOCUMENTS

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Maintenance of record documents and samples.
- B. Submittal of record documents and samples.

1.02 RELATED REQUIREMENTS

- A. Document 00700 - General Conditions of the Contract for Construction.
- B. Section 01300 - Submittals.
- C. Section 01340 - Shop drawings, Product data and Samples.
- D. Section 01700 - Project Close-Out.
- E. Individual Specifications Sections: Manufacturer's certificates and certificates of inspection.

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. In addition to requirements in General Conditions, maintain at the job site for Owner's use one record copy of:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data and samples.
 - 6. Field test records.
 - 7. Inspection certificates.
 - 8. Manufacturer's certificates.
 - 9. Request for Information (RFI)
 - 10. Request for Proposal (RFP)
 - 11. Current Construction Network.
- B. Store record documents and samples in the field office apart from the documents used for construction.
- C. Label and file record documents and samples in accordance with Section number listings in Table of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- D. Maintain record documents in a clean, dry and legible condition. Do not use record documents for construction purposes.

Keep record documents and samples available for inspection by the Project Manager.

1.04 RECORDING

- A. From the copies of Contract Documents to be furnished by Project Manager, the Contractor and/or Subcontractors shall record on a set of clean, new prints each and every change that is made, at time it is made, in red. This includes any changes that are made in partitions, doors, or otherwise in arrangement of construction of buildings as well as a complete record of exact manner in which electrical and mechanical work, piping, etc., are installed. All Change Orders, RFI's, and Information Bulletins shall be incorporated. Dimensions shall be included where necessary to accurately locate piping and other items that will be concealed underground or in finished building that may later be necessary to service.
- B. Contract Drawings: Legibly mark to record actual construction.
 - 1. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 - 2. Field changes of dimensions and detail.
 - 3. Changes made by Change Order and other modifications.
 - 4. Details not on original contract drawings.
 - 5. References to related shop drawings and modifications.
- C. Shop Drawings: Maintain as record documents, legibly annotate appropriate drawings to record changes made after review.
- D. Specifications and Addenda: Legibly mark up each section to record:
 - 1. Changes made by Change Order.
 - 2. Manufacturer, trade name and catalog number of each product actually installed, particularly optional items and substitute items.
 - 3. Changes made by addenda and modifications.
 - 4. Other matters not originally specified.
- E. Label each document "PROJECT RECORD" in printed letters.
- F. Keep record documents current. No progress payments will be made until record documents are verified by the Project Manager as being current.
- G. Do not permanently conceal any work until required information has been recorded.
- H. Methodology:
 - 1. Changes to Work are described by source documents, including, but not limited to, Field Directives (FD), Information Bulletins (IB), Requests for Information (RFI), and Requests for Proposals (RFP), and their attachments. (Reference Section 00700, Article 12.)
 - 2. Project Record drawings are to completely and clearly reflect all Changes to Work by graphically showing actual changes to dimensions, locations, materials, assemblies, and other conditions; by graphically deleting conditions replaced by such changes; and by indicating applicable source document's reference number. Such reference number shall not be the sole representation of Changes to Work shown on Project Record drawings.
 - 3. Where A/E furnishes supplemental drawings, Project Record drawings are to show both the A/E's supplemental drawing reference number and the source document's reference number at the affected location.

1.05 SUBMITTAL

- A. Prior to Final Completion of the Project, the Contractor and/or Subcontractors under his direction, shall submit records of changes on prints to Project Manager.
- B. Accompany submittal with transmittal letter, to Project Manager, containing:
 - 1. Date
 - 2. Project title and number
 - 3. Contractor's name and address
 - 4. Title and number of each record document
 - 5. Certification that each document as submitted is complete and accurate.
 - 6. Signature of Contractor, or his authorized representative.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1. GENERAL

1.01 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Recycling nonhazardous demolition and construction waste.
2. Disposing of nonhazardous demolition and construction waste.

1.02 RELATED REQUIREMENTS:

A. 02 41 00 - Demolition

1.03 DEFINITIONS

- A. Construction Waste: Building, structure, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.
- C. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

1.04 ACTION SUBMITTALS

A. Waste Management Plan: Submit plan within 7 days of date established for the Notice to Proceed.

1.05 INFORMATIONAL SUBMITTALS

- A. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. Include the following information:
 1. Material category.
 2. Generation point of waste.
 3. Total quantity of waste in tons.
 4. Quantity of waste recycled, both estimated and actual in tons.
 5. Total quantity of waste recovered (salvaged plus recycled) in tons.
 6. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- B. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.

- C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- G. LEED Submittal: Submit documentation to USGBC, signed by Contractor, tabulating total waste material, quantities diverted and means by which it is diverted. Respond to questions and requests from USGBC regarding construction waste management and disposal until the USGBC has made its determination on the Project's LEED certification application. Document correspondence with USGBC as informational submittals.

1.06 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, or individual employed and assigned by General Contractor, with a record of successful waste management coordination of projects with similar requirements.
- B. Firm employs a LEED-Accredited Professional, certified by the USGBC, as waste management coordinator.
- C. Waste management coordinator may also serve as LEED coordinator.
- D. Waste Management Conference(s): Conduct conference(s) at Project site to comply with requirements in Section 01200 "Project Meetings."

1.07 WASTE MANAGEMENT PLAN

- A. General: Develop a waste management plan according to requirements in this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis. Distinguish between demolition and construction waste. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
- D. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.

- E. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
- F. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.

PART 2. PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. General: Track salvage/recycling by weight of all total nonhazardous solid waste generated by the Work for at least five distinct material streams. Facilitate recycling and salvage of materials.
- B. Calculations must exclude excavated soil and land-clearing debris.
- C. Calculations must include materials destined for alternative daily cover (ADC) in the calculations as waste (not Recycled Materials).

PART 3. EXECUTION

3.01 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
- D. Distribute waste management plan to everyone concerned within three days of submittal return.
- E. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- F. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- G. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged and recycled.
- H. Comply with Section 01500 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.02 RECYCLING DEMOLITION AND CONSTRUCTIONWASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.

- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall be shared equally by Owner and Contractor.
- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
- E. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
- F. Inspect containers and bins for contamination and remove contaminated materials if found.
- G. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
- H. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
- I. Store components off the ground and protect from the weather.
- J. Remove recyclable waste from Owner's property and transport to recycling receiver or processor as often as required to prevent overfilling bins.

3.03 RECYCLING DEMOLITION WASTE

- A. Asphalt Paving: Break up and transport paving to asphalt-recycling facility.
- B. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
- C. Pulverize concrete to maximum 4-inch size.
- D. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.
- E. Pulverize masonry to maximum 1-1/2-inch size.
- F. Clean and stack undamaged, whole masonry units on wood pallets.
- G. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- H. Metals: Separate metals by type.
- I. Structural Steel: Stack members according to size, type of member, and length.
- J. Remove and dispose of bolts, nuts, washers, and other rough hardware.

- K. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- L. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
- M. Metal Suspension System: Separate metal members, including trim and other metals from acoustical panels and tile, and sort with other metals.
- N. Carpet and Pad: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
- O. Store clean, dry carpet and pad in a closed container or trailer provided by carpet reclamation agency or carpet recycler.
- P. Carpet Tile: Remove debris, trash, and adhesive.
- Q. Stack tile on pallet and store clean, dry carpet in a closed container or trailer provided by carpet reclamation agency or carpet recycler.
- R. Piping: Reduce piping to straight lengths and store by material and size. Separate supports, hangers, valves, sprinklers, and other components by material and size.
- S. Conduit: Reduce conduit to straight lengths and store by material and size.
- T. Lamps: Separate lamps by type and store according to requirements in 40 CFR 273.

3.04 RECYCLING CONSTRUCTION WASTE

- A. Packaging:
 - B. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
 - C. Polystyrene Packaging: Separate and bag materials.
 - D. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
 - E. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.
- F. Wood Materials:
 - G. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
 - H. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
 - I. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location.
 - J. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

- K. Paint: Seal containers and store by type.

3.05 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged or recycled, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
- B. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
- C. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- D. General: Except for items or materials to be salvaged or recycled, remove waste materials, and legally dispose of at designated spoil areas on Owner's property.
- E. Burning: Do not burn waste materials.

END OF SECTION

CLOSEOUT FORMS

PART 1. GENERAL

- 1.01 The following forms are to be submitted by the Contractor prior to final project closeout.
- 1.02 CERTIFICATION OF SUBSTANTIAL COMPLETION
- A. Use Anchorage School District Form 101 attached herein.
- 1.03 CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS
- A. Use Anchorage School District Form 102 attached herein.
- 1.04 RELEASE ON CONTRACTS
- A. Use Anchorage School District Form 103 attached herein.
- 1.05 CONSENT OF SURETY COMPANY TO FINAL PAYMENT
- A. Use Anchorage School District Form 104 attached herein.
- 1.06 CONSENT OF SURETY TO REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE
- A. Use Anchorage School District Form 105 attached herein.
- 1.07 CERTIFICATE OF COMPLIANCE
- A. The Contractor shall submit a notarized Certificate of Compliance, contained in this section, with his application for Final Payment.
- 1.08 WARRANTY OF WORK AFTER FINAL PAYMENT
- A. The Contractor shall furnish to the Owner a notarized Warranty of Work after Final Payment, contained in this section, with his application for Final Payment.
- 1.09 AHERA EXCLUSION DOCUMENT
- A. The Contractor shall furnish to the Owner a signed AHERA Exclusion Document, contained in this section, with his application for Final Payment.
- 1.10 DEPARTMENT OF LABOR NOTICE OF COMPLETION OF PUBLIC WORKS
- A. The Contractor shall furnish to the Owner a Notice of Completion of Public Works form approved by the Department of Labor with his application for Final Payment.
- 1.11 DEPARTMENT OF REVENUE TAX CLEARANCE REQUEST FORM
- A. For projects funded through the Department of Education (debt reimbursement or DEED grants), the Contractor shall furnish to the Owner a Tax Clearance Request Form approved by the Department of Revenue with his application for Final Payment.
- 1.12 DEPARTMENT OF LABOR TAX CLEARANCE REQUEST FORM
- A. For projects funded through the Department of Education (debt reimbursement or DEED

grants), the Contractor shall furnish to the Owner a Tax Clearance Request Form approved by the Department of Labor, with his application for Final Payment.

1.13 CLOSEOUT CHECKLIST

- A. The closeout checklist is designed to assist the contractor and project manager in the process of completing the project.

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: _____ Contract Number: _____

Contractor: _____ Contract Date: _____

Architect: _____ Date of Issuance: _____

Owner: ANCHORAGE SCHOOL DISTRICT
1301 Labar Street
Anchorage, Alaska 99515

Project Description:

The work performed under this contract has been reviewed and found to be substantially complete. The date of Substantial Completion is hereby established as: _____

Definition of Date of Substantial Completion:

The date of substantial completion of the project is the date certified by the Owner when the work is substantially complete in accordance with, and defined in the Contract Documents.

A list of items to be completed or corrected, prepared by the Owner and verified and amended by the Architect is appended hereto. The failure to include any items or such list does not alter the responsibility of the Contractor to complete the project in accordance with the Contract Documents.

The Contractor will complete or correct the work on the list of items appended hereto within 30 days from the date of substantial completion.

The responsibilities of the Owner and the Contractor for maintenance, heat, utilities, and insurance shall be as follows: _____

In reliance upon the certification of the Contractor and the Architect, the Owner hereby accepts the project as substantially complete. In accordance with the Contract Documents, the Owner hereby elects to assume occupancy of _____

_____ at _____ a.m./p.m. on
_____ .

Owner: **ANCHORAGE SCHOOL DISTRICT**

By: _____ Title: _____ Date: _____

Architect:

By: _____ Title: _____ Date: _____

Contractor:

By: _____ Title: _____ Date: _____

ASD 101 (01/03)

**CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS
ANCHORAGE SCHOOL DISTRICT**

WHEREAS, by the terms of a contract dated _____
Anchorage School District, and

entered into by the _____
for the construction of _____

The undersigned, pursuant to the General Conditions of the Contract for the construction, _____, hereby certifies that, except as listed below, he has paid in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the District or his property might in any way be held responsible.

EXCEPTIONS:

IN WITNESS WHEREOF, the seal of the undersigned Contractor have been hereunto set this

day of _____

, at _____

By _____

being first duly sworn, say that I am the agent for and executed the foregoing under authority of said company to do so; that I have read the same, know the contents thereof, and the matters set forth therein are as I truly believe.

By _____

Subscribed and sworn to before me this _____ day of _____

, at _____

Notary Public in and for _____

My Commission Expires _____

ASDF Form 102

**RELEASE ON CONTRACT
ANCHORAGE SCHOOL DISTRICT**

WHEREAS, by the terms of a contract dated _____ entered into by the Anchorage School District,

and _____ for the construction of _____

_____, it is provided that:

"Neither the final payment nor the remaining retained percentage shall become due until the Contractor shall provide the Owner (1) with a waiver and release of liens, on the forms provided by the Owner, executed by the Contractor..."

NOW THEREFORE, in consideration of the premises and the payment by the Anchorage School District to the undersigned Contractor of the amounts due under the contract and any changes or modifications thereto, to wit, the sum

of \$ _____ Dollars,

(Numbers)

(In Words)

the undersigned Contractor hereby releases and forever discharges the Anchorage School District including its property, particularly that real property known as:

_____ of the Anchorage School District, of and from all manner of debts, dues and sum or sums of money, accounts, claims, and demands whatsoever, in Law and in equity, under or by virtue of said contract, and warrants good title to all material, supplies and equipment installed or incorporated in the project and all work delivered to the premises, together with all improvements and appurtenances constructed thereon by:

_____ to the Anchorage School District free of any claims, liens or encumbrances. Neither the undersigned nor any person, firm or corporation furnishing material or labor for any work covered by this Contract has any right to a lien upon the premises nor improvement thereon, except:

IN WITNESS WHEREOF, the signature of the undersigned Contractor has been hereunto set this

_____ day of _____, 20__, at _____, Alaska.

Signature: _____

Printed Name: _____

I, _____, being first duly sworn, say that I am the agent for and executed the foregoing under authority of said company to do so; that I have read the same, know the contents thereof, and the matters set forth therein are as I truly believe.

Signature: _____

Subscribed and sworn to before me this _____ day of _____, 20__, at _____, Alaska.

Notary Public in and for _____

My Commission Expires: _____.

ASD Form 103

**CONSENT OF SURETY COMPANY
TO FINAL PAYMENT**

PROJECT: _____ **PROJECT NUMBER:** _____

TO: Anchorage School District **CONTRACT DATE:** _____

CONTRACTOR: _____

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above:

(Surety Company)

on bond of

(Contractor)

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to **Anchorage School District, Owner** as set forth in said Surety Company's bond. Surety expressly agrees that any and all valid claims of sub-Contractors and all persons supplying labor or materials to the project will be satisfied by Contractor or Surety in a timely manner

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this

day of _____, 20__.

Name of Surety Company

Attest

Signature of Authorized Representative

Title

ASD 104

**CONSENT OF SURETY TO REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE
ANCHORAGE SCHOOL DISTRICT**

PROJECT:

PROJECT NUMBER:

TO: Anchorage School District

CONTRACT DATE:

CONTRACTOR:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above,
the:

_____ (Surety Company)

on bond of

_____ (Contractor)

HEREBY APPROVES OF THE REDUCTION IN OR PARTIAL RELEASE OF RETAINAGE to the Contractor
as follows:

The surety agrees that such reduction in or partial release of retainage to the Contractor shall not relieve the
Surety of any of its obligations to **ANCHORAGE SCHOOL DISTRICT, OWNER**

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this
day of .

Name of Surety Company

Attest

Signature of Authorized Representative

Title

ASDF Form 105

CERTIFICATE OF COMPLIANCE

No final payment shall be made until the Contractor shall file with the Owner, prior to acceptance of the work, a notarized Certification of Compliance in the following form:

The Contractor does hereby certify that all work has been performed and materials supplied in accordance with the Drawings, Specifications and Contract Documents for the above work, and that:

No less than the prevailing rates of wages as ascertained by the governing body of the Contracting Agency has been paid to laborers, workmen and mechanics employed on this work;

There have been no unauthorized substitutions of Subcontractors; nor have any subcontracts been entered into without prior notice having been submitted to the Owner prior to the start of such subcontracted work;

No subcontract was assigned or transferred or performed by any Subcontractor other than the original Subcontractor, without prior notice having been submitted to the Owner together with the names of all Subcontractors;

All claims for material and labor and other paid service performed in connection with these specifications have been paid;

All monies due the State Industrial Accident Fund, the State Unemployment Compensation Trust Fund, the State Tax Commission, Hospital Associations and/or others have been paid.

In WITNESS WHEREOF, the undersigned has signed and sealed this instrument this

_____ day of _____, 20__.

(Firm Name)

(Signature)

(Title)

(Attest)

(SEAL IF BIDDER IS A CORPORATION)

As determined necessary, evidence of compliance may be required to be submitted with and made a part of this Certificate of Compliance.

WARRANTY OF WORK

Prior to Final Payment, the Contractor shall furnish to the Owner a Warranty of Work in the following form:

The Contractor does hereby warrant all work and materials to be in full and complete accordance with the Contract Documents and Agreement between Owner and Contractor, and requirements appertaining thereto; that all work and materials are free from any and all defects and imperfections, and fully suitable for the use and purposes for which each and every part is intended. The Contractor also agrees that, should any defect develop or appear which the Project Manager or Owner's Representative finds was Not caused by improper use, the Contractor shall promptly, upon demand, fully correct, substitute and make good any such defective material without any cost to the Owner and will save the Owner harmless against any claim, demand, loss or damage by reason of any breach of this warranty.

The period of this warranty shall commence on the date of Substantial Completion.

The warranty shall continue to be in full force and effect for the period of one (1) year, except for those items for which a longer period of warranty is specifically stated in the Warranties for work in Technical Sections of the Specifications.

Warranties for work stated in Technical Section shall continue in full force and effect for the respective periods expressly stated.

In WITNESS WHERE, the undersigned has signed and sealed this instrument this

_____ day of _____, 20____.

(Firm Name) _____

(Signature) _____

(Title) _____

(Attest) _____

(SEAL IF BIDDER IS A CORPORATION)

AHERA Exclusion Document

Contractor's Verification of Asbestos-Free Construction

Project: _____ **Project Number:** _____

Contractor: _____ **Date:** _____

To: Anchorage School District
Facilities Coordinator,
AHERA LEA Designated Person

To the best of our knowledge, no asbestos-containing building materials were installed in this project.

Attest: _____
Signature of Authorized Representative

Title

Department of Labor and Workforce Development
Labor Standards and Safety Division
Wage and Hour Administration
www.labor.state.ak.us/lss/lss.htm



- This form must be typed or printed in ink.
- Fill in all blanks or form will be returned for correction (see back).
- Please allow a minimum of 30 working days for processing.

ENTER YOUR FAX # _____
AND LIST YOUR MAILING ADDRESS BELOW

Contractor, company or agency name, address, city, state & ZIP + 4

NOTICE OF COMPLETION OF PUBLIC WORKS

Additional Filing Fee May Be Required

Project Name	Contract #	
Contract awarding agency		
Address		
City	State	ZIP + 4
Contract awarding agency contact person		Phone #
Location and city where work was performed		
DOLWD Project #		
Project Completion Date / /		

Primary contractor (has contract with the public agency)

IF YOU HAVE ALREADY PAID \$5,000 IN FEES FOR THIS PROJECT, OR IF YOU PREVIOUSLY PAID ALL FEES DUE AND DID NOT HAVE ANY INCREASES IN CONTRACT AMOUNTS ENTER "NONE" AND, SKIP TO CERTIFICATION. OTHERWISE, DESCRIBE ADDITIONAL WORK.

Description of additional contract/subcontract work performed	Name of contractor who performed this work	Amount of subcontract
CERTIFICATION: I hereby certify that the above information is correct. Enclosed is the additional filing fee computed at 1% of the total amount of all new contracts on this project, including the contract price of new work performed by the primary contractor not previously reported on the Notice of Work, up to a maximum of \$5,000. I also certify that all contractors who worked on this project complied with prevailing wage requirements as described in AS 36.05.010- .110 and AS 36.10.007- .990.	Total value of additional subcontracts	\$
	Additional value of work performed by primary contractor +	\$
	Amount subject to fee	\$
	Multiply by .01	
	Supplemental fee enclosed = ROUND FEES TO NEAREST DOLLAR	\$
For Dept. Use Only Amount: _____ Check Number: _____ Cash _____ Received By: _____ Date: _____ Credit Card Confirmation _____ Visa _____ MC _____ Project Name _____ DOLWD Project # _____ Wage & Hour date-stamped copy of this form will serve as temporary receipt.		
For Dept. Use Only T-36 Clearance Approved By _____ Department of Labor and Workforce Development		

D:\temp\Temporary Internet Files\OLKF4\noticecompletionpublicworks.doc

(6/27/03)

How to expedite the processing of your form:

ERRORS THAT CAUSE REJECTION

No fee included or incorrect amount. If total contract amount is less than \$25,000 no filing fee is required. Contract amounts paid to owner/operators with no employees are exempt from the fee. **The maximum total filing fee for any one project is \$5,000.00.**

Missing - Value of work performed by primary contractor.

Missing – The name of each **NEW** subcontractor and the amount of the contract OR the name of existing subcontractors and the amount of any **NEW** work not previously reported on the Notice of Work.

Missing – Notice of Completion of Public Works must be signed by an authorized representative.

FILING INSTRUCTIONS

Additional fees are required for any increase in contract value, unless the maximum fee (\$5,000) has been paid.

If there is not enough space to list all required information on one form, use additional sheets. Please indicate at the top of each sheet "Page 1 of 2", "Page 2 of 2", etc. No other attachments will be accepted.

A Wage and Hour Administration (WH) date-stamped copy of this form will serve as a temporary receipt, while the acceptance of fees is processed. WH will mail or fax the approved copy of this form to the organization provided on the front of this form. Make a copy for your records. This will serve as your notice that the fees paid have been accepted by WH.

For questions call the nearest WH office:

Juneau: (907) 465-4842 Anchorage: (907) 269-4900 Fairbanks: (907) 451-2886

For more forms, see www.labor.state.ak.us/lss/lssforms.htm

Submit the notice and the appropriate filing fee to:

Alaska Department of Labor and Workforce Development
Wage and Hour Administration
3301 Eagle Street, Ste. 301
Anchorage, AK 99503-4149

If no fee is required, you may fax the notice to (907) 269-4915

**Alaska Department of Revenue
TAX CLEARANCE REQUEST FORM**

Applicant's Name: _____

EIN/SSN: _____

Mailing Address: _____

City/State/Zip Code: _____

I hereby authorize the Alaska Department of Revenue to release to

(Name of Department or Agency)

Department's Statute on tax clearance: _____

whose facsimile number or email address is _____.

confirmation that all taxes, penalties and interest due the Department of Revenue have been
paid and that there are no outstanding amounts due.

Signed: _____

Printed Name: _____

Title*: _____

*If tax clearance is being requested on behalf of a corporation/LLC/partnership, must be signed by an
officer/member/partner.

Send completed form by email to the Department of Revenue at DOR.tax.accounting@alaska.gov

DEPARTMENT USE ONLY

- ☐ *The above applicant is current on all taxes, penalties and interest due and
is in good standing with the Alaska Department of Revenue.*
- ☐ *The above applicant is not current on all taxes, penalties and interest due
and is not in good standing with the Alaska Department of Revenue.*

Department of Revenue Representative

Date

*TaxClearanceRequestForm (Rev 2/21)



THE STATE
of **ALASKA**
GOVERNOR MICHAEL J. DUNLEAVY

**Department of Labor and Workforce
Development**

Division of Employment and Training Services
Employment Security Tax

P.O. Box 115509
Juneau, AK 99811-5509
Relay Alaska (in state): (800) 770-8973 or 7.1.1
Relay Alaska (out of state): (800) 770-8255
Toll free: (888) 448-2937
Phone: (907) 465-2787
Fax: (907) 465-2374

Tax Clearance Request Form for Contractors

Date of request: _____

Business name of the contractor a Tax Clearance is being requested for: _____

Business address: _____

Business contact phone number: _____

Federal Identification Number: _____

Alaska Employer Account Number: _____

Specific time period a tax clearance is being requested for (i.e. beginning and ending date of a subcontract agreement):

Subcontract project name: _____

Name and address of the person this Tax Clearance is to be returned to: _____

Comments or additional information: _____

For agency use only:

- ☐ Tax Clearance is granted
- ☐ Tax Clearance is not granted (please have employer contact the department)
- ☐ No account on file, liability unknown (please have employer contact the department)
- ☐ Employer has stated no employees, Tax Clearance not required.

Agency representative signature: _____ Date: _____

Agency representative title: _____

We are an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. labor.alaska.gov/estax

Rev. 8/2018

Project Title:_____ **Project Number:**_____

PROJECT CLOSEOUT CHECKLIST	Number Required	Number & Date Delivered
Inspection Documents		
Substantial Completion Inspection Documents	1	
Substantial Completion Punch List	1	
Final Inspection Documents	1	
Final Inspection Punch List	1	
Certificate of Substantial Completion (ASD Form 101)	1	
Contractor Submittals		
As-built drawings to Engineer of Record (Section 01700)	1	
All project record documents (Section 01720)	1	
Maintenance and Operations Manuals – Electronic version – OCR pdf (Section 01730)	1	
Warranty and Special Warranty Manuals (Section 01730)	4	
Certificate of Domestic Water Disinfection (Section 01700)	2	
Warranty of Work (Section 01750)	1	
Certificate of Compliance (Section 01750)	1	
Building Officials Certificate of Mechanical and Electrical Inspection	3	
Building Official's Certificate of Occupancy	3	
Building Official's Certificate of Completion	3	
AHERA Response Action Report (RAR)	1	
AHERA Exclusion Document (Section 00630)	1	
Return school keys to lock shop	1	
Lock Shop Release Form (signed)	1	

Project Title: _____

Project Number: _____

PROJECT CLOSEOUT CHECKLIST	Number Required	Number & Date Delivered
Contractor's Affidavit of Payment of Debts and Claims (ASD Form 102)	1	
Consent of Surety Company to Final Payment (ASD Form 104)	1	
Release on Contract (ASD Form 103)	1	
Consent of Surety to Reduction in/or Partial Release of Retainage (ASD Form 105)	1	
Engineered As-built drawings and special system drawings on reproducible CD's (not zipped)	1	
Engineered As-built drawings and special system drawings on bond/blacklines	2	
Spare Parts deliverables	1	
Copy of Warranty for all items with Extended Warranty	1	
Notice of Completion of Public Works (Section 00630) (Approved DOL Clearance Form)	1	
Dept. of Revenue Tax Clearance Form (Section 00630) (Approved DOR Tax Clearance Form)	1	
Dept. of Labor Tax Clearance Form (Section 00630) (Approved DOL Tax Clearance Form)	1	
Apprenticeship Program - Purchasing release for final payment (projects over \$100,000)		
Final Application and Certificate for Payment (ASD Form 100A-C)	1	
Base Access Pass(s) returned to Visitor Control Center		

Project Manager Signature

Date

END OF SECTION

UTILITY LOCATION REQUIREMENTS

PART 1. GENERAL

1.01 DESCRIPTION

- A. Upon receipt of written notification from any of public agencies or utilities that Contractor has caused damage to any facility, equipment or installation of agency, and Contractor failed to request a utility locate service from said utility at least two (2) normal business days prior to damage, or if locate services was properly requested, that damage was not approximately caused by error in locate service, Owner will withhold from forthcoming or accrued Contract payment, including advances, a sum sufficient to protect agency or utility from loss. Public agencies or utilities that provide notice of facility damage under this paragraph are:

Anchorage Water and Wastewater Utility
Alaska Communications Systems
Alaska Fiber Star
Alaska Native Medical Center
Alaska Railroad Corporation
Alyeska Cable / TelAlaska
Anchorage School District
Aircraft Service International Group
AT&T Alascom
Chugach Electric Association, Inc.
Department of Transportation Street Lights, State of Alaska
Doyon Utilities, LLC
Enstar Natural Gas Company
Flint Hills Resources/Williams Alaska Pipeline
GCI Cable
Matanuska Electric Association
Matanuska Telephone Association
Municipality of Anchorage/Department of Public Works
Municipal Light & Power Utility
Tesoro Alaska Inc.

- B. Upon receipt of release of claim by notifying utility or upon judgment of a court having jurisdiction in matter and having established that Contractor is liable for a lesser amount or is not liable for damage, Owner will release excess funds to Contractor. Funds withheld pursuant to this provision shall not bear interest. Upon receipt of satisfactory evidence against Contractor in court of competent jurisdiction within sixty (60) days after discovery of damage, Owner shall release funds withheld pursuant to this provision.

1.02 PROTECTION OF UTILITIES

- A. Any pipes or other utilities encountered in excavation shall be shored up and cared for by Contractor as to leave them in a proper working condition until such times as Owner determines what shall be done with them.
- B. Any utilities mislocated or inadequately located by appropriate utility company which are damaged by Contractor shall not constitute reimbursement or time extensions to Contractor from Owner for repair(s) of work that Contractor performs.
- C. Contractor shall coordinate his work to cooperate with original utility service installed.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION (NOT USED)

END OF SECTION

HAZARDOUS MATERIALS ASSESSMENT

PART 1. GENERAL

1.01 SECTION INCLUDES

- A. The Hazardous Materials Assessment for the proposed construction is included with these Contract Documents.

1.02 USE OF INFORMATION

- A. The Hazardous Materials Assessment is provided for the Contractor's information and use in the planning and performance of work in areas containing hazardous or potentially hazardous materials as outlined in Paragraph 1.03.
 - 1. The information provided in the Hazardous Materials Assessment is based on samples collected in various locations of the building. Thus, the Owner and/or its Representative cannot guarantee or warrant that actual conditions encountered might not vary from the information presented in these reports.
 - 2. The data reported in the Hazardous Materials Assessment is accurate to the best of the Owner's and its Representative's knowledge. The requirements contained in these specifications and in the relevant state and federal regulations pertaining to the performance of work in areas containing hazardous or potentially hazardous materials provide guidance for the contractor for performance of work in these areas. The Owner and its Representative disclaim all responsibility for the Contractor's erroneous conclusions regarding the information presented in these reports; the requirements contained in these specifications; and the requirements of applicable state and federal regulations pertaining to performance of work in these areas.
 - 3. The Contractor shall be responsible for obtaining additional information if Contractor deems it necessary to carry out the work.
- B. It is highly recommended that the contractor visit the site to acquaint themselves with existing conditions.
- C. Attached Hazardous Materials Assessment

1.03 HAZARDOUS MATERIALS NOTIFICATION:

- A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

PART 2. PRODUCTS (Not Used)

PART 3. EXECUTION (Not Used)

HAZARDOUS MATERIALS ASSESSMENT

URSA MAJOR ELEMENTARY SCHOOL REPLACEMENT

ANCHORAGE, ALASKA

Surveyed
February 13 – 19, 2025
June 6, 2025

Report Date
April 17, 2025

Revised Date
July 18, 2025

EHS-ALASKA, INC.
ENGINEERING, HEALTH & SAFETY CONSULTANTS
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EAGLE RIVER, ALASKA 99577-7701

**HAZARDOUS MATERIALS ASSESSMENT
URSA MAJOR ELEMENTARY SCHOOL REPLACEMENT**

ANCHORAGE, ALASKA

TABLE OF CONTENTS

	PAGE NO.
OVERVIEW	5
A. GENERALIZED REQUIREMENTS FOR HAZARDOUS MATERIALS	5
B. BUILDING DESCRIPTION	6
C. SAMPLING AND ANALYSIS	7
1. Asbestos-Containing Materials	7
2. Lead-Containing Materials	8
3. Testing of Paints and Sealants for PCB's	8
4. Screening of Soils for PCB's	9
D. SURVEY RESULTS	9
1. Asbestos-Containing Materials	9
2. Asbestos in Dusts	28
Dust Sampling for Asbestos	28
3. Lead-Containing Materials	29
4. PCB-Containing Materials	31
5. Mercury-Containing Materials	33
6. Other Hazardous Materials	34
E. REGULATORY CONSTRAINTS	34
1. Asbestos-Containing Materials	34
2. Dusts with Asbestos	35
3. Lead-Containing Materials	36
4. PCB-Containing Materials	37
5. Mercury-Containing Materials	38
6. Other Hazardous Materials	39
F. RECOMMENDATIONS	40
1. Asbestos-Containing Materials	40
2. Dusts with Asbestos	40
3. Lead-Containing Materials	40
4. PCB-Containing Materials	40
5. Mercury-Containing Materials	40
6. Other Hazardous Materials	41
G. LIMITATIONS	41
1. Accuracy of Information	41
2. Site Conditions	41
3. Changing Regulatory Constraints	41

APPENDICES

Appendix A	Asbestos Bulk Field Survey Data Sheets and Lab Reports
Appendix B	Dust Sampling for Asbestos, Field Survey Data Sheets and Lab Reports
Appendix C	Lead Dust Field Survey Data Sheets and Lab Reports
Appendix D	Bulk Product PCB Field Survey Data Sheets and Lab Reports
Appendix E	Mercury TCLP Field Survey Data Sheets and Lab Reports
Appendix F	Lead Analyzer Test Results
Appendix G	Drawings of Sample Locations

**HAZARDOUS MATERIALS ASSESSMENT
URSA MAJOR ELEMENTARY SCHOOL REPLACEMENT
ANCHORAGE, ALASKA**

OVERVIEW

Ursa Major Elementary School, located in Anchorage, Alaska, was surveyed for the presence of asbestos-containing materials (ACM), and other potentially hazardous materials as a part of the design services for the Ursa Major Elementary School Replacement Project at the school for the Anchorage School District. The survey also provided a “good faith” inspection for hazardous materials that may be disturbed during the demolition. The proposed work includes the disturbance, demolition, removal and disposal of lead-containing paints and/or lead-containing materials that is incidental to the demolition project. Mr. Travis W. Hubbard and Mr. Fisher G. Gandel of EHS-Alaska, Inc. (EHS-Alaska) conducted the inspections in February and April 2025, and Mr. Gandel also conducted the soil screening for PCB's in June 2025. It will be the contractor's responsibility to take this baseline data, and to conduct hazardous materials removal in compliance with all regulatory requirements. This assessment includes data from previous inspections of the facility.

A. GENERALIZED REQUIREMENTS FOR HAZARDOUS MATERIALS

Potentially hazardous materials have been identified in Ursa Major Elementary School that will be affected by the proposed demolition. Those materials include asbestos, lead, polychlorinated bi-phenyls (PCBs), mercury, and radioactive materials. Not all materials were tested for potentially hazardous components, other potentially hazardous materials, including those exterior to the building, such as contamination from underground fuel tanks may be present, but are not part of this report.

Buildings or portions of buildings that were constructed prior to 1978 which are residences, or contain day care facilities, kindergarten classes or other activities frequently visited by children under 6 years of age are classified as *child occupied facilities* for work that disturbs or removes lead-based paints. All work which is NOT classified as “minor repair and maintenance activities” (as defined by the regulations), that takes place in the “*child occupied*” portions of facilities must comply with the requirements of 40 CFR 745. Although originally constructed in 1952, this building is not currently classified as a *child occupied facility* and therefore the requirements of 40 CFR 745 are not applicable. See lead testing results and location drawings for additional information.

The removal and disposal of potentially hazardous materials are highly regulated, and it is anticipated that removal and disposal of asbestos, lead and chemical hazards will be conducted by a subcontractor to the general contractor who is qualified for such removal. It is anticipated that the general contractor and other trades will be able to conduct their work using engineering controls and work practices to control worker exposure and to keep airborne contaminants out of occupied areas of the building. Refer to Section 01 35 45, Airborne Contaminant Control.

Settled and concealed dusts in areas not subject to routine cleaning are present throughout the building, including the roof, and inside and on top of architectural, mechanical, electrical, and structural elements, and those dusts are assumed to contain regulated air contaminants. This should not be read to imply that there is an existing hazard to building occupants (normal occupants of the building as opposed to construction workers working in the affected areas). However, depending on the specific work items involved and on the means and methods employed when working in the affected areas, construction workers could be exposed to regulated air contaminants from those dusts in excess of the OSHA Permissible Exposure Limits (PELs).

The settled and concealed dusts were examined by an EPA Certified Building Inspector but were not sampled. The inspector determined that the dusts are not “asbestos debris” from an asbestos-containing

building material (ACBM). Based on similar sampling from similar buildings, the inspector also determined that the dusts are unlikely to contain more than one percent (1%) asbestos by weight, and therefore are not an asbestos-containing material (ACM). Reference 40 CFR 763.83.

“Awareness training” (typically 2 hours) and possibly respiratory protection will be required for all Contractor Personnel who will be disturbing the dusts. The extent of the training and protective measures will depend upon the airborne concentrations measured during air monitoring of the contractors work force, which depends on the means and methods employed to control the dusts. The air monitoring may be discontinued following a “negative exposure assessment” showing that worker exposures are below the OSHA permissible exposure limits for the type of work and means and methods employed. Previous air monitoring from similar jobs with similar conditions may be used as historical data to establish a “negative exposure assessment”.

B. BUILDING DESCRIPTION

Ursa Major Elementary School was originally constructed in 1952. In 1984 an addition was constructed near what is now the south side of the Library. That project also included construction of new rooms and remodeling of existing rooms in the same area. In 1997 two major additions were constructed on the south side of the school. During that project, areas of the existing building configurations and finishes were removed, replaced, or reconstructed, however, very little work was done throughout much of the original building.

There have been various documented upgrades throughout the years which include:

A 1955 project that refinished a former stairwell in the MPR; a 1964 project that converted a second floor classroom into a music room; a 1965 Water Meter Installation; a 1970 Remodeling Project that made various typically minor changes throughout the school; a 1978 Remodeling Project that installed a sprinkler system and improved fire resistivity to various components throughout the school, along with other minor changes; a 1982 project that constructed a hockey rink and supporting equipment; a 1984 HVAC Improvements Project that replaced the unit ventilators throughout the school; the 1984 Library Addition; a 1984 project that installed intercoms and related equipment throughout the school; a 1984 project that included renovation of rooms now labeled 149, 150, 151, 151A, 151B, 153, and 154; a 1988 project that refinished the Gym and MPR floors, the MPR Stage and associated stairs; a 1988 Ventilation Modifications Project that added exhaust systems to select first and second floor toilet rooms along with new unit ventilators in adjacent rooms; a 1991 Life Safety Upgrades Project that made various minor changes to select areas of the first and second floors; a 1994 project that installed an elevator and related equipment; the 1997 Addition Project; a 1991 Domestic Water Upgrades Project that replaced most of the original domestic water piping; a 2002 project that added computer data lines in areas of the building; a 2002 project that replaced window walls throughout much of the original portions of the school was reportedly delayed and was redesigned and constructed in 2005; a 2003 project that constructed a Boiler and Generator Building to the east of the building and made changes to the existing equipment within the building to accommodate the new systems; and a 2012 Fire Alarm Upgrades project.

Additional project information was found in the archives of EHS-Alaska which include: a 1988 project which reportedly removed portions of the asbestos-containing Thermal System Insulation (TSI) in the Mechanical Room; a 1991 project which made emergency repairs to a leaking pipe under the MPR stage; destructive roof investigations were performed in 1995 but the documentation was not clear to the purpose of the investigations and no sampling was performed; a 2002 project that cleaned ducts in the building; a 2004 project that upgraded door hardware throughout the building; a 2009 “Energy Conservation Measures” project that replaced light fixtures in portions of the school; a 2012 project that replaced the flooring finishes in the Nurse’s Room; and a 2014 project that replaced the stairwell on the northeast side of the building.

It is anticipated that other changes may have occurred that were either undocumented or the documentation was lost, such as for maintenance activities.

The two-story building has a concrete slab on grade foundation throughout all eras, and the original 1952

era has reinforced cast in place concrete floors, walls, ceilings, and roof deck. Other portions of the building are a mixture of concrete block or wood frame construction.

Floors were typically finished with vinyl floor tiles or carpet. Ceramic floor tiles were noted in the restrooms, and sheet vinyl was typically found in classroom restrooms. Various types of flooring were noted in the school, including a poured rubber floor in the Gym.

Interior partitions throughout the building were typically of wood framed construction. Walls were typically finished with gypsum board. Because of the various upgrades to finishes throughout the original portions of the building, many of the walls are expected to be a combination of older walls with asbestos-containing joint compound and newer walls with non-asbestos-containing joint compound. Glued-on acoustic wall panels were typically found in the older classrooms, and various wainscot finishes were noted throughout the school. Cement asbestos board was found on the walls of the second floor fan room on the east side of the building. Ceramic wall tiles were typically found in the restrooms.

Older classrooms typically had glued-on acoustic ceiling tiles. Isolated areas of gypsum board ceilings were observed. Otherwise, ceilings typically had lay-in ceiling tiles throughout the building. Older plaster ceilings were found above the lay-in ceiling in some areas.

The original portions of the exterior of the school typically had painted concrete walls. Split face CMU and Exterior Finish Insulation System were found on the exterior of the 1984 Library Addition. The exterior of the 1997 additions were a mixture of differing types of concrete walls and corrugated metal siding.

The original 1952 era built-up roof was shown as being covered by another built-up roof during the 1997 additions. A metal snow drift displacement roof was constructed over the original built-up roof on the south side of the 1952 era during the 1997 addition of the Gymnasium. The original 1984 addition EPDM-style roof was removed and replaced with a built-up roof in 1997. The 1997 era roofs were of built-up construction.

The entire school was originally heated by steam from the Fort Richardson steam system, but an exterior boiler building was added in 2003. The heat piping, roof drain piping, and the domestic water piping in the original building had asbestos-containing insulation on piping runs and at the fittings and were located above the ceiling and often concealed inside of the walls. The asbestos-containing insulation was removed from the majority of the utilidor piping and heating piping. Portions of the asbestos-containing insulation on the original domestic water piping has also been removed. Older piping from each of these systems inside of walls and above the ceiling on the second floor is known to be insulated with asbestos-containing insulation.

The building was heated by a variety of heating systems. Classrooms were heated by cabinet unit ventilators and had window mounted exhaust fans in addition to a central, ducted exhaust system. The MPR, gymnasium, art room, stage area, and the IMC and adjacent workrooms were heated by separate ducted, hydronic fan-coil heating and ventilation systems. The kitchen area was serviced by a suspended cabinet unit heater and separate exhaust system. The accessible heating and domestic water piping was typically insulated with fiberglass. Older piping inside walls and above the ceiling, as well as the heating piping under the cabinets on the second floor was known to be insulated with asbestos-containing insulation.

C. SAMPLING AND ANALYSIS

1. Asbestos-Containing Materials

The following tables include sampling from different previous projects, and may include data from different portions of the building. Material Codes, like FT-1 for Floor Tile style 1, will change between the various projects, and readers should refer to the material descriptions rather than the Material Codes.

The survey included sampling of suspect ACM materials that had not been sampled in prior asbestos surveys, or samples of materials where previous sampling had been inconsistent. Refer to the AHERA asbestos management plan available for review in the Anchorage School District offices for information on previous sampling which is not included in this report. Additional testing of materials pertinent to the project, including asbestos and lead was conducted and is included in this report.

The samples were analyzed for the presence of asbestos using polarized light microscopy (PLM), analysis, as recommended by EPA, to determine the composition of suspected ACMs (EPA method 600/R-93/116). Only materials containing more than 1% total asbestos were classified as “asbestos-containing” based on EPA and OSHA criteria. Samples analyzed to have less than 10% asbestos were “point-counted” by the laboratory for more accuracy. Samples listed as having a “Trace by Point Count” had asbestos fibers found in the material, but the fibers were not present at the counting grids. Table 1 in Part D below contains a summary list of the asbestos bulk samples and the applicable results.

EPA regulations under 40 CFR 763 require the use of PLM to determine whether or not a material contains asbestos. While PLM analysis does a good job for most materials, it does have some limitations. Fibers may be undetectable if their small size prevents visibility under a standard optical microscope, or if they are bound in an organic matrix to the point that the fibers are obscured. At the discretion of the building inspector and the client, some types of samples may be analyzed or re-analyzed by what is called Transmission Electron Microscopy for Non-Friable Organically Bound (TEM NOB) materials. TEM NOB analysis was not done for this project.

Field survey data sheets and laboratory reports of the bulk samples are included in Appendix A. Drawings showing sample locations are included as Appendix G.

2. Lead-Containing Materials

Nearly all surfaces in the building were coated with paint and most surfaces had been repainted. EHS-Alaska tested representative paints throughout the affected areas of the building using a SciAps X-550 Pb X-Ray Fluorescence (XRF) lead paint analyzer (Serial # 01052 with firmware version 2.6.1.4). The lead testing conducted was not a Lead-Based Paint Inspection or Screening as defined by Department of Housing and Urban Development (HUD) or EPA regulations, but was done to test surfaces that may be representative of those likely to be affected by this project. If surfaces and materials other than those tested are identified, the Contractor shall test and treat appropriately. Refer to the Lead Analyzer Test Results Table in Appendix D that identifies the surfaces tested, and the results. All surfaces affected by this project may not have been tested and therefore additional sampling may be required to refute the presence of lead-containing materials regulated by 29 CFR 1926.62.

Refer to the Lead Analyzer Test Results Table in Appendix F that identifies the surfaces tested, and the results. All surfaces affected by this project may not have been tested and therefore additional sampling may be required to refute the presence of lead-containing materials regulated by 29 CFR 1926.62

EPA and HUD have defined lead-based paint as any paint or other surface coating that contains lead equal to or in excess of 1.0 milligram per square centimeter (mg/cm²) or 0.5 percent by weight. XRF results are classified as positive (lead is present at 1.0 mg/cm² or greater), negative (less than 1.0 mg/cm² of lead was present) or inconclusive (the XRF could not make a conclusive positive or negative determination). Tests that were invalid due to operator error are shown as void tests.

A Performance Characteristic Sheet (PCS) for the SciAps X-550 Pb and Heuresis Pb200i is available upon request. This PCS data provides supplemental information to be used in conjunction with Chapter 7 of the “HUD Guidelines”. Performance parameters provided in the PCS are applicable when operating the instrument using the manufacturer’s instructions and the procedures described in Chapter 7 of the “HUD Guidelines”. The instrument was operated in accordance with manufacturer’s instructions and Chapter 7 of the HUD Guidelines. No substrate correction is required for these instruments. There is no inconclusive classification for this instrument when using the 1.0 mg/cm² threshold.

3. Testing of Paints and Sealants for PCB’s

Representative paint and sealant samples were collected from Ursa Major Elementary School and analyzed for total PCBs. Samples of paint were collected by scraping the paint down to bare substrate, or by cutting out a portion of the sealants. Samples were analyzed for total PCBs by EMSL Analytical, Inc, 200 Route 130 North, Cinnaminson, New Jersey. Results of the total PCB analysis for each sample was used to determine if the dried paint or sealants are considered PCB bulk product waste. Field Survey Data Sheets and Lab results are included in Appendix D. Drawings showing sample locations is provided in Appendix G.

4. Screening of Soils for PCB's

Because of the presence of low concentrations of PCB's in the exterior paints of the older section of the school, EHS-Alaska was requested to collect representative soil samples around the perimeter of the Ursa Major Elementary School and analyzed for total PCBs. The sampling was NOT done as part of a spill investigation or site characterization effort, but was done to provide additional information about potential PCB's in the soil surrounding the school. Soil samples were collected on June 6, 2025 and typically taken from an approximately 1 square foot area, with 5 sub-samples taken from the 4 corners, and center of the area where the overlying grass layer was removed. The sub-samples were typically taken from the upper level of the soil. The soil samples were analyzed for PCBs by Alliance Technical Group, 3600 Fremont Avenue N, in Seattle, Washington. Field Survey Data Sheets and Lab results are included in Appendix D. Drawings showing sample locations is provided in Appendix G.

D. SURVEY RESULTS

1. Asbestos-Containing Materials

The following tables include sampling from different previous projects, and may include data from different portions of the building. Material Codes, like FT-1 for Floor Tile style 1, will change between the various projects, and readers should refer to the material descriptions rather than the Material Codes.

The following Table 1A includes samples taken in April 2025 as verification samples. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix G for sample locations.

TABLE 1A

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UMES250416-A01	Black, tarry, pliable, speaker box acoustic mastic	Classroom 130, inside metal speaker box housing located at northeast side of the classroom. P10T	None Detected
UMES250416-A02	Troweled on brittle black wall mastic and tan rigid wall mastic	Room 180, northwest side of room adjacent to metal door frame. Between painted plywood and gypsum wallboard. P23T	None Detected
UMES250416-A03	Off-white plaster	Corridor at Room 180, beneath carpet wall covering and gypsum wallboard on concrete. P31T	None Detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

The following Table 1B lists the samples taken in February 2025 throughout the building, but mainly in the 1997 era, and the results of the laboratory analysis. Asbestos field survey data sheets and laboratory reports are included as Appendix A. Refer to Appendix G for sample locations.

TABLE 1B

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UMES2502-A01	Light Brown Wainscot Mastic	North corner of front entrance vestibule, beneath white raised 2" square pattern plastic wainscot. P-73T	None Detected
UMES2502-A02	FT-4; 9x9" Dark Maroon Floor Tile, Black FT Mastic, Yellow Carpet Mastic	Office 101, near wall, left of doorway to Room 108, where dividing wall was previously removed. P-88T	FT – 6% Chrysotile, YM – ND, BM- ND
UMES2502-A03	FT-1; 12x12" White Floor Tile w/ Monodirectional Grey, Lt. Grey, and Lt. Pink Smears, Yellow FT Mastic, Off-white Leveling Compound	Office 101, near wall, left of doorway to Room 108, where dividing wall was previously removed. P-89T	All 3 Layers None Detected
UMES2502-A04	SV-1; Lt. Blue/Green Sheet Vinyl w/ White & Dk. Green Specks, Yellow Mastic, SV-2; Tan Sheet Vinyl w/ White Streaks, Black Mastic	Office Bathroom 107, South Corner. P-96T	All 4 Layers None Detected
UMES2502-A05	SV-3; Off-white Sheet Vinyl w/ Small Red & Black Specks, Tan Mastic	Kitchen 115, a few feet west of the double door entrance. P-178T	Both Layers None Detected
UMES2502-A06	SV-4; White Sheet Vinyl w/ Blue & Pink & Brown Pebble Pattern, Dk. Yellow Mastic	Kitchen Office 116, adjacent to the doorway. P-173T	Both Layers None Detected
UMES2502-A07	Acoustic Plaster Wall Coating	MPR 117, on top half of northwest concrete wall, within GWB soffit. Right of kitchen doors. P-210T	2 % Chrysotile
UMES2502-A08	Acoustic Plaster Wall Coating	MPR 117, on top half of northwest concrete wall, within GWB soffit. At access panel. P-214T	2 % Chrysotile
UMES2502-A09	CB-3; 6" Lt. Lavender Cove Base, Clear CB Mastic	Stage 121, from corner left of southeast double doors. P-237T	Both Layers None Detected
UMES2502-A10	Joint Compound ('95 Era)	Stage 121, from corner left of southeast double doors, behind cove base. P-237T	None Detected
UMES2502-A11	Off-white Carpet Mastic (CPT-3; Black Woven Short-shag)	Stage 121, from corner left of southeast double doors. P-237T	None Detected
UMES2502-A12	FT-1; 12x12" White Floor Tile w/ Monodirectional Grey, Lt. Grey, and Lt. Pink Smears, Yellow Mastic	Stage Storage 123, from right of doorway. P-242T	Both Layers None Detected
UMES2502-A13	Cream Stair Riser Mastic	Stage 121, northwest stairway, beneath riser. P-244T	None Detected
UMES2502-A14	Off-white/Clear Stair Tread Mastic	Stage 121, northwest stairway, beneath tread. P-244T	Both Layers None Detected

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UMES2502-A15	WT-1; Tan Perlite Wall Texture	Corridor 1002, west wall, where corner of bathroom extrudes. P-246T	None Detected
UMES2502-A16	Red & Yellow Nose Trim Mastics	Stage 121, at edge of stage on east side, beneath trim. P-247T	Both Layers None Detected
UMES2502-A17	Yellow Carpet Mastic (CPT-3; Black Woven Short-shag)	Corridor 1003, left of door to Classroom 130. P-266T	None Detected
UMES2502-A18	Joint Compound, GWB ('95 Era)	Classroom 130, southern corner under CB, left of door to exterior. P-267T	Both Layers None Detected
UMES2502-A19	FT-9; 12x12" Non-skid Grey Floor Tile w/ Black Specks and Small ½" Square Pattern, Yellow Mastic	Classroom 130, from tiled area in front of exterior door. P-269T	Both Layers None Detected
UMES2502-A20	LCT-3; 2x4' Lay-in Ceiling Tile w/ Random 1/8" Pinholes & Straight Edges	Classroom 130, from ceiling a few feet left of door to hallway. P-272	None Detected
UMES2502-A21	Grey Sink Undercoating	Classroom 127, from sink on southeast wall. P-307T and P-312T	None Detected
UMES2502-A22	SV-5; Tan Sheet Vinyl w/ Grey, White, and Orange Specks, Yellow Mastic	Bathroom 127A, right of doorway. P-314T	Both Layers None Detected
UMES2502-A23	Tan Wall Panel Mastic	Bathroom 130A, from northwest wall beneath white raised 2" square pattern paneling. P-318T	None Detected
UMES2502-A24	Tan Spray-on Fireproofing (SOF)	Library 141, above ceiling near southeast wall. P-326T	None Detected
UMES2502-A25	Tan Spray-on Fireproofing (SOF)	Library 141, above ceiling just northwest of south corner. P-328T	None Detected
UMES2502-A26	Tan Spray-on Fireproofing (SOF)	Library 141, above ceiling at midpoint between central column and southwest wall, where SOFP begins. P-331T	None Detected
UMES2502-A27	CB-4; 4" Lt. Brown Cove Base, Black CB Mastic	Library 141, from column at midpoint of southwest wall. P-339T	None Detected
UMES2502-A28	WT-2; White Orange Peel Wall Texture	Library 141, from column at midpoint of southwest wall. P-340T	None Detected
UMES2502-A29	Joint Compound, GWB ('82 Era)	Library 141, from left corner of southwest column and wall. P-342T	Both Layers None Detected
UMES2502-A30	Orange & Black Carpet Mastics (CPT-4)	Library 141, right of southwest column, from floor that was '52 era. P-384T	None Detected
UMES2502-A31	Yellow Wall Carpet Mastic	Library 141, from southeast wall column, under wall carpet. P-388T	None Detected
UMES2502-A32	Yellow Carpet Mastic (CPT-4)	Library 141, left of southeast wall column, from floor that was '82 era. P-389T	None Detected

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UMES2502-A33	Yellow Carpet Mastic (CPT-4)	Library Room 142, near southeast wall, from floor that was '52 era. P-395T	None Detected
UMES2502-A34	Joint Compound ('82 Era)	Library 141, from northwest wall above doorway and lay-in ceiling. P-404T	None Detected
UMES2502-A35	SV-6; Sheet Vinyl w/ Brown & Tan Pebble Pattern, Black Mastic, Tan Mastic	Library Room 144, in front of doorway. P-406T	20 % Chrysotile
UMES2502-A36	WT-2; White Orange Peel Wall Texture	Library 141, from northwest wall, a few feet right of doorway. P-408T	None Detected
UMES2502-A37	Ceramic FT Grout	Restroom 137, just past entrance vestibule. P-433T	None Detected
UMES2502-A38	SV-4; White Sheet Vinyl w/ Blue & Pink & Brown Pebble Pattern	Classroom 151, at threshold to hallway. P-500T	Both Layers None Detected
UMES2502-A39	Tan Utilidor Insulation Fiber Board, Black Hot Mop Tar	Basement 38, at west utilidor entrance. P-565T	Both Layers None Detected
UMES2502-A40	Olive Gasket on Heating Pipe Flange	Basement 35, north corner, at utilidor entrance. P-568T	Both Layers None Detected
UMES2502-A41	Wall Plaster, Skim Coat	Classroom 213, northeast wall. P-250F	Both Layers None Detected
UMES2502-A42	Ceiling Plaster, Skim Coat	Corridor 1200, above ceiling, where era changes from '52 to '95, near left double doors. P-1019T	Both Layers None Detected
UMES2502-A43	CB-2; 6" Black Rubber Cove Base, Tan Mastic	Corridor 1200, across from left edge of double doors, at column. P-1020T	Both Layers None Detected
UMES2502-A44	Yellow Carpet Mastic (CPT-3; Black Woven Short-shag)	Corridor 1200, across from left edge of double doors, beneath column. P-1020T	None Detected
UMES2502-A45	White Duct Seam Sealant Tape	Gym Fan Room 286, from major duct near ladder. P-271F	None Detected
UMES2502-A46	Joint Compound, GWB ('95 Era)	Gym Office 188, west corner. P-1036T	Both Layers None Detected
UMES2502-A47	FT-1; 12x12" White Floor Tile w/ Monodirectional Grey, Lt. Grey, and Lt. Pink Smears, Yellow Mastic	Gym Office 188, west corner. P-1037T	Both Layers None Detected
UMES2502-A48	Brown Wall Panel Mastic	Gym 184, from northeast wall near doors, behind fiberglass-reinforced paneling. P-1051T	None Detected
UMES2502-A49	CB-5; 4" Gray Cove Base, Tan Mastic	Generator Room, south wall. P-277F	Both Layers None Detected
UMES2502-A50	Brick Red Firestop	Generator Room, northeast corner, high up at wall penetration for piping. P-279F	None Detected

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UMES2502-A51	Off-white Pliable Seam Sealant	Generator Room, at edge of outside air louver at East side. P-1135T	None Detected
UMES2502-A52	Joint Compound (~'04 Era)	Generator Room, northeast corner, high up beneath wall penetration for piping. P-280F	None Detected
UMES2502-A53	Off-White Duct Mastic	Generator Room, adhering fiberglass insulation to metal duct. P-1147T	None Detected
UMES2502-A54	Joint Compound (~'04 Era)	Boiler Room, southwest corner. P-285F	None Detected
UMES2502-A55	Tan/Yellow Penetration Sealant	Boiler Room, southeast corner, high up at penetration for piping. P-1147T	None Detected
UMES2502-A56	Joint Compound (~'04 Era)	Boiler Room, west wall, above sink. P-288F	None Detected
UMES2502-A57	Mint Green Gasket, on Heating Return Pipe	Boiler Room, on west (back) side of boiler #1. P-1151T	None Detected
UMES2502-A58	White/Yellow Rope Gasket at Smoke Box to Boiler Joint	Boiler room, on west (back) side of boiler #2 P-1160T	None Detected
UMES2502-A59	Mint Green Gasket on Flange of Glycol Supply	Boiler Room, from piping to the right of boiler #3, close to sink. P-291F	None Detected
UMES2502-A60	Black Flange Gasket	Boiler Room Exterior, left of the double doors at the exterior vertical piping. P-1164T	None Detected
UMES2502-A61	Tan Pliable Door Frame Sealant	Boiler Room Exterior, between frame and wall of main double doors. P-1163T	None Detected
UMES2502-A62	White Seam Sealant	Tool Shed, at edge of plywood roof deck. P-1168T	None Detected
UMES2502-A63	Mineral Cap Rolled Roofing	Tool Shed, corner of roof. P-1167T	None Detected
UMES2502-A64	Gray Seam Sealant	School Exterior, at the corner of Office 101, between metal window trim and concrete. P-1182T	None Detected
UMES2502-A65	Black Window Frame Gasket	School Exterior, middle of Office 101's window, between glass and framing. P-1184T	None Detected
UMES2502-A66	Grey Pliable Window Frame Sealant	School Exterior, at west corner of Classroom 153, between metal frame and concrete. P-1192T	None Detected
UMES2502-A67	Grey Pliable Concrete Seam Sealant	School Exterior, at middle of Classroom 153's windows, where concrete sill sections connect. P-1194T	None Detected

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UMES2502-A68	White Pliable Door Frame Seam Sealant	School Exterior, outside Vestibule 1101, between metal door frame and concrete. P-1210T	Grey Sealant - 7 % Chrysotile, White Sealant - ND
UMES2502-A69	Grey Pliable Window Frame Sealant	School Exterior, at corner of Classroom 157 and Library 141, between frame and concrete. P-1248T	None Detected
UMES2502-A70	Dark Grey Window Frame Sealant	School Exterior, Kindergarten 130, left side, between window frame and concrete. P-1258T	None Detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1C includes samples taken in June 2022 related to proposed seismic repairs, and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix G for sample locations.

TABLE 1C

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM0622-A01	White joint compound, appears to be thick skim coat	First Floor Room 102: North corner of room above suspended ceiling at old pipe chase, on gypsum wall board. Photo 17 JHL	Both Layers None Detected
UM0622-A02	Gypsum wall board, older	First Floor Room 102: North corner of room above suspended ceiling at old pipe chase, gypsum wall board. Photo 18 JHL	None Detected
UM0622-A03	White joint compound	First Floor Room 102: North corner of room above suspended ceiling at new pipe chase, on gypsum wall board. Photo 19 JHL	None Detected
UM0622-A04	Gypsum wall board, newer	First Floor Room 102: North corner of room above suspended ceiling at new pipe chase, gypsum wall board. Photo 19 JHL	None Detected
UM0622-A05	White 12" x 12" smooth-face fiberglass ceiling tile	First Floor Room 102: North corner of room above drop ceiling, directly adhered to bottom side of concrete decking. Photo 24 JHL	Both Layers None Detected
UM0622-A06	Hard dark brown ceiling tile mastic to Sample A05 **ignore fiberglass, same as sample A05**	First Floor Room 102: North corner of room above drop ceiling, adhering fiberglass ceiling tile to the bottom side of the concrete decking. Photo 24 JHL	None Detected
UM0622-A07	2' x 4' lay in ceiling tile with beveled edges, 4" squares, 1/4 to 1/2-inch fissures, and 1/8 to 1/16-inch holes	First Floor Room 102: Typical ceiling tile throughout room on screwed-in ceiling grid. Photo 27 JHL	None Detected

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM0622-A08	6" black vinyl cove base; cream cove base mastic	Second Floor Classroom 235: Southwest quadrant of room adhered to marlite wall board. Photo 15 RAF	Both Layers None Detected
UM0622-A09	Hard dark brown cove base mastic; dark brown marlite	Second Floor Classroom 235: Southwest quadrant of room, remnant mastic under black cove base to marlite wall board. Photo 15 RAF	Both Layers None Detected
UM0622-A10	White 1' x 2' smooth-face fiberglass wall tile	Second Floor Classroom 235: West corner of room adhered to unfinished gypsum wall board with dark brown mastic. Photo 37 JHL	Both Layers None Detected
UM0622-A11	Hard dark brown wall tile mastic to sample A10 **ignore fiberglass, same as sample A10**	Second Floor Classroom 235: West corner of room adhering fiberglass wall tile to gypsum wall board. Photo 37 JHL	None Detected
UM0622-A12	White 12" x 12" smooth-face fiberglass ceiling tile	Second Floor Classroom 235: West corner of room directly adhered to unfinished gypsum board with dark brown mastic. Photo 38 JHL	None Detected
UM0622-A13	Hard dark brown ceiling tile mastic to sample A12 **ignore fiberglass, same as sample A12**	Second Floor Classroom 235: West corner of room adhering fiberglass ceiling tile to unfinished gypsum board. Photo 39 JHL	None Detected
UM0622-A14	Unfinished gypsum board	Second Floor Classroom 235: West corner of room under fiberglass ceiling tile. Photo 41 JHL	None Detected
UM0622-A15	Hard grey floor tile, (can't tell size); with black mastic; with sticky cream carpet mastic	Second Floor Classroom 235: South quadrant of room underneath blue short shag carpet, at transition strip to rubber flooring, adhered to concrete with black mastic. Photos 16-18 RAF	FT = 5.8% Chrysotile, Black Mastic = 1.2% Chrysotile, Cream Mastic = ND
UM0622-A16	Sticky cream carpet mastic	Second Floor Classroom 235: south quadrant of room adhering blue short shag carpet to grey floor tile. Photo 46 JHL	None Detected
UM0622-A17	White joint compound; gypsum wall board, newer	Second Floor Mechanical Room 236: South wall of mechanical room at new patch in wall, unfinished gypsum wall board. Photo 57 JHL	Both Layers None Detected
UM0622-A18	White joint compound; gypsum wall board, older	Second Floor Mechanical Room 236: East wall of mechanical room at older gypsum wall board wall. Photo 59 JHL	JC = 1.5% Chrysotile, GWB = ND
UM0622-A19	Maroon floor tile (can't tell size); with tarry black mastic	Second Floor Mechanical Room 236: East wall of mechanical room at door threshold, underneath 12" x 12" beige birch bark floor tile, adhered to concrete with black mastic. Photo 77 JHL	FT = 6.1% Chrysotile, Black Mastic = Trace

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM0622-A20	White 12" x 12" smooth-face fiberglass ceiling tile	Second Floor Corridor 2000: Adjacent to classroom 225 above drop ceiling. Photo 75 JHL	None Detected
UM0622-A21	Hard dark brown ceiling tile mastic to sample A20 **ignore fiberglass, same as sample A20**	Second Floor Corridor 2000: Adjacent to classroom 225 above drop ceiling, adhering fiberglass ceiling tile to gypsum board. Photo 75 JHL	None Detected
UM0622-A22	Gypsum wall board	Second Floor Corridor 2000: Adjacent to classroom 225 above suspended ceiling, gypsum wall board. No Photo #	None Detected
UM0622-A23	Cream 12"x12" birch bark floor tile; hard brown mastic	Second Floor Corridor 2000: Adjacent to classroom 223, above and adhered to Sample A24. Photo 78 JHL	Both Layers None Detected
UM0622-A24	Maroon floor tile; with tarry black mastic (bottom); with hard brown mastic (top)	Second Floor Corridor 2000: Adjacent to classroom 223 underneath Sample A23, adhered to concrete with black mastic. Photo 78 JHL	FT = 6.1 % Chrysotile, Black Mastic = ND
UM0622-A25	Tan pliable mastic for faux 2" x 2" marlite wall tile	Second Floor Corridor 2000: Adjacent to classroom 223 adhering marlite wall panel to plywood substrate. Photo 79 JHL	None Detected
UM0622-A26	6" flexible beige cove base; pliable cream cove base mastic	Second Floor Corridor 2000: Adjacent to classroom 223 adhered to marlite wall panel with cream mastic. Photo 80 JHL	Both Layers None Detected
UM0622-A27	White joint compound; gypsum wall board	Second Floor Corridor 2000: Adjacent to classroom 223 above suspended ceiling, gypsum board. Photo 68 RAF	JC = 1.3% Chrysotile
UM0622-A28	White joint compound	Second Floor Corridor 2000: Adjacent to classroom 224, white skim coat under wall carpet, on metal nosing. Photo 85 JHL	None Detected
UM0622-A29	Soft cream wall carpet mastic	Second Floor Corridor 2000: Adjacent to classroom 224 adhering wall carpet to skim coat over marlite. Photo 81 JHL	None Detected
UM0622-A30	Dark brown marlite wall board; white joint compound skim coat	Second Floor Corridor 2000: Adjacent to classroom 224 under wall carpet and over gypsum wall board. Photo 86 JHL	Both Layers None Detected
UM0622-A31	Gypsum wall board	Second Floor Corridor 2000: Adjacent to classroom 224 under marlite wall board. Photo 86 JHL	None Detected
UM0622-A32	Green 9" x 9" floor tile; with tarry black mastic (bottom); with sticky cream carpeted mastic (top)	Second Floor Classroom 223: At threshold to room, underneath blue short shag carpet and adhered to concrete with black mastic. Photo 69 RAF	FT = 5.7% Chrysotile, Both Mastics = ND

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM0622-A33	Tarry black floor tile mastic	Second Floor Classroom 213: Left of door to classroom, adhering brown floor tile to concrete. Photo 95 JHL	None Detected
UM0622-A34	Brown floor tile; with sticky cream carpet mastic **ignore black mastic, same as sample A33**	Second Floor Classroom 213: Left of door to classroom, underneath blue short shag carpet adhered to concrete with black mastic. Photo 95 JHL	FT = 4.8% Chrysotile, Mastic = ND
UM0622-A35	White plaster finish coat **ignore hard brown mastic, same as sample A36**	Second Floor Classroom 213: Left of door to classroom, finish coat over scratch coat, brown mastic for cove base. Photo 95 JHL	None Detected
UM0622-A36	6" flexible dark brown cove base; pliable brown cove base mastic	Second Floor Classroom 213: Left of door to classroom, adhered to white plaster finish coat with brown mastic. Photo 95 JHL	Both Layers None Detected
UM0622-A37	White plaster finish coat; grey scratch coat	Second Floor Classroom 213: North side of classroom, plaster finish and scratch coat over concrete. Photo 97 JHL	None Detected
UM0622-A38	White plaster finish coat, grey scratch coat	Second Floor Classroom 212: South corner of classroom, plaster finish and scratch coat over concrete. Photo 78 RAF	Both Layers None Detected
UM0622-A39	Plywood with paint and nail hole patch	Second Floor Classroom 212: South corner of classroom, painted wood trim over plaster. Photo 78 RAF	None Detected
UM0622-A40	Tan rubber flooring; hard tan mastic, hard grey leveling compound	Second Floor Classroom 212: Southeast quadrant of classroom at carpet transition strip to rubber floor, over concrete. Photo 79 RAF	Tan Flooring = ND, FT = 4.6% Chrysotile, Mastic = ND
UM0622-A41	Soft cream wall carpet mastic; gypsum wall board; white joint compound	Stairwell 210: South quadrant of stairwell, wall carpet adhered with cream adhesive, over gypsum wall board. Photo 90 RAF	Both Layers None Detected
UM0622-A42	Sandy texture, white coating on concrete	Stairwell 210: South quadrant of stairwell, at short wall/ledge on concrete. Photo 91 RAF	None Detected
UM0622-A43	Sandy texture, white coating on concrete	Corridor 1000 & Corridor 1002: North wall adjacent to stairwell 210, on concrete. Photo 119 JHL:	None Detected
UM0622-A44	Soft cream wall carpet mastic	Corridor 1002: Northeast wall towards corridor 1000 adjacent to MPR 117, adhering wall carpet to joint compound. Photo 120 JHL	None Detected
UM0622-A45	White joint compound	Corridor 1002: Northeast wall towards corridor 1000 adjacent to MPR 117, on metal nosing over gypsum board. Photo 122 JHL	None Detected
UM0622-A46	White joint compound; gypsum wall board	Corridor 1002: Northeast wall towards corridor 1000 adjacent to MPR 117, gypsum wall board on metal stud. Photo 122 JHL	Both Layers None Detected

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM0622-A47	Hard brown wall tile mastic and remnant fiberglass wall tile	First Floor Room 150: North wall of room 150 above suspended ceiling, holding fiberglass wall tile to concrete. Photo 96 RAF	None Detected
UM0622-A48	White joint compound; gypsum wall board	First Floor Room 150: North wall of room 150 above suspended ceiling, gypsum board furred over concrete. Photo 96 RAF	Both Layers None Detected
UM0622-A49	2' x 4' 3/8" and smaller random circular pattern fissures, "galaxy" pattern with flat edge lay in ceiling tile	First Floor Room 150: Typical ceiling tile throughout room on nailed-in ceiling grid. Photo 105 RAF	None Detected
UM0622-A50	Hard white "fix all"; with sticky cream carpet mastic	First Floor Room 150: At threshold to room, under multicolored short shag carpet over concrete. Photo 107 RAF	Both Layers None Detected
UM0622-A51	Light brown 9" x 9" floor tile; with tarry black mastic (bottom); with sticky cream carpet mastic (top)	First Floor Room 150: South quadrant of room, under multicolored short shag carpet, adhered to concrete with black mastic. Photo 106 RAF	FT = 5.3% Chrysotile, Black Mastic = Trace
UM0622-A52	Soft cream wall carpet mastic	First Floor Vestibule 1001: Northwest wall of vestibule, adhering wall carpet to joint compound. Photo 123 JHL	None Detected
UM0622-A53	White joint compound **ignore cream mastic, same as A52**	First Floor Vestibule 1001: Northwest wall of vestibule, white skim coat under wall carpet over marlite board. Photo 124 JHL	None Detected
UM0622-A54	Dark brown marlite wall board; white joint compound	First Floor Vestibule 1001: Northwest wall of vestibule, under wall carpet and over gypsum wall board. Photo 124 JHL	Both Layers None Detected
UM0622-A55	Gypsum wall board **ignore dark brown marlite wall board, same as A54**	First Floor Vestibule 1001: Northwest wall of vestibule, gypsum board under marlite. Photo 125 JHL	None Detected
UM0622-A56	Tarry black (probably remnant) flooring mastic	First Floor Vestibule 1001: Southwest quadrant of vestibule, adhering multicolored short shag carpet to concrete. Photo 128 JHL	1.2 % Chrysotile
UM0622-A57	6" flexible beige cove base; with pliable tan and light brown cove base mastics	First Floor Vestibule 1001: Southwest wall of vestibule, adhered to marlite wall panel with tan mastic. Photo 130 JHL	Both Layers None Detected
UM0622-A58	Gypsum wall board	First Floor Vestibule 1001: Southwest wall of vestibule, gypsum wall board. Photo 132 JHL	Both Layers None Detected
UM0622-A59	Fluffy grey spray-on fireproofing	First Floor Library 141: Center of room near structural column above suspended ceiling on steel beam. Photo 156 JHL	None Detected

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM0622-A60	Hard dark brown remnant wall tile mastic; with remnant fiberglass from wall tile	First Floor Library 141: Center of room near structural column above suspended ceiling on unfinished gypsum wall board. Photo 158	None Detected
UM0622-A61	Fluffy gray spray-on fireproofing	First Floor Library 141: Center of room near structural column above suspended ceiling on wood framing. Photo 160 JHL	None Detected
UM0622-A62	Gypsum wall board, older	First Floor Library 141: Center of room near structural column above suspended ceiling, remnant unfinished gypsum wall board. Photo 161 JHL	None Detected
UM0622-A63	6" flexible beige cove base; with pliable cream cove base mastic; with tarry black carpet mastic; with white joint compound	First Floor Library 141: Center of room on south side of structural column, under wall carpet on gypsum board. Photo 118-119 RAF	All Layers = None Detected
UM0622-A64	White joint compound; gypsum wall board	First Floor Library 141: Center of room on south side of structural column, under wall carpet. Photo 120 RAF	JC = None Detected, GWB None Detected
UM0622-A65	Hard grey leveling compound; hard brown carpet mastic, with remnant tarry black mastic	First Floor Library 141: Center of room on south side of structural column, under blue short shag carpet, over concrete. Photo 121 RAF	All Layers = None Detected
UM0622-A66	White joint compound; gypsum wall board	First Floor Corridor 1100: Adjacent to classroom 154, above suspended ceiling, gypsum wall board. Photo 123 RAF	JC = 1.7% Chrysotile
UM0622-A67	Greenish Gray 9"x9" floor tile; with tarry black mastic **ignore tan mastic, same as A68**	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, underneath beige birch bark floor tile and adhered to concrete with black mastic. Photo 167 JHL	FT = 0.25% Chrysotile, Black Mastic = 1.2%
UM0622-A68	Beige 12"x12" birch bark floor tile; with hard tan mastic	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, adhered to 9"x9" green floor tile with tan mastic. Photo 166 JHL	Both Layers None Detected
UM0622-A69	White joint compound	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, behind plywood on gypsum wall board. Photo 168 JHL	None Detected
UM0622-A70	Gypsum wall board	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, gypsum wall board behind plywood. Photo 168 JHL	Both Layers None Detected
UM0622-A71	6" flexible beige cove base; with pliable cream cove base mastic	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, cove base adhered to marlite wall panel with cream mastic. Photo 170 JHL	Both Layers None Detected

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM0622-A72	Brown rubber flooring; with hard brown mastic	First Floor Classroom 157: North corner of room at transition from carpet to rubber floor, rubber floor adhered to green 9"x9" floor tile with brown mastic. Photo 140 RAF	Both Layers None Detected
UM0622-A73	Green 9"x9" floor tile; with tarry black mastic **ignore tan mastic, same as A72**	First Floor Classroom 157: North corner of room at transition from carpet to rubber floor, floor tile adhered to concrete with black mastic. Photo 140 RAF	FT = 6.8% Chrysotile, Black Mastic = ND
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1D includes samples taken in July 2022 in areas affected by the seismic investigation work and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix G for sample locations.

TABLE 1D

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM72922-A01	Red and light tan joint filler, plus plaster scratch coat	Room 150, East wall, lower left hand side at crack. Photos 8 & 9	All Layers = None Detected
UM72922-A02	Red and light tan joint filler	Room 150, East wall, upper right hand side at crack. Photos 10, 13 & 14	Both Layers None Detected
UM72922-A03	Light tan joint filler	Room 179, North wall, middle of wall. Photo 20	None Detected
UM72922-A04	Greenish tan mastic, likely to wood furring strip	Room 179, North wall, middle of wall. Photos 21 & 22	None Detected
UM72922-A05	Black tarry waterproofing on concrete	Room 179, North wall, left side of wall. Photo 23	6.7% Chrysotile
UM72922-A06	Possibly hot mop tar, adhering cork to concrete, more shiny	Room 236, South wall to the right of the ductwork. Photo 36	None Detected
UM72922-A07	Possibly waterproofing tar, dull finish	Room 236, South wall to the right of the ductwork. Photos 37 & 38	10% Chrysotile
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1E includes samples taken in April 2014 in areas affected by the exterior stair replacement work and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix G for sample locations.

TABEL 1E

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM0414-A01	Grey gasket for light fixture	From light fixture at bottom of stairs – Photo 29	None Detected
UM0414-A02	Brown mastic for cement board	From top of exterior 2nd floor wall at damaged area adjacent to stairs – Photo 30	None Detected
UM0414-A03	Black sealant for missing trim piece	From top of exterior 2nd floor wall at damaged area adjacent to stairs – Photo 31	None Detected
UM0414-A04	Grey cement board	From top of exterior 2nd floor wall at damaged area adjacent to stairs – Photo 32	30% Chrysotile
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1F includes samples taken in November 2005 in areas affected by the window replacement work and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix G for sample locations. Three other samples from the window replacement project were taken by Central Environmental Inc. in June 2003, and Appendix A has the chain of custody and laboratory results, but there are no sample locations for those samples.

TABEL 1F

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM1104-A1	Black water proofing below window sill on concrete	Room 220, below window sill 11:36 AM	10 % Chrysotile
UM1104-A2	Brown mastic under type 1 ceiling tile	Room 220, adjacent to windows 12:00 PM	None Detected
UM1104-A3	12 x 12 smooth ceiling tile - fiberglass matrix - Type 1	Room 220, adjacent to windows 4:40 PM	None Detected
UM1104-A4	Grey window caulking	Room 200, around windows	1.6 % Chrysotile
UM1104-A5	Grey window caulking	Room 220, around windows	Not Analyzed Assumed same as A4
UM1104-A6	12 x 24 smooth ceiling tile - fiberglass matrix - Type 2	Room 224, SE corner on wall by window and molding - 4:51 PM	None Detected
UM1104-A7	Brown mastic under type 2 ceiling tile	Room 224, SE corner on wall by window and molding	None Detected
UM1104-A8	White type 1 ceiling tile	Room 224, adjacent to windows 4:51 PM	None Detected
UM1104-A9	Brown mastic under type 1 ceiling tile	Room 224, adjacent to windows	None Detected
UM1104-A10	White type 1 ceiling tile	Room 157, adjacent to windows 4:45 PM	None Detected
UM1104-A11	Brown mastic under type 1 ceiling tile	Room 157, adjacent to windows	None Detected
UM1104-A12	Type 2 ceiling tile	Room 157, SW wall by molding 4:46 PM	None Detected

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM1104-A13	Brown mastic under type 2 tile	Room 157, SW wall by molding	None Detected
UM1104-A14	Type 2 ceiling tile	Room 164, NE wall by window and molding - 4:48 PM	None Detected
UM1104-A15	Brown mastic under type 2 tile	Room 164, NE wall by window and molding	None Detected
UM1104-A16	Type 2 ceiling tile	Room 165, SE wall by molding 4:50 PM	None Detected
UM1104-A17	Brown mastic under type 2 tile	Room 165, SE wall by molding	None Detected
UM1104-A18	Type 1 ceiling tile	Room 165, adjacent to windows 4:50 PM	None Detected
UM1104-A19	Brown mastic under type 1 tile	Room 165, adjacent to windows	None Detected
UM1104-A20	Brown mastic under type 1 tile	Room 118, under old tile above drop ceiling	None Detected
UM1104-A21	Type 1 ceiling tile	Room 118, old tile above drop ceiling	None Detected
UM1104-A22	Brown mastic under ceramic tile	Room 170, East wall above drop ceiling	None Detected
UM1104-A23	Green texture scraped off painted concrete ceiling	Room 170, above drop ceiling	2.0 % Chrysotile
UM1104-A24	Black marlite mastic	Room 207, behind door trim 4:34 PM	None Detected
UM1104-A25	Brown fibrous wall insulation	Room 220, in wall below windows	None Detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1G includes samples taken in March 2004 in areas affected by the door replacement work and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix G for sample locations.

TABLE 1G

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UM-A01	Brown Paper Insulation	Door 121 – Style 10 – Music Room	None Detected
UM-A02	Brown Paper Insulation	Door 124A – Style 9 – Music Room	None Detected
UM-A03	Yellow Fiberglass Insulation	Door 173 – Style 12 – Custodial Closet	None Detected
UM-A04	White Fibrous Insulation	Door 01 – Style 13 – Basement Storage Room	40% Chrysotile
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1H includes samples taken in April 2002 related to a duct cleaning project and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix G for sample locations.

TABLE 1H

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UJ4502-A01	Gray/pink sink undercoating	Classroom 223	None Detected
UJ4502-A02	Sprayed on Fireproofing	North IMC, Small Room	None Detected
UJ4502-A03	Brown ceiling tile mastic	NW quadrant of IMC, Old ceiling above lay-in ceiling tile	None Detected
UJ4502-A04	Sprayed on Fireproofing	NE quadrant of IMC, above lay-in ceiling tile	None Detected
UJ4502-A05	Sprayed on Fireproofing	Center of IMC on East side	None Detected
UJ4502-A06	Black cement asbestos board mastic	Fan Room with AHU-3, NE Corridor	None Detected
UJ4502-A07	Clock housing mastic	E Kindergarten Room	None Detected
UJ4502-A08	Gray duct sealant	Return air duct, Stage, Fan duct above ceiling	None Detected
UJ4502-A09	Black sound lining mastic	MPR AHU Discharge Plenum	None Detected
UJ4502-A10	Gray duct sealant	Exhaust Fan duct in MPR Fan Room	None Detected
UJ4502-A11	Gray clock housing mastic	Clock speaker box in Gym	None Detected
UJ4502-A12	Gray duct sealant	Art Room Air Handling Unit, return duct	None Detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1J includes samples taken in April 2001 in areas affected by the work and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix G for sample locations.

TABLE 1J

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UJ41001-A01	12"x12" Tan floor tile with gray and white streaks (FT-1) with tan mastic	Rm. 110, center of E. wall	Tile-None Detected Mastic-None Detected
UJ41001-A02	Tan mastic on marlite	Rm. 109 under sinks on S. wall	None Detected
UJ41001-A03	Sand stone sheet vinyl with red specks (SV-1)	Rm. 109, N. side of double doors to Cafeteria	None Detected
UJ41001-A04	Gray sink undercoat	Rm. 109 sink on W. wall	None Detected
UJ41001-A05	Light brown cove base mastic	Rm. 106, W. side of door	None Detected
UJ41001-A06	Beige sheet vinyl with minute white streaks (SV-2) with mastic	Rm. 106, W. side of door	Vinyl-None Detected Mastic-None Detected
UJ41001-A07	Dark brown cove base mastic	Rm. 106, W. side of door	None Detected
UJ41001-A08	Brown glued-on ceiling tile mastic	Rm. 101, SE corner of room	None Detected
UJ41001-A09	12"x12" Flat white glued on ceiling tile (GCT-1)	Rm. 101, SE corner of room	None Detected

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
UJ41001-A10	2'x4' Lay-in ceiling tile with 5" squares (LCT-1)	Rm. 101, SE corner of room	None Detected
UJ41001-A11	GCT-1	Rm. 114, 1 foot inside door to corridor	None Detected
UJ41001-A12	Brown glued-on ceiling tile mastic	Rm. 114, 1 foot inside door to corridor	None Detected
UJ41001-A13	2'x4' Lay-in ceiling tile with random ¾" fissures and dots (LCT-2)	Rm. 114, 1 foot inside door to corridor	None Detected
UJ41001-A14	12"x24" Glued-on ceiling tile with 1½" aligned fissures and dots (GCT-2)	Rm. 118, NW corner of room	None Detected
UJ41001-A15	Brown glued-on ceiling tile mastic	Rm. 118, NW corner of room	None Detected
UJ41001-A16	12"x12" Glued-on ceiling tile with 1½" aligned fissures and dots (GCT-3)	Rm. 124, 10 feet from S. wall, center of room	None Detected
UJ41001-A17	Tar paper (brown)	S. first floor restroom pipe chase, S. wall, W. end	None Detected
UJ41001-A18	Plaster base	S. first floor restroom pipe chase, S. wall, W. end	None Detected
UJ41001-A19	Black tar paper	S. first floor restroom pipe chase, S. wall, W. end	None Detected
UJ41001-A20	LCT-2	Boys' S. restroom, 1 st floor, E. end at angle center of room	None Detected
UJ41001-A21	Black cork mastic	Above Janitor Closet, N. restroom above attic entrance	None Detected
UJ41001-A22	Cream and light gray mosaic sheet vinyl with green and brown specks (SV-3)	Rm. 114, S. side of door to corridor	None Detected
UJ41001-A23	Black fiberboard mastic	S.E utilidor 10 feet S. of basement entrance, E. wall	None Detected
UJ41001-A24	LCT-1	Rm. 104, 5 feet N. of outside corner of closet	None Detected
UJ41001-A25	LCT-1	Rm. 103 center of room	None Detected
UJ41001-A26	LCT-2	SW corner of intersection of corridors 100 and 111	None Detected
UJ41001-A27	GCT-1	Rm. 201 over shelf area by door, center of shelf area 2 feet from wall	None Detected
UJ41001-A28	GCT-2	Rm. 201 over shelf area by door, center of shelf on soffit	None Detected
UJ41001-A29	GCT-2	Rm. 124, SW corner of room	None Detected
UJ41001-A30	GCT-3	S. end of W. set of light fixtures	None Detected
UJ41001-A31	GCT-3	S. end of E. set of light fixtures	None Detected
UJ41001-A32	White Joint compound	Room 111B Center of East wall	None Detected
UJ41001-A33	White Joint compound	Room 118B Center of East wall	None Detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1K includes samples taken in May 1991 in areas affected by the work and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. No sample location drawings are available for these samples.

TABLE 1K

SAMPLE NUMBER	MATERIAL	LOCATION	ASBESTOS CONTENT
MAA-01	Gypsum, Mud, Tape	Hallway, wall by office	2% Chrysotile
MAA-02	Gypsum, Mud	West vestibule	2% Chrysotile
MAS-03	12" x 12" Ceiling Tile	Teachers' lounge above stove	None Detected
MAS-04	12" x 24" Wall Tile	Classroom at soffit	None Detected
MAS-05	Yellow / Brown Mastic	Teachers' lounge ceiling	None Detected
MAR-06	Roof Tar and Patch	Roof above TL near vent	10% Chrysotile
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Other older testing data from 1988, 1994, 1995 and 1996 are included in Appendix A, but are not copied here. Most of that older testing does not have sample location drawings. Previous testing, partially included here, identified asbestos-containing hard and chalky "MAG" pipe insulation on the heat system piping, asbestos-containing corrugated paper "AIRCELL" pipe insulation on domestic water and roof drain piping, along with asbestos-containing floor tiles and black mastics throughout the original 1952 building.

The following materials have been found to contain asbestos in this or previous surveys, or were assumed to contain asbestos.

1. Spray on ("popcorn") green ceiling texture and overspray above ceiling in first floor bathrooms in the 1952 era (confirmed asbestos-containing).
2. Acoustic plaster wall coating in MPR 117 on top half of northwest concrete wall within gypsum wallboard soffit (confirmed asbestos-containing).
3. Joint compound in gypsum wallboard systems on the ceilings and walls in the 1952 era (confirmed asbestos-containing).
4. Cement asbestos board (CAB) in the 1952 era fan rooms and at exterior exit stair (confirmed asbestos-containing).
5. Tan, chip pattern sheet vinyl flooring and mastics in library room 144 and 144A in the 1952 era (confirmed asbestos-containing).
6. Black flooring mastic in the 1952 era, located throughout, some of the original asbestos floor tiles have been removed (confirmed asbestos).
7. Various colors of 9" x 9" vinyl asbestos tile in the 1952 era covered in many areas with carpeting or a second layer of 12" x 12" vinyl composition tiles (confirmed asbestos).
8. Door sealants in the 1952 era. (confirmed asbestos).
9. Remnants of window sealants in the 1952 era (confirmed asbestos-containing).
10. Flange gaskets on piping (assumed asbestos-containing) in all eras.
11. Tarry sound lining in clock/speaker boxes and ceiling mounted speaker boxes of 1952 era (confirmed ACM).
12. Fire door insulation of one door in the 1952 era (confirmed asbestos-containing).
13. Tarry damp-proofing at foundations throughout all eras (assumed ACM, and assumed to contain PCB's).
14. Interior tarry damp-proofing sealant at interior side of all exterior concrete walls and underside of the roof of the 2nd floor in the original 1952 era (confirmed asbestos-containing and confirmed to contain PCB's).
15. Built-Up roofing throughout all eras (confirmed in the 1952 era, assumed asbestos-containing in the 1984 and 1997 era).

16. Roof patch tars throughout all eras (confirmed asbestos-containing).
17. Sealants and patching tars of metal roofing (assumed asbestos-containing).
18. Pipe insulation in the 1952 era (confirmed asbestos-containing, most removed).
19. "Mag" and "Aircell" or other asbestos-containing insulation on active and abandoned direct-bury pipe insulation (assumed asbestos-containing).
20. Buried cold water piping, and roof drain and/or storm water piping, assumed to be asbestos-cement, "Transite" piping (assumed asbestos-containing).

The effects of the above asbestos-containing materials on the proposed renovation are discussed below.

"Popcorn Ceiling" Sprayed-On Acoustic Texture

An acoustic texture, commonly called a "Popcorn Ceiling" was sprayed on the concrete ceiling in Bathroom 170. Because it was applied by spray, there will be overspray from the "Popcorn Ceiling" on other building elements in the vicinity of the "Popcorn Ceiling". The "Popcorn Ceiling" was in good condition and is considered friable. The "Popcorn Ceiling" will typically become friable during disturbance or removal, and is RACM and is required to be removed prior to demolition.

Sprayed-On Acoustic Plaster Wall Coating

An acoustic plaster wall coating was sprayed on the top half of the northwest concrete wall of MPR 117. The material was covered with a gypsum board soffit. Because it was applied by spray, there will be overspray on other building elements in the vicinity of the wall coating. The acoustic plaster wall coating was in good condition and is considered friable. The material will be removed by this project and will remain friable during disturbance or removal, and is RACM and is required to be removed prior to demolition.

Joint Compound

Joint compound on gypsum board walls, soffits and ceilings throughout the 1952 era of the building was asbestos-containing. No asbestos has been detected in the gypsum board. Joint compound was in good condition and is not considered friable unless damaged. The joint compound will be removed by this project. Gypsum wall board with asbestos-containing joint compound may be left in place during building demolition, but the debris that includes the gypsum wall board are required to be packaged and disposed of at a landfill permitted to accept non-friable asbestos wastes.

Cement Asbestos Board

The walls of Fan Room 207 are covered with cement asbestos board. The board is in good condition and is not friable. The cement asbestos board materials will be partially removed by this project. The cement asbestos panels are in good condition and are not friable in their present condition but is considered RACM and is required to be removed prior to demolition.

Sheet Vinyl Flooring

Tan, chip pattern, sheet vinyl flooring and mastics in Room 144 and 144A were asbestos containing. The sheet vinyl's will be removed by this project. The sheet vinyls are in good condition and are not friable in their present condition but are RACM and is required to be removed prior to demolition.

Floor Tile and Mastic

Various colors of 9" x 9" vinyl floor tiles and black flooring mastic throughout the 1952 era contain asbestos and are covered in many areas with carpeting or a second layer of 12" x 12" vinyl composition tiles. The floor tiles and mastics were mostly in good condition with a few localized areas of damage. Typically, vinyl asbestos floor tiles would become friable due to the forces of demolition, and are typically removed prior to demolition. The asbestos-containing mastics may remain in place during demolition, if the mastics do not become friable from the forces of demolition. If the mastic is left in place, all debris (including the concrete flooring) are required to be packaged and disposed of at a landfill permitted to accept non-friable asbestos wastes. The tile and mastic was not currently friable, and will be removed by this project.

Door, Window and Penetration Sealants

The sealants at penetrations through the outer walls had an asbestos-containing sealant, including around door and window frames, as well as other penetrations in the 1952 era. The sealants are assumed to be not friable and in good condition, and are not quantified, as they will be removed with the remainder of the walls, windows or doors. The sealants and glazing compounds will be removed by this project.

Flange Gaskets and Valve Packing

Due to their age, gaskets and valve packing on mechanical equipment throughout the buildings, but mostly in mechanical and fan rooms are assumed to be asbestos-containing. These materials are difficult to sample without disassembly of equipment and consequently limited sampling was performed. These materials were in good condition but may become friable during removal for replacement. The gaskets and packings will be removed by this project.

Speaker/Clock Housing Coatings

Coatings on the interior of speaker and clock housings in classrooms and in speaker housings in hallways of the 1952 era contained chrysotile asbestos. This material was in good condition and was not friable and will be removed by this project.

Door Insulation

Metal door in the basement was insulated with asbestos-containing insulation. The metal door and the door to the electrical room are assumed to be of the same construction and therefore contain asbestos insulation. The doors will be removed by this project.

Exterior Foundation Wall Damp-proofing Coating

The foundation waterproofing of all eras is assumed to contain asbestos. The coatings are assumed to be not friable and in good condition. The tarry coatings will be removed along with the concrete by this project.

Interior Damp-proofing Coating

The black tarry coating at the interior side of exterior concrete walls and the second-floor ceiling of the 1952 era is asbestos-containing. The inside of the exterior walls and ceilings were also typically insulated with a cork insulation that was held in place by a hot-mop tar that did not contain asbestos. Removing the cork will likely also remove parts of the asbestos-containing damp proofing. The coatings are not friable and in good condition. The tarry coatings will be removed along with the concrete by this project. Refer to PCB discussion.

Roofing Material

Built-up roofs over the 1952 era flat roof section are assumed to contain asbestos. These materials are not friable and are generally in good condition and will be removed by this project. Roofing materials are typically not friable, and may remain in place during demolition, if the roofing does not become friable from the forces of demolition. If the roofing is left in place during demolition, all debris which include assumed asbestos-containing roofing materials are required to be packaged and disposed of at a landfill permitted to accept non-friable asbestos wastes.

Roofing Patching Tars and Sealants

Patching tars and sealants of all eras are assumed to be present at flashings, vents, and other equipment penetrating the roofing and contains asbestos. The roofing materials will be removed by this project. If the roofing is left in place during demolition, all debris which include assumed asbestos-containing roofing materials are required to be packaged and disposed of at a landfill permitted to accept non-friable asbestos wastes.

Metal Roofing Sealants and Patching Tars

There is a metal, snow displacement roof over part of Room 181, the Art Room along with other metal roofs at the entrance and stairs. Sealants at the metal roof seams, flashing, etc., and patching tars are assumed to contain asbestos. The roofing materials will be removed by this project. If the roofing is left in place

during demolition, all debris which include assumed asbestos-containing roofing materials are required to be packaged and disposed of at a landfill permitted to accept non-friable asbestos wastes.

Pipe Insulation

All visible piping inspected in the project areas were insulated with fiberglass insulation due to previous abatement projects or piping replacement projects, or newer construction. Steam, condensate, heating water supply and return, hot, cold, and hot water return domestic water piping and roof drain piping in the 1952 era of the school was previously identified to have asbestos-containing "Mag" and "Aircell" pipe insulation, and asbestos-containing "hard fitting" insulation at the valves, fittings, drain bowls, etc. Portions of the original 1952 piping was concealed above ceilings and walls in some areas, and underneath the classroom cabinets of the second floor. The heating and domestic water piping in the utilidors underneath the school has previously been "abated", but remnants of asbestos-containing insulation are assumed to be present at the pipe fittings, and where the piping penetrates the "ceiling" or walls of the utilidors. There are also original steam and condensate piping that extended beyond the utilidors and was called out to be direct-buried underneath the floor slab "in tile". Those heating system pipes are assumed to have asbestos-containing insulation inside of the "tile" enclosure. There were also seven kindergarten and first grade classrooms on the 1st floor which were originally fitted with loops of steam piping that was encased inside of the concrete floor slab. Those heating loops were shown on the "As-Built" drawings as not having any insulation, although ancillary piping above and below the floor are assumed to have asbestos-containing pipe insulation. As part of the pre-demolition removal of all RACM from the building, follow all piping runs into concealed spaces, and conduct demolition of concealing finishes and materials to inspect for, and remove all asbestos-containing pipe insulation. Refer to the original "As-Built" drawings included in the Contract Drawings, which show the original proposed locations of the piping systems. Note that the piping may have actually been installed in a different location than what was shown.

Abandoned Buried Pipe Insulation

The building was previously served with steam and condensate from the Base Steam distribution system, and the buried piping exterior to the building was abandoned in place, and the capped ends of the piping can be seen in the Basement mechanical room. That piping was typically direct-buried and has been found to contain asbestos at other locations on Base. The abandoned steam and condensate outside of the building is assumed to have asbestos-containing insulation and shall be removed and capped as shown on the Civil drawings.

Buried Asbestos-Cement Piping.

The building was previously served with cold water from the Base water distribution system, and the buried piping exterior to the building is assumed to be constructed with asbestos-cement or "Transite" piping and to also be insulated with asbestos-containing pipe insulation. The roof drain and/or storm water system piping is also assumed to be constructed with asbestos-cement or "Transite" piping. The cold water, roof drain and/or storm water piping outside of the building with asbestos-containing components shall be removed and capped as shown on the Civil drawings.

2. Asbestos in Dusts

The settled and concealed dusts were previously examined by an EPA Certified Building Inspector but no samples for asbestos in dusts were authorized for this project, but was sampled in the past. Based on their visual inspection and experience from similar buildings, the inspector determined that the typical settled and concealed dusts are not "asbestos debris" from an asbestos-containing building material (ACBM). Based on similar sampling from similar buildings, the inspector also determined that the dusts are unlikely to contain more than one percent (1%) asbestos by weight, and therefore are not an asbestos-containing material (ACM).

Dust Sampling for Asbestos

The following Table 2A lists the dust samples for asbestos taken in April 2002, and the results of the laboratory analysis using ASTM D5755. Dust sample field survey data sheets and laboratory reports are included as Appendix B. Refer to Appendix G for sample locations.

TABLE 2A

SAMPLE NO.	BUILDING AREA / LOCATION	RESULTS ASBESTOS St./cm² *
UJ4502-D01	CUV In Classroom 165	None Detected
UJ4502-D02	CUV, Fan Housing Classroom 223	None Detected
UJ4502-D03	Exhaust Duct from Classroom 228	None Detected
UJ4502-D04	Return Air Duct on North Side of IMC	22,200.0 Chrysotile & Actinolite
UJ4502-D05	Last Supply Duct at NW of IMC	14,800.0 Chrysotile
UJ4502-D06	RA Duct at NW of MPR	481,000.0 Chrysotile
UJ4502-D07	Fan Housing Supply Side	49,300.0 Chrysotile
UJ4502-D08	AHU-3; MPR Supply Downstream of Heat	185,000.0 Chrysotile
UJ4502-D09	RA & OA Mix Plenum Gym Unit	4,930.0 Chrysotile
UJ4502-D10	Gym Unit Supply at Fan	22,200.0 Chrysotile
UJ4502-D11	Art Room AHU RA Upstream of Filters	9,870.0 Chrysotile
UJ4502-D12	Art Room AHU Supply at Fan	59,200.0 Chrysotile

* The St./cm² results by ASTM D5755 and D5756 are not directly comparable due to differences in sample preparation. The D5756 results are primarily meant to determine the weight percentage. Refer to discussion in Part E below.

The following Table 2B lists the dust samples for asbestos taken in November 2004, and the results of the laboratory analysis using ASTM D5756. Dust sample field survey data sheets and laboratory reports are included as Appendix B. Refer to Appendix G for sample locations.

TABLE 2B

SAMPLE NUMBER	DESCRIPTION	LOCATION	RESULTS ASBESTOS St./cm² *	RESULTS PERCENTAGE ASBESTOS
UM1104-D1	Dust on metal, 10cm x 10cm	Room 118, on light fixture in NE corner of office.	34,000.0 Chrysotile	0.00077%
UM1104-D2	Dust on metal, 10cm x 10cm	Room 170, on light fixture on South end of room	31,000.0 Chrysotile	0.014%
UM1104-D3	Dust on metal, 10cm x 10cm	Room 207, on top of fresh air intake	180,000.0 Chrysotile	0.0017%

* The St./cm² results by ASTM D5755 and D5756 are not directly comparable due to differences in sample preparation. The D5756 results are primarily meant to determine the weight percentage. Refer to discussion in Part E below.

3. Lead-Containing Materials

Lead-Testing

EHS-Alaska tested paint and other materials throughout the affected areas of the building using a SciAps XRF lead paint analyzer. Previous lead testing in the building used a Heuresis Pb200i and NITON XLI-300 XRF lead paint analyzers. Lead in paints tested varied from a trace amount to 0.5019 mg/cm². Lead in other materials tested varied from a trace amount to 0.0719 mg/cm². Refer to the Lead Analyzer Test Results Table in Appendix F that identifies the surfaces tested, and the results. The Lead Test Locations are shown in the Drawings in Appendix G.

Paints

There were varying lead contents found in the paints, based on what surfaces they are on, with most surfaces containing little lead (but are still classified as lead-containing materials by OSHA). The highest levels of lead were found on structural members and miscellaneous steel, with lower levels on walls and other painted surfaces, and lowest levels on pre-finished materials.

Lead based paints (paint containing more than 1.0 mg/cm² of lead) were identified in the project on one wooden door frame in classroom 213 and at exterior concrete window stoops however, it is anticipated that other components which are hidden, concealed, or otherwise not tested may be painted with lead-based paint. Lead was detected at very low levels in most of the painted floor, wall and ceiling surfaces. XRF testing is not able to “prove” that “no” lead exists in the paint. Low levels of lead found by XRF testing does not mean that the paints are free of lead, the paints may contain lead. At least an initial exposure determination of potential worker exposures for all disturbance of lead-containing materials is required unless laboratory analysis shows that there is zero detectable lead in the materials being disturbed (which requires special analysis). However, these paints may not present a hazard to occupants or workers performing renovation or demolition if lead-safe work practices are followed.

Ceramic Wall Tile and Glazing

Raised concentrations of lead were found in the glazing of ceramic plumbing fixtures and tiles. The concentrations of lead in ceramic glazing compounds should not be compared to lead-based paint criteria, as the glazing is inherently less likely to cause lead to be present in dusts or on surfaces, where it can be ingested. Lead in ceramic tile glazing has been known to result in worker exposures above the OSHA permissible exposure limit for workers performing renovation or demolition, and lead-safe work practices should be implemented, including regulated areas and HEPA filtered exhausts to control the possible spread of lead dusts. All ceramic tiles and fixtures in the facility should be assumed to contain lead.

Metallic Lead in Batteries, Pipe Solder and Flashing

Metallic lead items identified in the building included lead soldering at the sheet metal roof flashings, lead solder at copper piping, and poured lead sealants at bell and spigot joints of waste and vent piping and lead acid batteries in emergency lights and other battery backup equipment. The metallic lead materials are to be removed prior to demolition, and should be recycled or disposed of as hazardous waste.

Lead Dusts

The settled and concealed dusts were examined but no samples for lead in dusts were authorized for this project. Based on their visual inspection and similar sampling from similar buildings, the inspector also determined that the dusts are likely to have measurable concentrations of lead in the dusts.

Portions of the dusts in the building have been previously sampled for lead content. The following Table 3A lists the lead dust samples taken in November 2004, and the results of the laboratory analysis. Lead Dust field survey data sheets and laboratory reports are included as Appendix C. Refer to Appendix G for sample locations.

TABLE 3A

<i>SAMPLE NUMBER</i>	<i>DESCRIPTION</i>	<i>LOCATION</i>	<i>RESULTS LEAD/SF µg/ft²</i>
UM1104-LD1	Dust on metal, 10cm x 10cm	Room 118, on light fixture in NE corner of office.	36.0 µg/ft ²
UM1104-LD2	Dust on metal, 10cm x 10cm	Room 170, on light fixture on South end of room	80.0 µg/ft ²
UM1104-LD3	Dust on metal, 10cm x 10cm	Room 207, on top of fresh air intake	170.0 µg/ft ²
UM1104-LD4	Field Blank	Field Blank	<10 µg/ft ²

4. PCB-Containing Materials

Light Ballasts

Older fluorescent lights typically have PCB-containing ballasts. PCB-containing ballasts in fluorescent lights were banned in 1978, but manufacturers were allowed to use up existing stocks, and lights may have been reused from other facilities. The survey included examination of what were considered to be representative light fixtures, but not all fixtures were able to be accessed. All lights shall be inspected during removal. Unless ballasts were marked "No PCBs," they must be assumed to contain PCBs and must be disposed of as a hazardous waste when removed for disposal. The fluorescent light fixtures will be removed prior to demolition.

Older HID lights may have PCB-containing ballasts. Due to height restrictions and sealed ballast enclosures, the HID fixtures were not able to be accessed. All HID lights shall be inspected during removal or relocation. If ballasts are not marked "No PCBs," we suggest contacting the manufacturer of the lights to determine if the ballasts contain PCB's, or assume that they contain PCB's and be disposed of as a hazardous waste. HID light fixtures with assumed PCB-containing ballasts will be removed prior to demolition.

PCB Bulk Products

Representative paint and sealant samples were collected from Ursa Major Elementary School.

The following Table 4A summarizes the PCB Bulk samples taken February 2025 by EHS-Alaska, Inc. Field Survey Data Sheets and Lab results are included in Appendix D. A drawing showing sample locations is provided in Appendix G.

TABLE 4A

SAMPLE NUMBER	MATERIAL	LOCATION	TOTAL PCB CONCENTRATION
UMES2506-PCB01	White, Green, and Pink Paint Layers, GWB	Office 102, 1952 Era, northwest wall. P-180F	19.5 ppm
UMES2506-PCB02	Off-white Paint, GWB	Library 141, 1984 Era, Southeast wall beneath windows. P-411T	1.2 ppm
UMES2506-PCB03	Dark Red Paint	Basement 35, 1952 Era, on concrete floor in front of stairs. P-213F	15 ppm
UMES2506-PCB04	Black Tarry Sprayed-on Damproofing. (Note: Contains Asbestos)	Mechanical 207, 1952 Era, southeast wall near corner. P-220F	100 ppm
UMES2506-PCB05	Hot Mop Tar (Note: May Contain Asbestos)	Blower Room 236, 1952 Era, southeast wall, on spray-on DP and concrete. P-242F	11 ppm
UMES2506-PCB06	Beige Frame Sealant	Generator Building Exterior, 2004 construction, east wall, from between ventilation slats metal frame and CMUs. P-288F	None Detected
UMES2506-PCB07	Black Rubber Window Frame Gasket	School Exterior, 2005 window replacement, Office 101's windows, from between metal window frame and glass. P-185T	None Detected
UMES2506-PCB08	Grey Window Frame Sealant	School Exterior, 2005 window replacement, Classroom 153's windows, between metal frame and concrete column. P-297F	5.6 ppm

SAMPLE NUMBER	MATERIAL	LOCATION	TOTAL PCB CONCENTRATION
UMES2506-PCB09	Tan, Green, and Yellow Paint Layers	School Exterior, 1952 Era, from middle of Classroom 153's windowsill. P-1197T	540 ppm
UMES2506-PCB10	Pliable White Door Seam Sealant	School Exterior, 1952 Era, outside Vestibule 1101, between metal door frame and concrete. P-1212T	None Detected
UMES2506-PCB11	White, Pink Paint Layers	School Exterior, 1997 Era, north wall of Gym 184 near eastern corner. P-301F	None Detected
UMES2506-PCB12	Dk. Grey Window Frame Sealant	School Exterior, 1997 Era, Kindergarten 130, left side, between window frame and concrete. P-1260T	None Detected
UMES2506-PCB13	White, Pink, Green, and Yellow Paint Layers	School Exterior, 1984 ERA, south corner of Library 141, off of extruding column where the finish is smooth. P-303F	None Detected
Total PCB's listed herein includes the sum of all congeners of PCB's. Refer to the laboratory reports for the concentrations of the various congeners of PCBs found in the samples.			

Two of the samples had PCB concentrations above 50 ppm which would be classified by the EPA as PCB Bulk Product Wastes. Five samples contained more than 1 ppm PCBs detected but had concentrations of PCB's that were less than 50 ppm. Six samples had no detectable concentrations of PCB's. Refer to Regulatory Constraints discussion below for more information.

Soil Sampling for PCB's

Limited soil samples adjacent to the building were collected from around Ursa Major Elementary School. As described above, the soil samples were taken for screening purposes, were typically taken within 3 feet of the building exterior, and were a composite of the upper layer of soil, typically beneath the upper grass or wood chip layer.

The following Table 4B summarizes the soil samples taken June 2025 by EHS-Alaska, Inc. Field Survey Data Sheets and Lab results are included in Appendix D. A drawing showing sample locations is provided in Appendix G.

TABLE 4B

SAMPLE NUMBER	MATERIAL	LOCATION	TOTAL PCB CONCENTRATION
UMES2506-PCB01	Soil	North side of the building at Room 111.	0.108 ppm
UMES2506-PCB02	Soil	Planter box north of the main entrance at Office 101.	0.0302 ppm
UMES2506-PCB03	Soil	West side of the building at Room 154.	0.0646 ppm
UMES2506-PCB04	Soil	West side of the building at Room 174.	0.0377 ppm
UMES2506-PCB05	Soil	South side of the building at Room 178.	0.0907 ppm
UMES2506-PCB06	Soil	South side of the gymnasium at Room 185.	None Detected
UMES2506-PCB07	Soil	East side of the building at Room 165.	0.210 ppm
UMES2506-PCB08	Soil	East side of the building at Room 157.	0.512 ppm
UMES2506-PCB09	Soil	East side of the building at Room 127.	0.0512 ppm
UMES2506-PCB10	Soil	North side of the building at Room 117 MPR.	None Detected

All of the PCB soil samples contained less than 1 part per million of PCB's but at detectable levels. EHS-Alaska recommends that Environmental Consultants who specialize in soil contamination be consulted to determine if additional sampling and/or characterization of the soils on site should be conducted.

5. Mercury-Containing Materials

Fluorescent Lamps

Fluorescent lamps use mercury to excite the phosphor crystals that coat the inside of the lamp. These lamps contain from 15 to 48 milligrams of mercury depending on their age and manufacturer. The Fluorescent light fixtures will be removed prior to the demolition.

High Intensity Discharge Lamps

High Intensity Discharge (HID) lamps use mercury and sodium vapors in the lamp, and also typically have lead-containing solders at the bases. These lamps contain varying amounts of mercury depending on their age and manufacturer. HID light fixtures will be removed prior to the demolition.

Rubber Flooring

3M Brand Tartan Track or Gym Flooring and other rubber floors installed during the 1970s up through the mid 1990's often contained a mercury catalyst. Some types of rubber flooring with mercury have been identified which were installed in the early 2000's. The rubber flooring was typically installed in gymnasiums, locker rooms, gym storage, restrooms and on tracks. The mercury content of this type of flooring varies, as does the amount of degradation that has occurred over time and therefore the extent to which mercury can be leached from the flooring. The rubber flooring on the 1997 Gymnasium was tested for mercury and found to contain 170 mg/kg of mercury when tested for Total Mercury using EPA method 7471B. According to industry data, mercury content below 1 mg/kg is an indication that mercury catalyst was not used on the rubber flooring. The flooring was re-tested using EPA Method 1311 using the Toxic Characteristic Leaching Procedure (TCLP) test to determine if the rubber flooring would be considered a hazardous waste for disposal.

The TLCP test result was 6.3 mg/l, which is higher than the EPA's 0.2 mg/l limit for the flooring to be considered non-hazardous. The rubber flooring in Ursa Major Elementary School must be treated as hazardous waste because it fails the RCRA Toxicity Characteristics Leaching Procedure (TCLP) test which limits mercury to 0.2 mg/L.

Disposal of mercury containing waste requires additional treatment if the total mercury present in the rubber flooring is equal to or greater than 260 mg/kg. If at or above 260 mg/kg of total mercury the waste must be incinerated by a special process to remove and capture the mercury before final disposal. The rubber flooring in Ursa Major Elementary School contained 170 mg/kg of mercury, and all flooring wastes shall be disposed of as hazardous wastes, but is not a "High Mercury" hazardous waste that would require incineration. Because there are no hazardous waste landfills in the state of Alaska, this means the waste must be shipped to the lower 48.

Rubber Flooring field survey data sheets and laboratory reports are included as Appendix E. Refer to Appendix G for sample locations. The following Table 5A lists the Rubber Flooring sample taken in February 2025, and the results of the laboratory analysis.

TABLE 5A – TOTAL MERCURY & TCLP SAMPLE SUMMARY

SAMPLE NUMBER	MATERIAL	LOCATION	MERCURY CONTENT **
UMES2502-M01 TCLP Extraction	Representative Rubber Flooring, light green & gray	Gym 184, east corner adjacent to office doorway. P224F	**TCLP Mercury, 6.3 mg/L
UMES2502-M01	Representative Rubber Flooring, light green & gray	Gym 184, east corner adjacent to office doorway. P224F	**Total Mercury, 170 mg/kg

****EPA limits:** TCLP Mercury - 0.2 mg/L. Waste materials containing above this level must be treated as hazardous waste. Total mercury content equal to or greater than 260 mg/kg are in the High Mercury Subcategory of hazardous waste and require special treatment prior to disposal.

All mercury-containing items being removed by this project are required to be disposed of as hazardous waste or recycled.

6. Other Hazardous Materials

Smoke Detectors

Several radioactive smoke detectors were found in the demolition area. Radioactive items removed by this project are required to be disposed of as hazardous waste or recycled.

Hydraulic Elevator

There was a Hydraulic Elevator in the Administration area, which is required to be removed prior to demolition. The hydraulic fluids shall be removed and properly disposed of prior to disposal of the metallic portions, or the entire unit may be reused or recycled by the contractor.

Household Chemicals

Common household chemicals, including quantities of cleaners, disinfectants, floor or furniture wax were present in the building. These loose containers were present in the janitors closets primarily and will be disposed of by the contractor. These chemicals may also be utilized or recycled by the contractor for other projects.

Soil Contamination

The scope of work for EHS-Alaska, Inc. did not include investigation of soils for petroleum or other contaminations.

Refrigerants

Refrigerators, freezers, ice machines and water coolers were identified in the building that may contain ozone depleting refrigerants. There was also an "Air Dryer" at the air compressor that uses ozone depleting refrigerants. Air conditioning units may also be present. Ozone depleting substances (ODS) are regulated by the EPA and must be removed by certified technicians prior to equipment disposal.

Heat Transfer Fluids

The existing heating and cooling system is assumed to contain heat transfer fluids, including glycol or other boiler treatment chemicals. Any heat transfer fluids removed from the heating system shall be recovered, tested and properly disposed of or recycled for other projects. The heating and cooling system is will be removed by the demolition.

E. REGULATORY CONSTRAINTS

1. Asbestos-Containing Materials

The Federal Occupational Safety and Health Administration (29 CFR 1926.1101) and the State of Alaska Department of Labor (8 AAC 61) have promulgated regulations requiring testing for airborne asbestos fibers; setting allowable exposure limits for workers potentially exposed to airborne asbestos fibers; establishing contamination controls, work practices, and medical surveillance; and setting worker certification and protection requirements. These regulations apply to all workplace activities involving asbestos-containing materials.

The EPA regulations, 40 CFR 61, Subpart M of the National Emission Standards for Hazardous Air Pollutants (NESHAP), established procedures for handling ACM during removal and disposal. The NESHAP regulations address three categories of ACM in a building being demolished:

1. Friable, or regulated ACM (RACM) which must be removed from a building before the building is demolished
2. Category I non-friable ACM (resilient flooring, asphalt roofing products, packing and gaskets)
3. Category II non-friable ACM (non-friable ACM other than Category I ACM).

If allowed by the disposal site, the EPA allows Category I and II non-friable ACM to remain in a building during demolition if: (1) Category I ACM is not in poor condition and is not friable and (2) the probability is low that Category II ACM will become crumbled, pulverized or reduced to powder during demolition. The condition of the ACM and method of demolition will generally determine if Category I and II non-friable ACM may be left in the building during demolition. This EPA standard also requires that no visible emissions be generated from the ACM during removal and transportation and does not allow intentional burning of any building containing ACM.

The EPA regulations require an owner (or the owner's contractor) to notify the EPA of asbestos removal operations and to establish responsibility for the removal, transportation, and disposal of asbestos-containing materials.

The disposal of asbestos waste is regulated by the EPA, the Alaska Department of Environmental Conservation, and the disposal site operator. Wastes being transported to the disposal site must be sealed in leak tight containers prior to disposal and must be accompanied by disposal permits and waste manifests.

2. Dusts with Asbestos

All of the dust samples taken at Ursa Major Elementary School through the years have contained less than 1 percent asbestos. The concentrations of asbestos structures per unit area of dust analyzed by ASTM D5756 are not directly comparable to the majority of dust sampling literature which use ASTM D5755 analysis due to differences in sample preparation. Both types of analysis include ultrasonic treatment to separate asbestos from interfering particulates. However, the D5756 method includes a much longer ultrasonication step that tends to break down the larger asbestos structures, such as bundles or groups of asbestos fibers into more simple, individual asbestos fibers to allow more accurate estimations of the weight of the fibers. That has a tendency to "create" multiple asbestos structures out of what was originally a single asbestos structure. Area concentrations for samples analyzed by ASTM D5756 for weight percentage may have a higher concentration than if the same sample was analyzed by ASTM D5755. This should not have any effect on the weight percentage results, as no asbestos structures are actually "created", but are just more finely divided. The structures per unit area results from ASTM D5756 analysis are given as a courtesy by the laboratory, and should be used as a general comparison of relative concentrations, and not compared to the ASTM D5755 analysis results or the indications of "background", "medium" or "high" concentrations as discussed below and in the published literature on the implications of asbestos in dusts. The differences between the two types of analysis will depend on the relative sizes of the asbestos structures present in the dusts. If the dust has mostly single fibers, there would not be much effect. If the dust has bundles, clusters or matrixes of asbestos present, the concentration of structures per unit area may be reported as much higher by ASTM D5756 analysis than if it was analyzed by ASTM D5755.

Concentrations of asbestos in dust are considered to be at "background" levels when the concentrations are between 1,000 to 10,000 St./cm² when analyzed by ASTM D5755. Background levels for a particular location will depend on many factors, including whether or not asbestos occurs naturally in soils in the area. Concentrations greater than approximately 100,000 St./cm² are considered to have a higher likelihood of causing an exposure to asbestos fibers when the settled dusts are disturbed. Concentrations between 10,000 and 100,000 St./cm² lie in a median range. In all cases, the possible airborne concentrations of asbestos will depend on the type of disturbance, the quantity of dust that is disturbed, and the volume of the area into which the dust is made airborne.

D5755-Area Concentration Samples

The asbestos in dust concentrations found in sampling at Ursa Major Elementary School ranged from None Detected to 481,000.0 St./cm² when analyzed by ASTM D5755. "High" concentrations were found in 4 samples from Ursa Major Elementary School. The highest concentration was found in a return air duct at the northwest side of the MPR. Eight of the fifteen ASTM D5755 samples contained what is considered "medium" concentrations of asbestos and three samples were reported as None Detected.

Likely sources of asbestos in dusts include natural occurrences of asbestos

The types of asbestos found included chrysotile and actinolite forms of asbestos. 11 samples contained only chrysotile. One sample contained chrysotile and actinolite. Because actinolite, anthophyllite, and tremolite have not been identified in bulk samples taken of materials within the school, those forms of asbestos may have come from natural occurrences of asbestos in an outside source, such as rock or ore deposits, which appear to be common in Alaska.

Because the type of disturbance, concentration of asbestos in the dusts, quantity of dust disturbed, cohesiveness of the dusts and room sizes will change, the airborne asbestos levels expected during the project will depend on the contractor's means and methods of conducting the work. The mere presence of asbestos in the dusts does not necessarily imply that a "hazard" exists which would require the use of specially trained workers to "abate" the "hazard". All dusts will likely be required to be removed from the areas where asbestos-containing materials are being removed (abatement areas) in order to achieve clearances. The dusts in the other areas are to be controlled so as to limit worker exposures and prevent contamination of occupied areas of the building.

There is no established correlation between settled or adhered dusts with measurable concentrations of asbestos and airborne concentrations. The definition in the OSHA regulations of asbestos-containing materials as those materials that contain 1 percent or more asbestos by weight, apply to cohesive materials and not to dusts. The OSHA regulations are essentially "performance based", if workers are exposed above the permissible exposure limits, then all of the requirements in the regulations become effective.

3. Lead-Containing Materials

The EPA Standard 40 CFR 745, Lead-Based Paint Poisoning Prevention in Certain Residential Structures, defines lead-based paint hazards and regulates lead based paint activities in target housing and child-occupied facilities. The requirements of this regulation include training certification, pre-work notifications, work practice standards and record keeping. Areas in facilities built before 1978 that are typically classified as child occupied facilities may include but are not limited to: residential homes, day care facilities, preschools, kindergarten classrooms, restrooms, multipurpose rooms, cafeterias, gyms, libraries and other areas routinely used by children under 6 years of age. New training requirements for Firms (Contractors) and Renovators (Workers) became effective on April 22, 2010, and the revised dust-lead clearance levels became effective on January 13, 2025. The building is not currently classified as a child occupied facility, therefore the requirements of 40 CFR 745 do not apply.

Federal OSHA (29 CFR 1926.62) and the State of Alaska (8 AAC Chapter 61) have promulgated regulations that apply to all construction work where employees may be exposed to lead. The disturbance of any surfaces painted with lead-containing paint requires lead-trained personnel, personnel protective procedures, and air monitoring until exposure levels can be determined. If initial monitoring verifies that the work practices being used are not exposing workers, monitoring and protection procedures may be relaxed. Experience has shown that some paints in most buildings will contain low concentrations of lead and disturbance of those paints are still regulated under the OSHA lead standard, 29 CFR 1926.62. Low levels, or "none detected" levels of lead found by XRF testing does not mean that the paints are free of lead, the paints may contain lead, and OSHA regulations apply during any disturbance of measurable amounts of lead present in paints.

Because the type of disturbance, quantity of lead dusts, cohesiveness of the dusts and room sizes will change, the airborne lead levels expected during the project will depend on the contractor's means and

methods of conducting the work. The mere presence of lead in the dusts does not necessarily imply that a “hazard” exists which would require the use of specially trained workers to “abate” the “hazard”. As a comparison, “clearance” lead dust concentrations established at the conclusion of a “lead abatement project” in child occupied facilities, are required to be $<5.0 \mu\text{g}/\text{ft}^2$ for floors, $<40.0 \mu\text{g}/\text{ft}^2$ for window sills, and $<100.0 \mu\text{g}/\text{ft}^2$ for window troughs, and $<40 \mu\text{g}/\text{ft}^2$ for porch floors. .

The dust sampled in the building contained from $<36.0 \mu\text{g}/\text{ft}^2$ to $170.0 \mu\text{g}/\text{ft}^2$, however, none of the samples were taken at the floors, window sills, or window troughs, but were taken in areas that were typically inaccessible, and are unlikely to be disturbed during normal occupancy. The highest concentration found was in Room 207 on top of a fresh air intake. No portions of Ursa Major Elementary School would be currently classified as a “Child Occupied Facility”.

There is no established correlation between settled or adhered lead dust concentrations and airborne concentrations. The OSHA regulations are essentially “performance based”, if workers are exposed above the permissible exposure limits, then all of the requirements in the regulations become effective.

The EPA requires that actual construction or demolition debris that contains lead or lead-containing paint or other heavy metals be tested using the TCLP test to determine if the waste must be treated as hazardous waste. All federal, state and local standards regulating lead and lead-containing wastes are required to be followed during the renovation or demolition of portions of this building. Lead-acid batteries and other batteries are classified by the EPA as Universal Wastes. The EPA encourages that all Universal Wastes be recycled in accordance with 40 CFR 273, or in the case of lead-acid batteries, in accordance with 40 CFR 266, subpart G.

If the TCLP tests done on the waste stream(s) that are produced by the contractor are found to contain more than 5.0 mg/liter or 5.0 ppm of lead, they are classified as hazardous wastes, then those waste stream(s) will have to be packaged for shipping and disposal in accordance with hazardous waste and transportation regulations. Because there are no hazardous waste landfills in Alaska, this report assumes that any hazardous waste disposal would take place in Seattle or elsewhere in the Pacific Northwest.

4. PCB-Containing Materials

The EPA has promulgated regulations (40 CFR Part 761) that cover the proper handling and disposal of PCB-containing materials. PCB-containing “Bulk Product” materials (defined by the EPA as Bulk Products that contain more than 50 ppm PCBs) were found by this survey in black tarry damproofing on the interior side of exterior concrete walls of the original 1952 build and the exterior paint of the original 1952 building. Five of the thirteen samples of paints and sealants in the building at Ursa Major Elementary School were found to contain low concentrations (more than 1 ppm, but less than 50 ppm) of PCBs that are not classified by the EPA as PCB containing materials at all. Those materials with low concentrations of PCBs included materials that were likely to have been manufactured after PCB’s were “banned” in 1979. Six of the thirteen samples had no detectable concentrations of PCB’s.

Materials containing PCB’s at any detectable concentrations are not allowed to be disposed of in Alaska Landfills under current Alaska Department of Conservation landfill permits, which exceeds the EPA regulations for disposal of PCB Bulk Products. The EPA regulates liquid PCBs differently from non-liquid materials, such as PCB Bulk Products.

Bulk product wastes that contain PCBs at 50 ppm or greater are regulated by the EPA, however, even at concentrations higher than 50 ppm, (such as found by this survey), PCB bulk products are allowed by the EPA to be disposed of at municipal or non municipal, non-hazardous waste landfill because the PCBs in bulk products are not likely to leach out of the solid material. The following citation of 40 CFR 761.62(b) illustrates this: *“Disposal in solid waste landfills. (1) Any person may dispose of the following PCB bulk product waste in a facility permitted, licensed, or registered by a State as a municipal or non-municipal non-hazardous waste landfill: (i) Plastics (such as plastic insulation from wire or cable; radio, television and computer casings; vehicle parts; or furniture laminates); preformed or molded rubber parts and*

components; applied dried paints, varnishes, waxes or other similar coatings or sealants; caulking; Galbestos; non-liquid building demolition debris; or non-liquid PCB bulk product waste from the shredding of automobiles or household appliances from which PCB small capacitors have been removed (shredder fluff). (ii) Other PCB bulk product waste, sampled in accordance with the protocols set out in subpart R of this part, that leaches PCBs at <10 µg/L of water measured using a procedure used to simulate leachate generation.”

On October 24, 2012, EPA issued a Memorandum on the proposed reinterpretation of the PCB bulk product waste definition noting that building materials or substrates that are *“coated or serviced with PCB Bulk Product Waste (e.g., caulk, paint, mastic, sealants) at the time of designation of disposal are to be managed as a PCB bulk product waste, even if the PCBs have migrated from the overlying bulk product waste into the substrate, provided there is no other source of PCB contamination on or in the substrate.”*

The EPA’s 2012 Memorandum included the requirement that the potentially contaminated substrate (such as concrete or bricks or wood) be identified as PCB bulk product waste, prior to the material being designated as wastes, otherwise those materials would be classified as PCB remediation wastes, and be required to be disposed of at an EPA permitted hazardous waste landfill. If PCBs have migrated out of the PCB bulk product into the soils, then any soils containing more than 1 ppm, those soils are considered PCB remediation wastes and are subject to the cleanup and disposal requirements of 40 CFR 761.61.

The Anchorage Regional Landfill Policy prohibits the disposal of PCB waste with detectable concentrations of PCB’s. State of Alaska regulation 18 AAC 60.025 prohibits the disposal of materials that contain a hazardous substance in concentrations that exceed the applicable soil cleanup levels in 18 AAC 75.341 (Table B1 or B2) in unlined landfills. This regulation is being applied to lead-based paint and PCB-containing building materials (PCB Bulk Products) in renovation or demolition projects by the Alaska Department of Environmental Conservation (ADEC). Although we believe this is outside of the intent of the regulation, there are currently no options for disposal of PCB Bulk Product waste with measurable concentrations of PCB’s in Alaska.

Since EPA regulations would allow disposal of PCB bulk products at essentially unlimited concentrations, it is recommended that additional coordination with local landfills be conducted to determine if at least the PCB bulk product wastes that contain less than 50 ppm be allowed to be disposed of at a local landfill, since they likely already have millions of tons of wastes that are likely classified as PCB bulk product wastes disposed of in their landfills.

Under 40 CFR 761.62 any person disposing of PCB bulk product waste in a waste management facility that does not have a commercial PCB storage or disposal approval must provide written notice to the facility a minimum of 15 days in advance of the first shipment. Content of the required notice is specified in 40 CFR 761.62.

Screening sampling of the soils surrounding the building was conducted and eight of the ten samples had detectable concentrations of PCB’s, but all 8 had concentrations that were less than 1 part per million. EHS-Alaska recommends that an Environmental Consultant who specializes in soil contamination review the soil sampling and help determine if additional sampling and/or site characterization should be conducted.

Workers who remove or handle PCB-containing or PCB-contaminated materials or who transport or dispose of PCB wastes must be trained and certified in hazardous waste operations and emergency response (HAZWOPER) as required by 29 CFR 1910.120 and the State of Alaska Department of Labor (8 AAC 61). The Department of Transportation under 49 CFR Parts 100-199 regulates the marking, packaging, handling and transportation of hazardous materials. All federal, state and local standards regulating PCBs and PCB waste must be followed during this project.

5. Mercury-Containing Materials

Thermostats and mercury-containing lamps are classified by the EPA as Universal Wastes. The EPA encourages that all Universal Wastes be recycled in accordance with 40 CFR 273. Mercury and mercury-containing products are considered hazardous waste if TCLP testing of the waste for mercury confirms the mercury content to be greater than the EPA criteria of 0.2 mg/l.

The rubber flooring on the gym floor was tested for mercury and found to contain 170 mg/kg of mercury. A Toxicity Characteristic Leaching Procedure (TCLP) test of the flooring material found 6.3 mg/l of mercury, which means that the mercury flooring wastes must be disposed of as hazardous waste.

According to the EPA RCRA land disposal restrictions (LDR), which prohibit land disposal of hazardous wastes and contaminated soils that contain mercury unless the waste or soil is treated to meet specific standards or stringent criteria associated with the regulatory variances that are associated with the LDRs standards. EPA has established different sets of LDR standards for mercury-containing hazardous wastes versus mercury contaminated soils. The LDR standards for wastes are based on the physical form of the waste that requires treatment and the total mercury content. The LDRs categorize mercury wastes as low mercury wastes, high mercury wastes, or elemental mercury wastes. The results of the lab analysis confirm that the Ursa Major gym floor is classified as low mercury waste, but is still classified as a hazardous waste.

6. Other Hazardous Materials

Refrigerants

Refrigerators, freezers, ice machines, and water coolers were present in the kitchen area that are scheduled for removal. "Air Dryer" systems were present in the basement area that are scheduled for removal. Typically, refrigeration systems with ODS shall be maintained in order to prevent discharge of ODS. Systems that are to be removed, or dismantled shall have refrigerants containing ODS recovered and disposed of or recycled in accordance with 40 CFR 82.

Chemical Hazards

The EPA has promulgated regulations (40 CFR Parts 260 to 299 amongst others) that cover the proper handling and disposal of waste chemicals, including listed wastes, which are ignitable, corrosive, reactive, toxic, or an acute hazardous waste or wastes that exhibit the characteristics of toxicity. All construction workers who are required to remove or handle chemical hazards or to transport or dispose of chemical wastes shall be trained and certified as required by the U.S. Department of Labor (29 CFR 1910.120) and the State of Alaska Department of Labor (8 AAC 61). Transportation of chemical hazards are regulated by Department of Transportation regulations under 49 CFR Parts 171 to 178 amongst others.

Waste heat transfer fluids (such as used heating system glycol or other circulating heating fluids) are a potentially hazardous waste and are required to be TCLP tested prior to disposal to determine if the fluids are classified as hazardous or non-hazardous waste per the EPA's RCRA regulations governing hazardous wastes. According to a study performed by the University of Northern Iowa, standard TCLP analysis using ICP SW 6010 testing procedures commonly report levels of Arsenic and Selenium over regulatory thresholds due to interferences in the matrix. That report concluded that additional analysis should be performed to refute the presence of Arsenic or Selenium over the regulatory levels by either mass spectrometry using method SW 6020, or by graphite furnace using method SW 7060. Some heat transfer fluids may also contain potentially hazardous additives that modify the properties of the fluids for use in a particular system. It is recommended that the contractor consult with the persons responsible for maintaining the system to determine if any additives that may be potentially hazardous were used in the system to further determine disposal requirements.

Radioactive Materials

Smoke detectors were present in the project area that may contain a radioactive material. If the detectors are of the ionization type they typically contain a small amount of Americium. When removed prior to demolition, the detectors should be returned to the owner for reuse or returned to the manufacturer for disposal or recycling. There are no licensed disposal facilities for radioactive wastes in Alaska.

F. RECOMMENDATIONS**1. Asbestos-Containing Materials**

The asbestos-containing materials identified in the building are typically in intact condition and are classified as both friable and non-friable ACM. All asbestos-containing materials that will be disturbed by the demolition are required to be removed by trained asbestos workers. Refer to Section 02 82 33 Removal and Disposal of Asbestos Containing Materials.

2. Dusts with Asbestos

Dusts with measurable concentrations of asbestos are assumed to be present, but are not classified as asbestos-containing materials, or as debris from asbestos-containing materials. Workers disturbing dusts are required to have hazard communication training in accordance with OSHA regulations, but are not required to receive 40 hours of training, which is required for asbestos workers. The contractor will need to choose means and methods to control worker exposures to airborne contaminants. At least an initial exposure assessment or data from previous air monitoring is needed to show that worker exposures are maintained below the OSHA permissible exposure limits (PELs). Refer to Section 01 35 45 Airborne Contaminant Control.

3. Lead-Containing Materials

Federal OSHA (29 CFR 1926.62) and the State of Alaska (8 AAC Chapter 61) have promulgated regulations that apply to all construction work where employees may be exposed to lead, including disturbance of paints with low concentrations of lead.

Worker exposure to lead may be able to be controlled below the OSHA permissible exposure limit if proper engineering controls and procedures are used during renovation. Lead is a potentially hazardous waste and the EPA requires that all wastes that contains lead be tested to determine if they must be treated as hazardous waste. A TCLP test of the waste stream(s) produced by the Contractor's means and methods are required to be performed to determine if those wastes will be classified as hazardous or non-hazardous. Refer to Section 01 35 45 Airborne Contaminant Control and Section 02 83 33 Removal and Disposal of Materials Containing Lead.

4. PCB-Containing Materials

If any PCB-containing ballasts are discovered, and they are removed or replaced, they will need to be removed, handled, packaged and disposed of in accordance with all regulations. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

As stated above, PCB Bulk Products containing more than 50 ppm have been identified at 1 sample of damp proofing and 1 sample of exterior paint at Ursa Major Elementary School, and paints and sealants with concentrations of PCBs that are less than 50 ppm were found in all but 6 of the rest of the 13 samples taken. It is recommended that additional coordination and negotiation be conducted with local landfill operators to encourage them to allow the disposal of at least the materials that contain less than 50 ppm. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

5. Mercury-Containing Materials

Mercury-containing materials scheduled for removal or replacement will need to be removed, handled, packaged and disposed of in accordance with all regulations. If mercury-containing lamps and thermostats are handled and disposed of in accordance with the Universal Waste Regulations, no TCLP test is required. If the Contractor chooses to perform a TCLP test of fluorescent lamps, the test shall be conducted in accordance with the requirements of ANSI/NEMA Standard Procedure for Fluorescent Lamp Sample

Preparation and Toxicity Characteristic Leaching Procedure, C78.LL 1256-2003 or latest version. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

6. Other Hazardous Materials

Radioactive materials scheduled for removal or replacement will need to be removed, handled, packaged and disposed of in accordance with all regulations. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

Refrigeration units with ODS scheduled for removal will need to be removed, handled, packaged and disposed of in accordance with all regulations. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

The hydraulic elevator and all fluids shall be removed and properly disposed of in accordance with all regulations and the requirements of the disposal site. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

The common household chemicals that are the responsibility of the contractor shall be properly disposed of in accordance with all regulations and the requirements of the disposal site. These chemicals may alternatively be utilized or recycled by the contractor. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

Heat transfer fluids will need to be removed, handled, packaged and disposed of in accordance with all regulations. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

G. LIMITATIONS

The conclusions and recommendations contained in this report are based upon professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted environmental consulting and engineering standards and practices and are subject to the following inherent limitations:

1. Accuracy of Information

The laboratory reports utilized in this assessment were provided by the accredited laboratories cited in this report. Although the conclusions, opinions, and recommendations are based in part, on such information, our services did not include the verification of accuracy or authenticity of such reports. Should such information provided be found to be inaccurate or unreliable, EHS-Alaska, Inc. reserves the right to amend or revise its conclusions, opinions, and/or recommendations.

2. Site Conditions

This survey is not intended to be utilized as the sole design document for abatement. This survey was conducted while the site was occupied. All inspections were performed with furniture, equipment and/or stored items in place. The scope of work for this survey did not include identification of all potentially hazardous materials that may be present at this site, and was limited to the scope of work agreed upon with our client. Although a concerted effort was made to identify those common hazardous materials likely to be affected by this project, some hazardous materials may have been hidden by furniture, equipment or stored items and may not have been identified. The survey investigated representative materials and items, such as lights and mechanical components. Variations may occur between materials and items that appear to be the same, but are actually of different construction or materials. Other asbestos-containing or potentially hazardous materials may be present in the facilities that were concealed by structural members, walls, ceilings or floor coverings, or in materials where testing was not conducted.

3. Changing Regulatory Constraints

The regulations concerning hazardous materials are constantly changing, including the interpretations of the regulations by the local and national regulating agencies. Should the regulations or their interpretation be changed from our current understanding, EHS-Alaska, Inc. reserves the right to amend or revise its conclusions, opinions, and/or recommendations.

APPENDIX A

Asbestos Bulk Sample Field Survey Data Sheets and Laboratory Reports


EHS ALASKA
INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577

(907) 694-1383 • (907) 694-1382 fax

e-mail • ehslabs@ehs-alaska.com

PROJECT NO: 8193-03	PROJECT NAME: Ursa Major Demo & Replacement	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 04/16/2025
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CHAIN OF CUSTODY RECORD							
ANALYSIS REQUESTED:	☒ PLM BULK ☐ LEAD DUST ☐ TEM MICROVAC DUST (ASTM 5756)	☐ PLM DUST ☐ LEAD TCLP ☐ TEM BULK ☐ LEAD PPM	TYPE:	TURNAROUND:	DISPOSAL:	QUANTITY	
			☒ ASBESTOS ☐ LEAD	RUSH	NORMAL	3	

COLLECTED BY (signature) Travis W. Hubbard PRINTED NAME 00006140 / 0-935 CERT# / AHERA# Hand Deliver SHIPPING METHOD John Lamont COURIER (signature) DATE/TIME 04/17/2025	Alaska Asbestos Lab SELECTED LABORATORY SAMPLES ACCEPTED BY 4-17-25 DATE/TIME ANALYST'S SIGNATURE 4-17-25 DATE	SPECIAL INSTRUCTIONS / COMMENTS: LAB: RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA, INC. See sample location drawing for more detailed explanation of exact locations. No asbestos
--	---	--

FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION (COLOR, MATERIAL, TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
UMES250416-A01	Black, tarry, pliable, speaker box acoustic mastic	Classroom 130, inside metal speaker box housing located at northeast side of the classroom. P10T	None Detected
UMES250416-A02	Troweled on brittle black wall mastic and tan rigid wall mastic	Room 180, northwest side of room adjacent to metal door frame. Between painted plywood and gypsum wallboard. P23T	None Detected Both layers
UMES250416-A03	Off-white plaster	Corridor at Room 180, beneath carpet wall covering and gypsum wallboard on concrete. P31	None Detected
END	END	END	

Alaska Asbestos Laboratory

Bulk Asbestos Analysis by PLM

3633 Parsons Avenue Anchorage, Alaska 99508

Client: EHS Alaska, Inc.

Client Project #: 8193-03

AAL Project #: 25-0427

11901 Business Blvd. Suite 208

Collection Date: 04/16/25

Report #: B25-0427

Eagle River, AK 99577

Collected By: Client

Report Date: 04/17/25

Project Name/Location: Ursa Major Demo & Replacement

Date Received: 04/17/25

Date Analyzed: 04/17/25

Sample Count: 3

Report By: J. Hicklin

Received By: J. Hicklin

Analysis By: J. Hicklin

Layer Count: 4

TAT: Rush

Client ID #	AAL ID #	Location: Classroom 130, Inside Metal Speaker Box-Northeast Side of Classroom				Layer 1 of 1	
UMES250416-A01	B25-0603	Non-Asbestos Components				Asbestos	
Material	Color	Homogenous	Misc. Non-Fibrous	%	Non-Asbestos Fibrous	%	Type
Mastic	Black	Yes	Total Non-Fibrous	99.90	Cellulose	0.10	Non-Detect
Comment: Black, Tarry, Pliable, Speaker Box Acoustic Mastic					Total Non-Asbestos Fibrous	0.10	Total Asbestos Non-Detect

Client ID #	AAL ID #	Location: Room 180, NW Side of Room Adjacent to Metal Door Frame				Layer 1 of 2	
UMES250416-A02	B25-0604A	Non-Asbestos Components				Asbestos	
Material	Color	Homogenous	Misc. Non-Fibrous	%	Non-Asbestos Fibrous	%	Type
Mastic	Black	Yes	Total Non-Fibrous	99.90	Cellulose	0.10	Non-Detect
Comment: Troweled-on Brittle, Black Wall Mastic and Tan Rigid Wall Mastic					Total Non-Asbestos Fibrous	0.10	Total Asbestos Non-Detect

Client ID #	AAL ID #	Location: Room 180, NW Side of Room Adjacent to Metal Door Frame				Layer 2 of 2	
UMES250416-A02	B25-0604B	Non-Asbestos Components				Asbestos	
Material	Color	Homogenous	Misc. Non-Fibrous	%	Non-Asbestos Fibrous	%	Type
Mastic	Tan	Yes	Total Non-Fibrous	98.00	Cellulose	2.00	Non-Detect
Comment:					Total Non-Asbestos Fibrous	2.00	Total Asbestos Non-Detect

Client ID #	AAL ID #	Location: Corridor at Room 180, Beneath Carpet Wall Covering and GWB on Concrete				Layer 1 of 1	
UMES250416-A03	B25-0605	Non-Asbestos Components				Asbestos	
Material	Color	Homogenous	Misc. Non-Fibrous	%	Non-Asbestos Fibrous	%	Type
Plaster	Off-White	Yes	Total Non-Fibrous	96.00	Cellulose	4.00	Non-Detect
Comment: Off-White Plaster					Total Non-Asbestos Fibrous	4.00	Total Asbestos Non-Detect

Please Note:

1. All quantitation of material in this report is based on a Calibrated Visual Estimate and not weight, unless otherwise noted. Calibrated Visual Estimate's are an accepted method of quantitation by the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos analysis by PLM.
2. Methods authorized by NVLAP do not include analysis of materials where the asbestos content is not consistently distributed throughout the material. Examples would include: soil, debris, vermiculite insulation, etc. However, under some circumstances, such as a small amount of material present, further sample reduction/homogenization is not practical and PLM can be appropriate. AAL will work with clients to determine the best analytical methods for the sample. Transmission Electron Microscopy (TEM) is also an available analytical option.

Methods: EPA 600/R-93/116 and EPA-40 CFR Appendix E to Subpart E of Part 763. AAL will use either method as directed by the client and/or as indicated by the sample material.

Reporting Limit: Less than 1% asbestos content by Calibrated Visual Estimate using PLM

Regulatory Limit: Greater than 1% asbestos content per the EPA

This analytical report relates only to the samples analyzed (as delivered). This report may not be reproduced, except in full, without written approval by Alaska Asbestos Laboratory (AAL). AAL makes no warranty (either direct or implied) as to the accuracy or content of any materials or information submitted by the client in preparing and presenting analytical results. The interpretation and regulatory compliance in regards to any analytical results are the sole responsibility of the client. Any information reported, in addition to analytical findings, is for informational purposes only. AAL does not provide any consultation for remediation of regulated materials. Unless otherwise noted, all samples were received in acceptable condition and suitable for analysis. The EPA recommends all non-friable organically bound materials (NOB), such as vinyl floor tiles, found not to contain asbestos by PLM analysis, be further analyzed by Transmission Electron Microscopy (TEM).

Alaska Asbestos Laboratory

Bulk Asbestos Analysis by PLM

3633 Parsons Avenue Anchorage, Alaska 99508

AAL Project #: 25-0427

Report #: B25-0427

Client Project #: 8193-03

Report Date: 04/27/25

Information provided by the client may include, but is not limited to: client ID's (sample numbers), sample locations, sample descriptions (listed as material on report), collection/sampling information sheets including location(s)/drawings/maps. AAL assumes no liability for any missing or non-submitted information and, at its sole discretion, reserves the right to supplement or add industry standard designations or other information to the analytical report.



Lab Code: 600340-0

Approved By:

Joel Hicklin

Joel Hicklin, Laboratory Manager

Date: 04/27/2025


EHS ALASKA
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PROJECT NO: 8193	PROJECT NAME: Ursa Major Demo & Replacement	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 02/13-19/25
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CHAIN OF CUSTODY RECORD							
ANALYSIS REQUESTED:	☒ PLM BULK	☐ PLM DUST	☐ TEM BULK	TYPE:	TURNAROUND:	DISPOSAL:	QUANTITY
	☐ LEAD DUST	☐ LEAD TCLP	☐ LEAD PPM	☒ ASBESTOS	5 DAYS	NORMAL	70
	☐ TEM MICROVAC DUST (ASTM 5756)			☐ LEAD			

COLLECTED BY (signature): <i>Travis W. Hubbard & Fisher G. Gandel</i> PRINTED NAME: Travis W. Hubbard & Fisher G. Gandel 00006140 / 0-935 & 20241023 / T-31317-45276 CERT# AHERA# FedEx SHIPPING METHOD 7722 3969 4688 COURIER (signature): <i>[Signature]</i> DATE/TIME: 02/24/25 11:00 AM	Eurofins BET SELECTED LABORATORY SAMPLES ACCEPTED BY DATE/TIME ANALYST'S SIGNATURE DATE	SPECIAL INSTRUCTIONS / COMMENTS: LAB: RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA, INC. See sample location drawing for more detailed explanation of exact locations.
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FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO REF)	RESULTS FOR EHS-ALASKA USE ONLY
UMES2502-A01	Light Brown Wainscot Mastic	North corner of front entrance vestibule, beneath white raised 2" square pattern plastic wainscot. P-73T	None Detected
UMES2502-A02	FT-4; 9x9" Dark Maroon Floor Tile, Black FT Mastic, Yellow Carpet Mastic	Office 101, near wall, left of doorway to Room 108, where dividing wall was previously removed. P-88T	FT-6% Chrysotile YM-None Detected SM-None Detected
UMES2502-A03	FT-1; 12x12" White Floor Tile w/ Monodirectional Grey, Lt. Grey, and Lt. Pink Smears, Yellow FT Mastic, Off-white Leveling Compound	Office 101, near wall, left of doorway to Room 108, where dividing wall was previously removed. P-89T	All 3 Layers None Detected
UMES2502-A04	SV-1; Lt. Blue/Green Sheet Vinyl w/ White & Dk. Green Specks, Yellow Mastic, SV-2; Tan Sheet Vinyl w/ White Streaks, Black Mastic	Office Bathroom 107, South Corner, P-96T	All 4 Layers None Detected
UMES2502-A05	SV-3; Off-white Sheet Vinyl w/ Small Red & Black Specks, Tan Mastic	Kitchen 115, a few feet west of the double door entrance. P-178T	Both Layers None Detected
UMES2502-A06	SV-4; White Sheet Vinyl w/ Blue & Pink & Brown Pebble Pattern, Dk. Yellow Mastic	Kitchen Office 116, adjacent to the doorway, P-173T	Both Layers None Detected
UMES2502-A07	Acoustic Plaster Wall Coating	MPR 117, on top half of northwest concrete wall, within GWR soffit. Right of kitchen doors. P-210T	2% Chrysotile


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PROJECT NO:	PROJECT NAME:	FACILITY:	COLLECTION DATE:
8193	Ursa Major Demo & Replacement	Ursa Major Elementary School	02/13-19/25
FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FINISH)	LOCATION COMMENTS (INCLUDING PHOTO-REF)	RESULTS FOR EHS-ALASKA (SEE ONLY)
UMES2502-A08	Acoustic Plaster Wall Coating	MPR 117, on top half of northwest concrete wall, within GWB soffit. At access panel. P-214T	20% Chrysotile
UMES2502-A09	CB-3; 6" Lt. Lavender Cove Base, Clear CB Mastic	Stage 121, from corner left of southeast double doors. P-237T	Both Layers None Detected
UMES2502-A10	Joint Compound ('95 Era)	Stage 121, from corner left of southeast double doors, behind cove base. P-237T	None Detected
UMES2502-A11	Off-white Carpet Mastic (CPI-3; Black Woven Short-shag)	Stage 121, from corner left of southeast double doors. P-237T	None Detected
UMES2502-A12	FT-1; 12x12" White Floor Tile w/ Monodirectional Grey, Lt. Grey, and Lt. Pink Smears, Yellow Mastic	Stage Storage 123, from right of doorway. P-242T	Both Layers None Detected
UMES2502-A13	Cream Stair Riser Mastic	Stage 121, northwest stairway, beneath riser. P-244T	None Detected
UMES2502-A14	Off-white/Clear Stair Tread Mastic	Stage 121, northwest stairway, beneath tread. P-244T	Both Layers None Detected
UMES2502-A15	WT-1; Tan Perlite Wall Texture	Corridor 1002, west wall, where corner of bathroom extrudes. P-246T	None Detected
UMES2502-A16	Red & Yellow Nose Trim Mastics	Stage 121, at edge of stage on east side, beneath trim. P-247T	Both Layers None Detected
UMES2502-A17	Yellow Carpet Mastic (CPT-3; Black Woven Short-shag)	Corridor 1003, left of door to Classroom 130. P-266T	None Detected
UMES2502-A18	Joint Compound, GWB ('95 Era)	Classroom 130, southern corner under CB, left of door to exterior. P-267T	Both Layers None Detected
UMES2502-A19	FT-9; 12x12" Non-skid Grey Floor Tile w/ Black Specks and Small 1/2" Square Pattern, Yellow Mastic	Classroom 130, from tiled area in front of exterior door. P-269T	Both Layers None Detected
UMES2502-A20	LCT-3; 2x4' Lay-in Ceiling Tile w/ Random 1/8" Pinholes & Straight Edges	Classroom 130, from ceiling a few feet left of door to hallway. P-272	None Detected
UMES2502-A21	Grey Sink Undercoating	Classroom 127, from sink on southeast wall. P-307T and P-312T	None Detected


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PROJECT NO:	PROJECT NAME:	FACILITY:	COLLECTION DATE:
8193	Ursa Major Demo & Replacement	Ursa Major Elementary School	02/13-19/25
FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION (COLOR, MATERIAL, TYPE, LAYERS, FRIABILITY)	LOCATION COMMENTS (INCLUDING PHOTO AREA)	RESULTS FOR EHS-ALASKA USE ONLY
UMES2502-A22	SV-5: Tan Sheet Vinyl w/ Grey, White, and Orange Specks, Yellow Mastic	Bathroom 127A, right of doorway, P-314T	Both Layers None Detected
UMES2502-A23	Tan Wall Panel Mastic	Bathroom 130A, from northwest wall beneath white raised 2" square pattern paneling, P-318T	None Detected
UMES2502-A24	Tan Spray-on Fireproofing (SOFP)	Library 141, above ceiling near southeast wall, P-326T	None Detected
UMES2502-A25	Tan Spray-on Fireproofing (SOFP)	Library 141, above ceiling just northwest of south corner, P-328T	None Detected
UMES2502-A26	Tan Spray-on Fireproofing (SOFP)	Library 141, above ceiling at midpoint between central column and southwest wall, where SOFP begins, P-331T	None Detected
UMES2502-A27	CB-4; 4" Lt. Brown Cove Base, Black CB Mastic	Library 141, from column at midpoint of southwest wall, P-339T	Both Layers None Detected
UMES2502-A28	WT-2; White Orange Peel Wall Texture	Library 141, from column at midpoint of southwest wall, P-340T	None Detected
UMES2502-A29	Joint Compound, GWB ('82 Era)	Library 141, from left corner of southwest column and wall, P-342T	Both Layers None Detected
UMES2502-A30	Orange & Black Carpet Mastics (CPT-4)	Library 141, right of southwest column, from floor that was '52 era, P-384T	None Detected
UMES2502-A31	Yellow Wall Carpet Mastic	Library 141, from southeast wall column, under wall carpet, P-388T	None Detected
UMES2502-A32	Yellow Carpet Mastic (CPT-4)	Library 141, left of southeast wall column, from floor that was '82 era, P-389T	None Detected
UMES2502-A33	Yellow Carpet Mastic (CPT-4)	Library Room 142, near southeast wall, from floor that was '52 era, P-395T	None Detected
UMES2502-A34	Joint Compound ('82 Era)	Library 141, from northwest wall above doorway and lay-in ceiling, P-404T	None Detected
UMES2502-A35	SV-6; Sheet Vinyl w/ Brown & Tan Pebble Pattern, Black Mastic, Tan Mastic	Library Room 144, in front of doorway, P-406T	200% Crysotile



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PROJECT NO	PROJECT NAME:	FACILITY:	COLLECTION DATE:
8193	Ursa Major Demo & Replacement	Ursa Major Elementary School	02/13-19/25
FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION (COMMENTS (INCLUDING PHOTO NO.))	RESULTS FOR EHS-ALASKA USE ONLY
UMES2502-A36	WT-2; White Orange Peel Wall Texture	Library 141, from northwest wall, a few feet right of doorway. P-408T	None Detected
UMES2502-A37	Ceramic FT Grout	Restroom 137, just past entrance vestibule. P-433T	None Detected
UMES2502-A38	SV-4; White Sheet Vinyl w. Blue & Pink & Brown Pebble Pattern	Classroom 151, at threshold to hallway. P-500T	Both Layers None Detected
UMES2502-A39	Tan Utilidor Insulation Fiber Board, Black Hot Mop Tar	Basement 38, at west utilidor entrance. P-565T	Both Layers None Detected
UMES2502-A40	Olive Gasket	Basement 35, north corner, at utilidor entrance. P-568T	Both Layers None Detected
UMES2502-A41	Wall Plaster, Skim Coat	Classroom 213, northeast wall. P-250F	Both Layers None Detected
UMES2502-A42	Ceiling Plaster, Skim Coat	Corridor 1200, above ceiling, where era changes from '52 to '95, near left double doors. P-1019T	Both Layers None Detected
UMES2502-A43	CB-2; 6" Black Rubber Cove Base, Tan Mastic	Corridor 1200, across from left edge of double doors, at column. P-1020T	Both Layers None Detected
UMES2502-A44	Yellow Carpet Mastic (CPT-3; Black Woven Short-shag)	Corridor 1200, across from left edge of double doors, beneath column. P-1020T	None Detected
UMES2502-A45	White Duct Seam Sealant Tape	Gym Fan Room 286, from major duct near ladder. P-271F	None Detected
UMES2502-A46	Joint Compound, GWB ('95 Era)	Gym Office 188, west corner. P-1036T	Both Layers None Detected
UMES2502-A47	FT-1; 12x12" White Floor Tile w/ Monodirectional Grey, Lt. Grey, and Lt. Pink Smears, Yellow Mastic	Gym Office 188, west corner. P-1037T	Both Layers None Detected
UMES2502-A48	Brown Wall Panel Mastic	Gym 184, from northeast wall near doors, behind fiberglass-reinforced paneling. P-1051T	None Detected
UMES2502-A49	CB-5; 4" Gray Cove Base, Tan Mastic	Generator Room, south wall. P-277F	Both Layers None Detected

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PROJECT NO: 8193	PROJECT NAME: Ursa Major Demo & Replacement	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 02/13-19/25
FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO.	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION COMMENTS (INCLUDING PHOTO REF)	RESULTS FOR EHS-ALASKA USE ONLY
UMES2502-A50	Brick Red Firestop	Generator Room, northeast corner, high up at wall penetration for piping. P-279F	None Detected
UMES2502-A51	Off-white Pliable Seam Sealant	Generator Room, at edge of east shutter doors. P-1135T	None Detected
UMES2502-A52	Joint Compound (~'04 Era)	Generator Room, northeast corner, high up beneath wall penetration for piping. P-280F	None Detected
UMES2502-A53	Off-White Duct Mastic	Generator Room, adhering fiberglass insulation to metal duct. P-1147T	None Detected
UMES2502-A54	Joint Compound (~'04 Era)	Boiler Room, southwest corner. P-285F	None Detected
UMES2502-A55	Tan Yellow Penetration Sealant	Boiler Room, southeast corner, high up at penetration for piping. P-1147T	None Detected
UMES2502-A56	Joint Compound (~'04 Era)	Boiler Room, west wall, above sink. P-288T	None Detected
UMES2502-A57	Mint Green Gasket	Boiler Room, on west (back) side of boiler #1. P-1151T	None Detected
UMES2502-A58	White/Yellow Rope Gasket	Boiler room, on west (back) side of boiler #2. P-1160T	None Detected
UMES2502-A59	Mint Green Gasket	Boiler Room, from piping to the right of boiler #3, close to sink. P-291T	None Detected
UMES2502-A60	Black Flange Gasket	Boiler Room Exterior, left of the double doors at the exterior vertical piping. P-1164T	None Detected
UMES2502-A61	Tan Pliable Door Frame Sealant	Boiler Room Exterior, between frame and wall of main double doors. P-1163T	None Detected
UMES2502-A62	White Seam Sealant	Tool Shed, at edge of plywood roof deck. P-1168T	None Detected
UMES2502-A63	Mineral Cap Rolled Roofing	Tool Shed, corner of roof. P-1167T	None Detected



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PROJECT NO: 8193	PROJECT NAME: Ursa Major Demo & Replacement	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 02/13-19/25
FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FLEXIBILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS (FOR EHS-ALASKA USE ONLY)
UMES2502-A64	Gray Seam Sealant	School Exterior, at the corner of Office 101, between metal window trim and concrete. P-1182T	None Detected
UMES2502-A65	Black Window Frame Gasket	School Exterior, middle of Office 101's window, between glass and framing. P-1184T	None Detected
UMES2502-A66	Grey Pliable Window Frame Sealant	School Exterior, at west corner of Classroom 153, between metal frame and concrete. P-1192T	None Detected
UMES2502-A67	Grey Pliable Concrete Seam Sealant	School Exterior, at middle of Classroom 153's windows, where concrete sill sections connect. P-1194T	None Detected
UMES2502-A68	White Pliable Door Frame Seam Sealant	School Exterior, outside Vestibule 1101, between metal door frame and concrete. P-1210T	Grays Sealant - 7% Crags White Sealant - ND
UMES2502-A69	Grey Pliable Window Frame Sealant	School Exterior, at corner of Classroom 157 and Library 141, between frame and concrete. P-1248T	None Detected
UMES2502-A70	Dark Grey Window Frame Sealant	School Exterior, Kindergarten 130, left side, between window frame and concrete. P-1258T	None Detected



Report for:

Travis Hubbard
EHS-Alaska, Inc.
11901 Business Blvd, Suite 208
Eagle River, AK 99577

Regarding: Eurofins Built Environment Testing East, LLC
Project: 8193 - Ursa Major ES
EML ID: 3960188

Approved by:

A handwritten signature in black ink, appearing to read "Frank Ehrenfeld".

Approved Signatory
Frank Ehrenfeld

Dates of Analysis:
Asbestos PLM (Layer %): 03-07-2025

Project SOPs: Asbestos PLM (Layer %) (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested.

Eurofins Built Environment Testing East, LLC ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.



Report for:

Travis Hubbard
EHS-Alaska, Inc.
11901 Business Blvd, Suite 208
Eagle River, AK 99577

Regarding: Eurofins Built Environment Testing East, LLC
Project: 8193 - Ursa Major ES
EML ID: 3960188

Approved by:

A handwritten signature in black ink, appearing to read "Frank Ehrenfeld".

Approved Signatory
Frank Ehrenfeld

Dates of Analysis:
Asbestos PLM (Layer %): 03-07-2025

Service SOPs: Asbestos PLM (Layer %) (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)
NVLAP Lab Code 101165-0

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

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Eurofins Built Environment Testing East, LLC

9000 Commerce Parkway, Suite B, Mount Laurel, NJ 08054

(856) 231-9449 www.eurofinsus.com/Built

Client: EHS-Alaska, Inc.

C/O: Travis Hubbard

Re: 8193 - Ursa Major ES

Date of Receipt: 02-25-2025

Date of Report: 03-07-2025

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A01. Light Brown Wainscot Mastic; North Corner of Front Entrance Vestibule, beneath White Raised 2" Square Pattern Plastic Wainscot. P-73T 19672942-1	Layer 1 Light Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A02. FT-4; Office 101, near Wall, Left of Doorway to Room 108, Where Dividing Wall was Previously Removed. P-88T 19672943-1	Layer 1 Maroon Floor Tile Homogeneity:Good	6% Chrysotile	94% Non-Fibrous Material	
	Layer 2 Yellow Carpet Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 3 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A03. FT-1; Office 101, near Wall, Left of Doorway to Room 108, Where Dividing Wall was Previously Removed. P-89T 19672944-1	Layer 1 White Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 3 Off-White Leveling Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A04. SV-1; Office Bathroom 107, South Corner. P-96T 19672945-1	Layer 1 Lt. Blue Sheet Flooring Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Cellulose	A

Comments: A)Black/tan mastic layers not separable.

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers of that type were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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 (856) 231-9449 www.eurofinsus.com/Built

Client: EHS-Alaska, Inc.
 C/O: Travis Hubbard
 Re: 8193 - Ursa Major ES

Date of Receipt: 02-25-2025
 Date of Report: 03-07-2025

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A04. SV-1; Office Bathroom 107, South Corner. P-96T 19672945-1(cont.)	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	A
	Layer 3 Tan Sheet Flooring Homogeneity:Good	Not Detected	100% Non-Fibrous Material	A
	Layer 4 Black/ Tan Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	A
UMES2502-A05. SV-3; Kitchen 115, a Few Feet West of the Double Door Entrance. P-178T 19672946-1	Layer 1 Off-White Sheet Flooring Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Tan Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A06. SV-4; Kitchen Office 116, adjacent to the Doorway. P-173T 19672947-1	Layer 1 White Sheet Flooring Homogeneity:Good	Not Detected	87% Non-Fibrous Material 10% Cellulose 3% Synthetic Fibers	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A07. Acoustic Plaster Wall Coating; MPR117, on Top Half of Northwest Concrete Walls, within GWB Soffit. Right of Kitchen Doors. P-210T 19672948-1	Layer 1 White Coating Homogeneity:Good	2% Chrysotile	88% Non-Fibrous Material 10% Cellulose	
UMES2502-A08. Acoustic Plaster Wall Coating; MPR117, on Top Half of Northwest Concrete Walls, within GWB Soffit. At Access Panel. P-214T 19672949-1	Layer 1 White Coating Homogeneity:Good	2% Chrysotile	88% Non-Fibrous Material 10% Cellulose	

Comments: A)Black/tan mastic layers not separable.

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 Re: 8193 - Ursa Major ES

Date of Receipt: 02-25-2025
 Date of Report: 03-07-2025

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
Appx E Sub E 40 CFR 763 / EPA 600/R-93/116

Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A09. CB-3; Stage 121, from Corner Left of Southeast Double Doors. P-237T 19672950-1(cont.)	Layer 1 Mauve Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Off-White Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A10. Joint Compound (' 95 Era); Stage 121, from Corner Left of Southeast Double Doors, behind Cove Base. P-237T 19672951-1	Layer 1 White Joint Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A11. Off-White Carpet Mastic (CPT-3; Black Woven Short- Shag); Stage 121, from Corner Left of Southeast Double Doors. P-237T 19672952-1	Layer 1 Off-White Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A12. FT-1; Stage Storage 123, from Right of Doorway. P-242T 19672953-1	Layer 1 White Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A13. Cream Stair Riser Mastic; Stage 121, Northwest Stairway, beneath Riser. P-244T 19672954-1	Layer 1 Off-White Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A14. Off-White/Clear Stair Tread Mastic; Stage 121, Northwest Stairway, beneath Tread. P-244T 19672955-1	Layer 1 Gray Non-Fibrous Material (Stair Tread) Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Off-White Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A15. WT-1; Corridor 1002, West Wall, where Corner of Bathroom Extrudes. P-246T 19672956-1	Layer 1 Tan Texture Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

Comments:

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Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A16. Red & Yellow Nose Trim Mastics; Stage 121, at Edge of Stage on East Side, beneath Trim. P-247T 19672957-1	Layer 1 Red Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A17. Yellow Carpet Mastic (CPT-3; Black Woven Short-Shag); Corridor 1003, Left of Door to Classroom 130. P-266T 19672958-1	Layer 1 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A18. Joint Compound, GWB ('95 Era); Classroom 130, Southern Corner under CB, Left of Door Exterior. P-267T 19672959-1	Layer 1 White Drywall with Brown Paper Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Cellulose	
	Layer 2 White Joint Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A19. FT-9; Classroom 130, from Tiled Area in Front of Exterior Door. P-269T 19672960-1	Layer 1 Gray Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A20. LCT-3; Classroom 130, from Ceiling a Few Feet Left of Door to Hallway. P-272 19672961-1	Layer 1 Gray Ceiling Tile with White Surface Homogeneity:Good	Not Detected	50% Cellulose 35% Glass Fibers 15% Non-Fibrous Material	
UMES2502-A21. Grey Sink Undercoating; Classroom 127, from Sink on Southeast Wall. P-307T and P-312T 19672962-1	Layer 1 Gray Sink Undercoating Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose	

Comments:

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Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A22. SV-5; Bathroom 127A, Right of Doorway. P-314T 19672963-1(cont.)	Layer 1 White/ Gray Sheet Flooring Homogeneity:Good	Not Detected	95% Non-Fibrous Material 5% Glass Fibers	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A23. Tan Wall Panel Mastic; Bathroom 130A, from Northwest Wall beneath White Raised 2" Square Pattern Paneling. P- 318T 19672964-1	Layer 1 Tan Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A24. Tan Spray -On Fireproofing (SOPF); Library 141, above Ceiling Southeast Wall. P- 326T 19672965-1	Layer 1 Tan Fireproofing Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose	
UMES2502-A25. Tan Spray -On Fireproofing (SOPF); Library 141, above Ceiling just Northwest f South Corner. P-328T 19672966-1	Layer 1 Tan Fireproofing Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose	
UMES2502-A26. Tan Spray -On Fireproofing (SOPF); Library 141, above Ceiling at Midpoint between Central Column and Southwest Wall, where SOPF Begins. P-331T 19672967-1	Layer 1 Tan Fireproofing Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose	
UMES2502-A27. CB-4; Library 141, from Column at Midpoint of Southwest Wal. P-339T 19672968-1	Layer 1 Light Brown Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Dark Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A28. WT-2; Library 141, from Column at Midpoint of Southwest Wal. P-340T 19672969-1	Layer 1 White Texture Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

Comments:

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Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A29. Joint Compound, GWB ('82 Era); Library 141, from Left Corner of Southwest Column and Wall. P-342T 19672970-1(cont.)	Layer 1 White Drywall with Brown Paper Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Cellulose	
	Layer 2 White Joint Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A30. Orange & Black Carpet Mastics (CPT4); Library 141, Right of Southwest Column, from Floor that was '52 Era. P-384T 19672971-1	Layer 1 Black/ Tan Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	A
UMES2502-A31. Yellow Wall Carpet Mastic; Library 141, from Southwest Wall Column, under Wall Carpet. P-388T 19672972-1	Layer 1 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A32. Yellow Carpet Mastic (CPT-4); Library 141, Left of Southeast Wall Column, from Floor that was '82 Era. P-389T 19672973-1	Layer 1 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A33. Yellow Carpet Mastic (CPT-4); Library 142, near Southeast Wall, from Floor that was '52 Era. P-395T 19672974-1	Layer 1 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A34. Joint Compound ('82 Era); Library 141, from Northwest Wall above Doorway and Lay-In Ceiling. P-404T 19672975-1	Layer 1 White Joint Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A35. SV-6; Library 144, in Front of Doorway. P-406T 19672976-1	Layer 1 Brown Sheet Flooring Homogeneity:Good	20% Chrysotile	80% Non-Fibrous Material	B
UMES2502-A36. W-2; Library 141, from Northwest Wall, a Few Feet Right of Doorway. P-408T 19672977-1	Layer 1 White Texture Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A37. Ceramic FT Grout; Restroom 137, just Past Entrance Vestibule. P-433T 19672978-1	Layer 1 Gray Grout Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

Comments: A)Mastics not separable. B)Mastic layers inseparable without cross contamination from positive sheet floor backing material.

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UMES2502-A38. SV-4; Classroom 151, at Threshold to Hallway. P-500T 19672979-1	Layer 1 White Sheet Flooring Homogeneity: Good	Not Detected	82% Non-Fibrous Material 15% Cellulose 3% Synthetic Fibers	
	Layer 2 Yellow Mastic Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A39. Tan Utilidor Insulation Fiber Board, Black Hot Mop Tar; Basement 38, at West Utilidor Entrance. P-565T 19672980-1	Layer 1 Brown Fiberboard Homogeneity: Good	Not Detected	95% Cellulose 5% Non-Fibrous Material	
	Layer 2 Black Tar Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A40. Olive Gasket; Basement 35, North Corner, at Utilidor Entrance. P-568T 19672981-1	Layer 1 Green Gasket Homogeneity: Good	Not Detected	60% Non-Fibrous Material 40% Synthetic Fibers	
	Layer 2 Dark Brown Mastic Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A41. Wall Plaster, Skim Coat; Classroom 213, Northeast Wall. P-250F 19672982-1	Layer 1 White Plaster Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A42. Ceiling Plaster, Skim Coat; Corridor 1200, above Ceiling, where Era Changes from '52 to '95, near Left Double Doors. P- 1019T 19672983-1	Layer 1 White Plaster Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Plaster Homogeneity: Good	Not Detected	100% Non-Fibrous Material	

Comments:

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Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A43. CB-2; Corridor 1200, across from Left Edge of Double Doors, at Column. P-1020T 19672984-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Tan Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A44. Yellow Carpet Mastic (CPT-3; Black Woven Short-Shag); Corridor 1200, across from Left Edge of Double Doors, beneath Column.P-1020T 19672985-1	Layer 1 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A45. White Duct Seam Sealant Tape; Gym Fan Room 286, from Major Duct near Ladder. P-271F 19672986-1	Layer 1 White Tape Homogeneity:Good	Not Detected	70% Non-Fibrous Material 30% Cellulose	
UMES2502-A46. Joint Compound, GWB ('95 Era); Gym Office 188, West Corner. P-1036T 19672987-1	Layer 1 White Drywall with Brown Paper Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Cellulose	
	Layer 2 White Joint Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A47. FT-1; Gym Office 188, West Corner. P-1037T 19672988-1	Layer 1 White Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A48. Brown Wall Panel Mastic; Gym 184, from Northeast Wall near Doors, behind Fiberglass-Reinforced Paneling. P-1051T 19672989-1	Layer 1 Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A49. CB-5; Generator Room, South Wall. P-277F 19672990-1(cont.)	Layer 1 Gray Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Tan Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A50. Brick Red Firestop; Generator Room, Northeast Corner, High Up at Wall Penetration for Piping. P-279F 19672991-1	Layer 1 Red Fire Stop Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Synthetic Fibers	
UMES2502-A51. Off-White Pliable Seam Sealant; Generator Room, at Edge of East Shutter Dodors. P-1135T 19672992-1	Layer 1 Off-White Sealant Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A52. Joint Compound (~' 04 Era); Generator Room, Northeast Corner, High Up beneath Wall Penetration for Piping. P-280F 19672993-1	Layer 1 White Joint Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	A
UMES2502-A53. Off-White Duct Mastic; Generator Room, Adhering Fiberglass Insulation to Metal Duct. P-1147T 19672994-1	Layer 1 Off-White Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A54. Joint Compound (~' 04 Era); Boiler Room, Southwest Corner. P-285F 19672995-1	Layer 1 White Joint Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A55. Tan/Yellow Penetration Sealant; Boiler Room, Southeast Corner, High Up at Penetration for Piping. P-1147T 19672996-1	Layer 1 Yellow Sealant Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A56. Joint Compound (~' 04 Era); Boiler Room, West Wall, above Sink. P-288F 19672997-1	Layer 1 White Joint Compound Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

Comments: A)

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Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A57. Mint Green Gasket; Boiler Room, on West (Back Side of Boiler #1. P-1151T 19672998-1	Layer 1 Green Gasket Homogeneity: Good	Not Detected	50% Synthetic Fibers 40% Non-Fibrous Material 5% Glass Fibers 5% Wollastonite	
UMES2502-A58. White/Yellow Rope Gasket; Boiler Room, on West (Back Side of Boiler #2. P-1160T 19672999-1	Layer 1 Off-White Gasket Homogeneity: Good	Not Detected	98% Glass Fibers 2% Non-Fibrous Material	
UMES2502-A59. Mint Green Gasket; Boiler Room, from Piping to the Right of Boiler #3, Closet to Sink. P-291F 19673000-1	Layer 1 Green Gasket Homogeneity: Good	Not Detected	60% Non-Fibrous Material 20% Cellulose 20% Synthetic Fibers	
UMES2502-A60. Black Flange Gasket; Boiler Room Exterior, Left of the Double Doors at the Exterior Vertical Piping. P-1164T 19673001-1	Layer 1 Black Gasket Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A61. Tan Pliable Doo Frame Sealant; Boiler Room Exterior, between Frame and Wall of Main Double Doors. P-1163T 19673002-1	Layer 1 Tan Sealant Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A62. White Seam Sealant; Tool Shed, at Edge of Plywood Roof Deck. P-1168T 19673003-1	Layer 1 White Sealant Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A63. Mineral Cap Rolled Roofing; Tool Shed, Corner of Roof. P-1167T 19673004-1	Layer 1 Black/ Brown Roofing Material Homogeneity: Good	Not Detected	85% Non-Fibrous Material 15% Glass Fibers	
UMES2502-A64. Gray Seam Sealant; School Exterior, at the Corner of Office 101, between Metal Window Trim and Concrete. P-1182T 19673005-1	Layer 1 Gray Sealant Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A65. Black Window Frame Gasket; School Exterior, Middle of Office 101's Window, between Glass and Framing. P- 1184T 19673006-1	Layer 1 Black Gasket Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A66. Grey Pliable Window Frame Sealant; School Exterior, at West Corner of Classroom 153, between Metal Frame and Concrete. P-1192T 19673007-1	Layer 1 Gray Sealant Homogeneity: Good	Not Detected	100% Non-Fibrous Material	

Comments:

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

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‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Eurofins Built Environment Testing East, LLC

9000 Commerce Parkway, Suite B, Mount Laurel, NJ 08054

(856) 231-9449 www.eurofinsus.com/Built

Client: EHS-Alaska, Inc.

C/O: Travis Hubbard

Re: 8193 - Ursa Major ES

Date of Receipt: 02-25-2025

Date of Report: 03-07-2025

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID # Lab-ID version	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
UMES2502-A67. Grey Pliable Concrete Seam Sealant; School Exterior, at Middle of Classroom 153' s Windows, where Concrete Sill Sections Connect. P-1194T 19673008-1	Layer 1 Gray Sealant Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A68. White Pliable Door Fram Seam Sealant; School Exterior, Outside Vestibule 1101, between Metal Door Fram and Concrete. P- 1210T 19673009-1	Layer 1 White Sealant Homogeneity: Good	Not Detected	100% Non-Fibrous Material	A
	Layer 2 Dark Gray Sealant Homogeneity: Good	7% Chrysotile	93% Non-Fibrous Material	A
UMES2502-A69. Grey Pliable Window Frame Sealant; School Exterior, at Corner of Classroom 157 and Library 141, between Frame and Concrete. P-1248T 19673010-1	Layer 1 Gray Sealant Homogeneity: Good	Not Detected	100% Non-Fibrous Material	
UMES2502-A70. Dark Grey Window Frame Sealant; School Exterior, Kindergarten 130, Left Sde, between Window frame and Concrete. P- 1258T 19673011-1	Layer 1 Dark Gray Sealant Homogeneity: Good	Not Detected	100% Non-Fibrous Material	

Comments: A) Thin layer attached to white sealant.**Analyst(s):** Rebecca Hargrove
Whitney Champion

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

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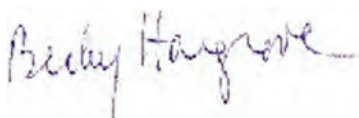
Client: EHS-Alaska, Inc.

C/O: Travis Hubbard

Re: 8193 - Ursa Major ES

Date of Receipt: 02-25-2025

Date of Report: 03-07-2025

Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116****PROJECT ANALYSTS AND SIGNATORY REPORT****Project Analysts****Analyst:** Whitney Champion**Analyst:** Rebecca Hargrove

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



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PROJECT NO: 7724-01	PROJECT NAME: ASD Ursa Major Project Analysis	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 06/06/22
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CHAIN OF CUSTODY RECORD			
ANALYSIS REQUESTED:	☒ PLM BULK ☐ PLM DUST ☐ TEM BULK ☐ LEAD DUST ☐ LEAD TCLP ☐ LEAD PPM ☒ TEM MICROVAC DUST (ASTM 5756)	TYPE: ☒ ASBESTOS ☐ LEAD	TURNAROUND: 2 DAYS
		DISPOSAL: NORMAL	QUANTITY: 73

COLLECTED BY (signature) John Lamont PRINTED NAME 20220011 / T-30203-41066 CERT# / AHERA# FedEx SHIPPING METHOD FedEx: 7770 6731 6740 COURIER (signature) 06/08/2022 1100 am DATE/TIME	IATL SELECTED LABORATORY SAMPLES ACCEPTED BY DATE/TIME ANALYST'S SIGNATURE DATE	SPECIAL INSTRUCTIONS / COMMENTS: LAB: RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA, INC. See sample location drawing for more detailed explanation of exact locations.
---	--	--

FIELD SURVEY DATA <i>ND = NONE DETECTED</i>			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
UM0622-A01	White joint compound, appears to be thick skim coat	First Floor Room 102: North corner of room above suspended ceiling at old pipe chase, on gypsum wall board. Photo 17 JHL	<i>BOTH LAYERS = ND</i>
UM0622-A02	Gypsum wall board, older	First Floor Room 102: North corner of room above suspended ceiling at old pipe chase, gypsum wall board. Photo 18 JHL	<i>ND</i>
UM0622-A03	White joint compound	First Floor Room 102: North corner of room above suspended ceiling at new pipe chase, on gypsum wall board. Photo 19 JHL	<i>ND</i>
UM0622-A04	Gypsum wall board, newer	First Floor Room 102: North corner of room above suspended ceiling at new pipe chase, gypsum wall board. Photo 19 JHL	<i>ND</i>
UM0622-A05	White 12" x 12" smooth-face fiberglass ceiling tile	First Floor Room 102: North corner of room above drop ceiling, directly adhered to bottom side of concrete decking. Photo 24 JHL	<i>BOTH LAYERS = ND</i>
UM0622-A06	Hard dark brown ceiling tile mastic to Sample A05 **ignore fiberglass, same as sample A05**	First Floor Room 102: North corner of room above drop ceiling, adhering fiberglass ceiling tile to the bottom side of the concrete decking. Photo 24 JHL	<i>ND</i>
UM0622-A07	2' x 4' lay in ceiling tile with beveled edges, 4" squares, 1/4 to 1/2-inch fissures, and 1/8 to 1/16-inch holes	First Floor Room 102: Typical ceiling tile throughout room on screwed-in ceiling grid. Photo 27 JHL	<i>ND</i>
UM0622-A08	6" black vinyl cove base; cream cove base mastic	Second Floor Classroom 235: Southwest quadrant of room adhered to marlite wall board. Photo 15 RAF	<i>BOTH LAYERS = ND</i>



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PROJECT NO:	PROJECT NAME:	FACILITY:	COLLECTION DATE:
7724-01	ASD Ursa Major Project Analysis	Ursa Major Elementary School	06/06/22
FIELD SURVEY DATA <i>ND = NONE DETECTED</i>			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
UM0622-A09	Hard dark brown cove base mastic; dark brown marlite	Second Floor Classroom 235: Southwest quadrant of room, remnant mastic under black cove base to marlite wall board. Photo 15 RAF	<i>BOTH LAYERS = ND</i>
UM0622-A10	White 1' x 2' smooth-face fiberglass wall tile	Second Floor Classroom 235: West corner of room adhered to unfinished gypsum wall board with dark brown mastic. Photo 37 JHL	<i>BOTH LAYERS = ND</i>
UM0622-A11	Hard dark brown wall tile mastic to sample A10 <i>**ignore fiberglass, same as sample A10**</i>	Second Floor Classroom 235: West corner of room adhering fiberglass wall tile to gypsum wall board. Photo 37 JHL	<i>ND</i>
UM0622-A12	White 12" x 12" smooth-face fiberglass ceiling tile	Second Floor Classroom 235: West corner of room directly adhered to unfinished gypsum board with dark brown mastic. Photo 38 JHL	<i>ND</i>
UM0622-A13	Hard dark brown ceiling tile mastic to sample A12 <i>**ignore fiberglass, same as sample A12**</i>	Second Floor Classroom 235: West corner of room adhering fiberglass ceiling tile to unfinished gypsum board. Photo 39 JHL	<i>ND</i>
UM0622-A14	Unfinished gypsum board	Second Floor Classroom 235: West corner of room under fiberglass ceiling tile. Photo 41 JHL	<i>ND</i>
UM0622-A15	Hard grey floor tile, (can't tell size); with black mastic; with sticky cream carpet mastic	Second Floor Classroom 235: South quadrant of room underneath blue short shag carpet, at transition strip to rubber flooring, adhered to concrete with black mastic. Photos 16-18 RAF	<i>FT = 5.8% CHRYOTILE MASTIC = 1.2% CREAM = ND</i>
UM0622-A16	Sticky cream carpet mastic	Second Floor Classroom 235: south quadrant of room adhering blue short shag carpet to grey floor tile. Photo 46 JHL	<i>ND</i>
UM0622-A17	White joint compound; gypsum wall board, newer	Second Floor Mechanical Room 236: South wall of mechanical room at new patch in wall, unfinished gypsum wall board. Photo 57 JHL	<i>BOTH LAYERS = ND</i>
UM0622-A18	White joint compound; gypsum wall board, older	Second Floor Mechanical Room 236: East wall of mechanical room at older gypsum wall board wall. Photo 59 JHL	<i>JL = 1.5% CHRYOTILE GWB = ND</i>
UM0622-A19	Maroon floor tile (can't tell size); with tarry black mastic	Second Floor Mechanical Room 236: East wall of mechanical room at door threshold, underneath 12" x 12" beige birch bark floor tile, adhered to concrete with black mastic. Photo 77 JHL	<i>FT = 6.1% CHRYOTILE TRACE @ BLACK MASTIC</i>
UM0622-A20	White 12" x 12" smooth-face fiberglass ceiling tile	Second Floor Corridor 2000: Adjacent to classroom 225 above drop ceiling. Photo 75 JHL	<i>ND</i>
UM0622-A21	Hard dark brown ceiling tile mastic to sample A20 <i>**ignore fiberglass, same as sample A20**</i>	Second Floor Corridor 2000: Adjacent to classroom 225 above drop ceiling, adhering fiberglass ceiling tile to gypsum board. Photo 75 JHL	<i>ND</i>


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PROJECT NO: 7724-01	PROJECT NAME: ASD Ursa Major Project Analysis	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 06/06/22
FIELD SURVEY DATA ND = NONE DETECTED			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
UM0622-A22	Gypsum wall board	Second Floor Corridor 2000: Adjacent to classroom 225 above suspended ceiling, gypsum wall board. No Photo #	ND
UM0622-A23	Cream 12"x12" birch bark floor tile; hard brown mastic	Second Floor Corridor 2000: Adjacent to classroom 223, above and adhered to Sample A24. Photo 78 JHL	BOTH LAYERS = ND
UM0622-A24	Maroon floor tile; with tarry black mastic (bottom); with hard brown mastic (top)	Second Floor Corridor 2000: Adjacent to classroom 223 underneath Sample A23, adhered to concrete with black mastic. Photo 78 JHL	FT = 6.1% CHRYSTILE MASTIC = ND
UM0622-A25	Tan pliable mastic for faux 2" x 2" marlite wall tile	Second Floor Corridor 2000: Adjacent to classroom 223 adhering marlite wall panel to plywood substrate. Photo 79 JHL	ND
UM0622-A26	6" flexible beige cove base; pliable cream cove base mastic	Second Floor Corridor 2000: Adjacent to classroom 223 adhered to marlite wall panel with cream mastic. Photo 80 JHL	BOTH LAYERS = ND
UM0622-A27	White joint compound; gypsum wall board	Second Floor Corridor 2000: Adjacent to classroom 223 above suspended ceiling, gypsum board. Photo 68 RAF	1.3% CHRYSTILE
UM0622-A28	White joint compound	Second Floor Corridor 2000: Adjacent to classroom 224, white skim coat under wall carpet, on metal nosing. Photo 85 JHL	ND
UM0622-A29	Soft cream wall carpet mastic	Second Floor Corridor 2000: Adjacent to classroom 224 adhering wall carpet to skim coat over marlite. Photo 81 JHL	ND
UM0622-A30	Dark brown marlite wall board; white joint compound skim coat	Second Floor Corridor 2000: Adjacent to classroom 224 under wall carpet and over gypsum wall board. Photo 86 JHL	BOTH LAYERS = ND
UM0622-A31	Gypsum wall board	Second Floor Corridor 2000: Adjacent to classroom 224 under marlite wall board. Photo 86 JHL	ND
UM0622-A32	Green 9" x 9" floor tile; with tarry black mastic (bottom); with sticky cream carpeted mastic (top)	Second Floor Classroom 223: At threshold to room, underneath blue short shag carpet and adhered to concrete with black mastic. Photo 69 RAF	FT = 5.7% CHRYSTILE BOTH MASTIC = ND
UM0622-A33	Tarry black floor tile mastic	Second Floor Classroom 213: Left of door to classroom, adhering brown floor tile to concrete. Photo 95 JHL	ND
UM0622-A34	Brown floor tile; with sticky cream carpet mastic **ignore black mastic, same as sample A33**	Second Floor Classroom 213: Left of door to classroom, underneath blue short shag carpet adhered to concrete with black mastic. Photo 95 JHL	FT = 4.8% CHRYSTILE MASTIC = ND


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PROJECT NO: 7724-01	PROJECT NAME: ASD Ursa Major Project Analysis	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 06/06/22
FIELD SURVEY DATA ND = NONE DETECTED			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
UM0622-A35	White plaster finish coat **ignore hard brown mastic, same as sample A36**	Second Floor Classroom 213: Left of door to classroom, finish coat over scratch coat, brown mastic for cove base. Photo 95 JHL	ND
UM0622-A36	6" flexible dark brown cove base; pliable brown cove base mastic	Second Floor Classroom 213: Left of door to classroom, adhered to white plaster finish coat with brown mastic. Photo 95 JHL	BOTH LAYERS = ND
UM0622-A37	White plaster finish coat; grey scratch coat	Second Floor Classroom 213: North side of classroom, plaster finish and scratch coat over concrete. Photo 97 JHL	ND
UM0622-A38	White plaster finish coat, grey scratch coat	Second Floor Classroom 212: South corner of classroom, plaster finish and scratch coat over concrete. Photo 78 RAF	BOTH LAYERS = ND
UM0622-A39	Plywood with paint and nail hole patch	Second Floor Classroom 212: South corner of classroom, painted wood trim over plaster. Photo 78 RAF	ND
UM0622-A40	Tan rubber flooring; hard tan mastic, hard grey leveling compound	Second Floor Classroom 212: Southeast quadrant of classroom at carpet transition strip to rubber floor, over concrete. Photo 79 RAF	FT = 4.6% CHRYSO TILE MASTIC = ND
UM0622-A41	Soft cream wall carpet mastic; gypsum wall board; white joint compound	Stairwell 210: South quadrant of stairwell, wall carpet adhered with cream adhesive, over gypsum wall board. Photo 90 RAF	BOTH LAYERS = ND
UM0622-A42	Sandy texture, white coating on concrete	Stairwell 210: South quadrant of stairwell, at short wall/ledge on concrete. Photo 91 RAF	ND
UM0622-A43	Sandy texture, white coating on concrete	Corridor 1000 & Corridor 1002: North wall adjacent to stairwell 210, on concrete. Photo 119 JHL	ND
UM0622-A44	Soft cream wall carpet mastic	Corridor 1002: Northeast wall towards corridor 1000 adjacent to MPR 117, adhering wall carpet to joint compound. Photo 120 JHL	ND
UM0622-A45	White joint compound	Corridor 1002: Northeast wall towards corridor 1000 adjacent to MPR 117, on metal nosing over gypsum board. Photo 122 JHL	ND
UM0622-A46	White joint compound; gypsum wall board	Corridor 1002: Northeast wall towards corridor 1000 adjacent to MPR 117, gypsum wall board on metal stud. Photo 122 JHL	BOTH LAYERS = ND
UM0622-A47	Hard brown wall tile mastic and remnant fiberglass wall tile	First Floor Room 150: North wall of room 150 above suspended ceiling, holding fiberglass wall tile to concrete. Photo 96 RAF	ND
UM0622-A48	White joint compound; gypsum wall board	First Floor Room 150: North wall of room 150 above suspended ceiling, gypsum board furred over concrete. Photo 96 RAF	BOTH LAYERS = ND


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PROJECT NO:	PROJECT NAME:	FACILITY:	COLLECTION DATE:
7724-01	ASD Ursa Major Project Analysis	Ursa Major Elementary School	06/06/22
FIELD SURVEY DATA ND = NONE DETECTED			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
UM0622-A49	2' x 4' 3/8" and smaller random circular pattern fissures, "galaxy" pattern with flat edge lay in ceiling tile	First Floor Room 150: Typical ceiling tile throughout room on nailed-in ceiling grid. Photo 105 RAF	ND
UM0622-A50	Hard white "fix all"; with sticky cream carpet mastic	First Floor Room 150: At threshold to room, under multicolored short shag carpet over concrete. Photo 107 RAF	BOTH LAYERS = ND
UM0622-A51	Light brown 9" x 9" floor tile; with tarry black mastic (bottom); with sticky cream carpet mastic (top)	First Floor Room 150: South quadrant of room, under multicolored short shag carpet, adhered to concrete with black mastic. Photo 106 RAF	FT = 5.3% CHRYSOTILE MASTIC = TRACE
UM0622-A52	Soft cream wall carpet mastic	First Floor Vestibule 1001: Northwest wall of vestibule, adhering wall carpet to joint compound. Photo 123 JHL	ND
UM0622-A53	White joint compound **ignore cream mastic, same as A52**	First Floor Vestibule 1001: Northwest wall of vestibule, white skim coat under wall carpet over marlite board. Photo 124 JHL	ND
UM0622-A54	Dark brown marlite wall board; white joint compound	First Floor Vestibule 1001: Northwest wall of vestibule, under wall carpet and over gypsum wall board. Photo 124 JHL	BOTH LAYERS = ND
UM0622-A55	Gypsum wall board **ignore dark brown marlite wall board, same as A54**	First Floor Vestibule 1001: Northwest wall of vestibule, gypsum board under marlite. Photo 125 JHL	ND
UM0622-A56	Tarry black (probably remnant) flooring mastic	First Floor Vestibule 1001: Southwest quadrant of vestibule, adhering multicolored short shag carpet to concrete. Photo 128 JHL	1.2% CHRYSOTILE
UM0622-A57	6" flexible beige cove base; with pliable tan and light brown cove base mastics	First Floor Vestibule 1001: Southwest wall of vestibule, adhered to marlite wall panel with tan mastic. Photo 130 JHL	BOTH LAYERS = ND
UM0622-A58	Gypsum wall board	First Floor Vestibule 1001: Southwest wall of vestibule, gypsum wall board. Photo 132 JHL	BOTH LAYERS = ND
UM0622-A59	Fluffy grey spray-on fireproofing	First Floor Library 141: Center of room near structural column above suspended ceiling on steel beam. Photo 156 JHL	ND
UM0622-A60	Hard dark brown remnant wall tile mastic; with remnant fiberglass from wall tile	First Floor Library 141: Center of room near structural column above suspended ceiling on unfinished gypsum wall board. Photo 158	ND
UM0622-A61	Fluffy gray spray-on fireproofing	First Floor Library 141: Center of room near structural column above suspended ceiling on wood framing. Photo 160 JHL	ND
UM0622-A62	Gypsum wall board, older	First Floor Library 141: Center of room near structural column above suspended ceiling, remnant unfinished gypsum wall board. Photo 161 JHL	ND


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PROJECT NO: 7724-01	PROJECT NAME: ASD Ursa Major Project Analysis	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 06/06/22
FIELD SURVEY DATA ND= NONE DETECTED			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTOS/REF)	RESULTS FOR EHS-ALASKA USE ONLY
UM0622-A63	6" flexible beige cove base; with pliable cream cove base mastic; with tarry black carpet mastic; with white joint compound	First Floor Library 141: Center of room on south side of structural column, under wall carpet on gypsum board. Photo 118-119 RAF	ALL LAYERS = ND
UM0622-A64	White joint compound; gypsum wall board	First Floor Library 141: Center of room on south side of structural column, under wall carpet. Photo 120 RAF	JC= ND, GWB NOT DETECTED
UM0622-A65	Hard grey leveling compound; hard brown carpet mastic, with remnant tarry black mastic	First Floor Library 141: Center of room on south side of structural column, under blue short shag carpet, over concrete. Photo 121 RAF	ALL LAYERS = ND
UM0622-A66	White joint compound; gypsum wall board	First Floor Corridor 1100: Adjacent to classroom 154, above suspended ceiling, gypsum wall board. Photo 123 RAF	JC= 1.7% CHRYSO TILE GWB= ND
UM0622-A67	Greenish Gray 9"x9" floor tile; with tarry black mastic **ignore tan mastic, same as A68**	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, underneath beige birch bark floor tile and adhered to concrete with black mastic. Photo 167 JHL	FT= 0.25% CHRYSO TILE MASTIC= 1.2% CHRYSO TILE
UM0622-A68	Beige 12"x12" birch bark floor tile; with hard tan mastic	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, adhered to 9"x9" green floor tile with tan mastic. Photo 166 JHL	BOTH LAYERS = ND
UM0622-A69	White joint compound	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, behind plywood on gypsum wall board. Photo 168 JHL	ND
UM0622-A70	Gypsum wall board	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, gypsum wall board behind plywood. Photo 168 JHL	BOTH LAYERS = ND
UM0622-A71	6" flexible beige cove base; with pliable cream cove base mastic	First Floor Corridor 1100: Adjacent to room 141 at southeast jog in wall, cove base adhered to marlite wall panel with cream mastic. Photo 170 JHL	BOTH LAYERS = ND
UM0622-A72	Brown rubber flooring; with hard brown mastic	First Floor Classroom 157: North corner of room at transition from carpet to rubber floor, rubber floor adhered to green 9"x9" floor tile with brown mastic. Photo 140 RAF	BOTH LAYERS = ND
UM0622-A73	Green 9"x9" floor tile; with tarry black mastic **ignore tan mastic, same as A72**	First Floor Classroom 157: North corner of room at transition from carpet to rubber floor, floor tile adhered to concrete with black mastic. Photo 140 RAF	FT= 6.8% CHRYSO TILE MASTIC= ND
END	**END**	**END**	



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440905
Client No.: UM0622-A01

Analyst Observation: White/Off-White Joint Compound
Client Description: White Joint Compound, Appears To Be Thick Skim Coat

Location: 1st Floor Rm 102: North Corner Of Rm Above Suspended Ceiling At Old Pipe Chase, On Gypsum Wallboard.

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440905(L2)
Client No.: UM0622-A01

Analyst Observation: White Joint Compound
Client Description: White Joint Compound, Appears To Be Thick Skim Coat

Location: 1st Floor Rm 102: North Corner Of Rm Above Suspended Ceiling At Old Pipe Chase, On Gypsum Wallboard.

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440906
Client No.: UM0622-A02

Analyst Observation: Lt Tan Drywall
Client Description: Gypsum Wallboard, Older

Location: 1st Floor Rm 102: North Corner Of Rm Above Suspended Ceiling At Old Pipe Chase, Gypsum Wallboard. Ph

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
10 Cellulose

Facility:
Percent Non-Fibrous Material:
90

Note: Joint Compound not present.

Lab No.: 7440907
Client No.: UM0622-A03

Analyst Observation: White Joint Compound
Client Description: White Joint Compound

Location: 1st Floor Rm 102: North Corner Of Rm Above Suspended Ceiling At New Pipe Chase, On Gypsum Wallboard.

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Note: Drywall not present.

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
Date Analyzed: 06/10/2022

Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

Signature:
Analyst: Ellen Smith

Dated : 6/13/2022 2:21:53

Page 1 of 25



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CERTIFICATE OF ANALYSIS

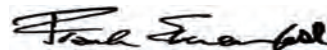
Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440908 Client No.: UM0622-A04	Analyst Observation: Lt Tan Drywall Client Description: Gypsum Wallboard, Newer	Location: 1st Floor Rm 102: North Corner Of Rm Above Suspended Ceiling At New Pipe Chase, Gypsum Wallboard. Ph Facility: Percent Non-Fibrous Material: 90
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 10 Cellulose	
Note: Joint Compound not present.		
Lab No.: 7440909 Client No.: UM0622-A05	Analyst Observation: Beige Ceiling Tile Client Description: White 12x12 Smooth-Face Fiberglass Ceiling Tile	Location: 1st Floor Rm 102: North Corner Of Rm Above Drop Ceiling, Directly Adhered To Bottom Side Of Concrete Facility: Percent Non-Fibrous Material: 1
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 99 Fibrous Glass	
Lab No.: 7440909(L2) Client No.: UM0622-A05	Analyst Observation: Off-White Covering Material Client Description: White 12x12 Smooth-Face Fiberglass Ceiling Tile	Location: 1st Floor Rm 102: North Corner Of Rm Above Drop Ceiling, Directly Adhered To Bottom Side Of Concrete Facility: Percent Non-Fibrous Material: 99
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 1 Fibrous Glass	
Lab No.: 7440910 Client No.: UM0622-A06	Analyst Observation: Brown Mastic Client Description: Hard Dk Brown Ceiling Tile Mastic To Sample A05	Location: 1st Floor Rm 102: North Corner Of Rm Above Drop Ceiling, Adhering Fiberglass Ceiling Tile To The Bot Facility: Percent Non-Fibrous Material: 99
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 1 Fibrous Glass	
Lab No.: 7440911 Client No.: UM0622-A07	Analyst Observation: Tan Ceiling Tile Client Description: 2x4 Lay-In Ceiling Tile With Beveled Edges, 4" Squares 1/4 To 1/2" Fissures, And 1/8 To 1/16" Holes	Location: 1st Floor Rm 102: Typical Ceiling Tile Throughout Rm On Screwed-In Ceiling Grid. Photo 27 JHL Facility: Percent Non-Fibrous Material: 50
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 35 Cellulose 15 Fibrous Glass	

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Page 2 of 25



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 CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

 PLM BULK SAMPLE ANALYSIS SUMMARY

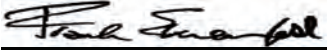
Lab No.: 7440912 Client No.: UM0622-A08	Analyst Observation: Black Cove Base Client Description: 6" Black Vinyl Cove Base, Cream Cove Base Mastic	Location: 2nd Floor Classroom 235: SW Quadrant Of Rm Adhered To Marlite Wallboard. Photo 15 RAF Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440912(L2) Client No.: UM0622-A08	Analyst Observation: Off-White Mastic Client Description: 6" Black Vinyl Cove Base, Cream Cove Base Mastic	Location: 2nd Floor Classroom 235: SW Quadrant Of Rm Adhered To Marlite Wallboard. Photo 15 RAF Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440913 Client No.: UM0622-A09	Analyst Observation: Brown Mastic Client Description: Hard Dk Brown Cove Base Mastic, Dk Brown Marlite	Location: 2nd Floor Classroom 235: SW Quadrant Of Rm, Remnant Mastic Under Black Cove Base to Marlite Wallboard Facility: Percent Non-Fibrous Material: 99
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Cellulose	
Lab No.: 7440913(L2) Client No.: UM0622-A09	Analyst Observation: Brown Fiberboard Client Description: Hard Dk Brown Cove Base Mastic, Dk Brown Marlite	Location: 2nd Floor Classroom 235: SW Quadrant Of Rm, Remnant Mastic Under Black Cove Base to Marlite Wallboard Facility: Percent Non-Fibrous Material: None Detected
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> 100 Cellulose	
Lab No.: 7440914 Client No.: UM0622-A10	Analyst Observation: Tan Wall Tile Client Description: White 1x2 Smooth-Face Fiberglass Wall Tile	Location: 2nd Floor Classroom 235: West Corner Of Rm Adhered To Unfinished Gypsum Wallboard With Dk Brown Mast Facility: Percent Non-Fibrous Material: 2
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> 98 Fibrous Glass	

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Page 3 of 25



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Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440915 Client No.: UM0622-A11	Analyst Observation: Brown Mastic Client Description: Hard Dk Brown Wall Tile Mastic To Sample A10	Location: 2nd Floor Classroom 235: West Corner Of Rm Adhering Fiberglass Wall Tile To Gypsum Wallboard. Photo Facility: Percent Non-Fibrous Material: 98
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 2 Fibrous Glass	
Lab No.: 7440916 Client No.: UM0622-A12	Analyst Observation: Beige Ceiling Tile Client Description: White 12x12 Smooth-Face Fiberglass Ceiling Tile	Location: 2nd Floor Classroom 235: West Corner Of Rm Directly Adhered To Unfinished Gypsum Board With Dk Brown Facility: Percent Non-Fibrous Material: 3
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 97 Fibrous Glass	
Lab No.: 7440917 Client No.: UM0622-A13	Analyst Observation: Brown Mastic Client Description: Hard Dk Brown Ceiling Tile Mastic To Sample A12	Location: 2nd Floor Classroom 235: West Corner Of Rm Adhering Fiberglass Ceiling Tile To Unfinished Gypsum Boa Facility: Percent Non-Fibrous Material: 99
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 1 Fibrous Glass	
Lab No.: 7440918 Client No.: UM0622-A14	Analyst Observation: Lt Tan Drywall Client Description: Unfinished Gypsum Board	Location: 2nd Floor Classroom 235: West Corner Of Rm Under Fiberglass Ceiling Tile. Photo 41 JHL Facility: Percent Non-Fibrous Material: 87
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: 13 Cellulose	
Note: Joint Compound not present.		
Lab No.: 7440919 Client No.: UM0622-A15	Analyst Observation: Olive Floor Tile Client Description: Hard Grey Floor Tile, (Can't Tell Size); With Black Mastic; With Sticky Cream Carpet Mastic	Location: 2nd Floor Classroom 235: South Quadrant Of Rm Underneath Blue Short Shag Carpet, At Transiting Strip Facility: Percent Non-Fibrous Material: 94.2
Percent Asbestos: PC 5.8 Chrysotile	Percent Non-Asbestos Fibrous Material: None Detected	

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Page 4 of 25



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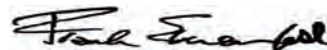
Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440919(L2) Client No.: UM0622-A15	Analyst Observation: Black Mastic Client Description: Hard Grey Floor Tile, (Can't Tell Size); With Black Mastic; With Sticky Cream Carpet Mastic	Location: 2nd Floor Classroom 235: South Quadrant Of Rm Underneath Blue Short Shag Carpet, At Transiting Strip Facility: <u>Percent Non-Fibrous Material:</u> 97.8
<u>Percent Asbestos:</u> PC 1.2 Chrysotile	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Cellulose	
Lab No.: 7440919(L3) Client No.: UM0622-A15	Analyst Observation: Off-White Mastic Client Description: Hard Grey Floor Tile, (Can't Tell Size); With Black Mastic; With Sticky Cream Carpet Mastic	Location: 2nd Floor Classroom 235: South Quadrant Of Rm Underneath Blue Short Shag Carpet, At Transiting Strip Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440920 Client No.: UM0622-A16	Analyst Observation: Off-White/Grey Mastic/Leveling Compound Client Description: Sticky Cream Carpet Mastic	Location: 2nd Floor Classroom 235: South Quadrant Of Rm Adhering Blue Short Shag Carpet To Grey Floor Tile. Ph Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440921 Client No.: UM0622-A17	Analyst Observation: Lt Tan Drywall Client Description: White Joint Compound, Gypsum Wallboard, Newer	Location: 2nd Floor Mechanical Rm 236: South Wall Of Mechanical Rm At New Patch In Wall, Unfinished Gypsum Wal Facility: <u>Percent Non-Fibrous Material:</u> 80
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> 20 Cellulose	
Lab No.: 7440921(L2) Client No.: UM0622-A17	Analyst Observation: White Joint Compound Client Description: White Joint Compound, Gypsum Wallboard, Newer	Location: 2nd Floor Mechanical Rm 236: South Wall Of Mechanical Rm At New Patch In Wall, Unfinished Gypsum Wal Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	

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Page 5 of 25



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 CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

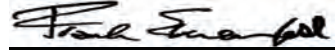
Client: EHS511

 PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440922 Client No.: UM0622-A18 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Lt Tan Drywall Client Description: White Joint Compound, Gypsum Wallboard, Older <u>Percent Non-Asbestos Fibrous Material:</u> 20 Cellulose	Location: 2nd Floor Mechanical Rm 236: East Wall Of Mechanical Rm At Older Gypsum Wallboard Wall. Photo 59 JHL Facility: <u>Percent Non-Fibrous Material:</u> 80
Lab No.: 7440922(L2) Client No.: UM0622-A18 <u>Percent Asbestos:</u> PC 1.5 Chrysotile	Analyst Observation: Off-White Joint Compound Client Description: White Joint Compound, Gypsum Wallboard, Older <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: 2nd Floor Mechanical Rm 236: East Wall Of Mechanical Rm At Older Gypsum Wallboard Wall. Photo 59 JHL Facility: <u>Percent Non-Fibrous Material:</u> 98.5
Lab No.: 7440923 Client No.: UM0622-A19 <u>Percent Asbestos:</u> PC 6.1 Chrysotile	Analyst Observation: Brown Floor Tile Client Description: Maroon Floor Tile (Can't Tell Size); With Tarry Black Mastic <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: 2nd Floor Mechanical Rm 236: East Wall Of Mechanical Rm At Door Threshold, Underneath 12x12 Beige Bi Facility: <u>Percent Non-Fibrous Material:</u> 93.9
Lab No.: 7440923(L2) Client No.: UM0622-A19 <u>Percent Asbestos:</u> PC Trace Chrysotile	Analyst Observation: Black Mastic Client Description: Maroon Floor Tile (Can't Tell Size); With Tarry Black Mastic <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: 2nd Floor Mechanical Rm 236: East Wall Of Mechanical Rm At Door Threshold, Underneath 12x12 Beige Bi Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7440924 Client No.: UM0622-A20 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Beige Ceiling Tile Client Description: White 12x12 Smooth-Face Fiberglass Ceiling Tile <u>Percent Non-Asbestos Fibrous Material:</u> 98 Fibrous Glass	Location: 2nd Floor Corridor 2000: Adj To Classroom 225 Above Drop Ceiling. Photo 75 JHL Facility: <u>Percent Non-Fibrous Material:</u> 2

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Page 6 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440925 Client No.: UM0622-A21	Analyst Observation: Brown Mastic Client Description: Hard Dk Brown Ceiling Tile Mastic To Sample A20	Location: 2nd Floor Corridor 2000: Adj To Classroom 225 Above Drop Ceiling, Adhering Fiberglass Ceiling Tile T Facility: Percent Non-Fibrous Material: 99
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Fibrous Glass	
Lab No.: 7440926 Client No.: UM0622-A22	Analyst Observation: Lt Tan Drywall Client Description: Gypsum Wallboard	Location: 2nd Floor Corridor 2000: Adj To Classroom 225 Above Suspended Ceiling, Gypsum Wallboard. No Photo # Facility: Percent Non-Fibrous Material: 80
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 20 Cellulose	
<u>Note: Joint Compound not present.</u>		
Lab No.: 7440927 Client No.: UM0622-A23	Analyst Observation: Off-White Floor Tile Client Description: Cream 12x12 Birch Bark Floor Tile, Hard Brown Mastic	Location: 2nd Floor Corridor 2000: Adj To Classroom 223, Above And Adhered To Sample A24. Photo 78 JHL Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440927(L2) Client No.: UM0622-A23	Analyst Observation: Brown Mastic Client Description: Cream 12x12 Birch Bark Floor Tile, Hard Brown Mastic	Location: 2nd Floor Corridor 2000: Adj To Classroom 223, Above And Adhered To Sample A24. Photo 78 JHL Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440928 Client No.: UM0622-A24	Analyst Observation: Brown Floor Tile Client Description: Maroon Floor Tile, With Tarry Black Mastic (Bottom), With Hard Brown Mastic (Top)	Location: 2nd Floor Corridor 2000: Adj To Classroom 223 Underneath Sample A23, Adhered To Concrete With Black Facility: Percent Non-Fibrous Material: 93.9
<u>Percent Asbestos:</u> PC 6.1 Chrysotile	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	

Note: Insufficient mastic provided for analysis.

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11901 Business Blvd., Ste 208
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Report Date: 6/10/2022
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Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440929
Client No.: UM0622-A25

Analyst Observation: Tan Mastic
Client Description: Tan Pliable Mastic For Faux 2x2 Marlite Wall Tile

Location: 2nd Floor Corridor 2000: Adj To Classroom 223 Adhering Marlite Wall Panel To Plywood Substrate. Phot

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440930
Client No.: UM0622-A26

Analyst Observation: Tan Cove Base
Client Description: 6" Flexible Beige Cove Base, Pliable Cream Cove Base Mastic

Location: 2nd Floor Corridor 2000: Adj To Classroom 223 Adhered To Marlite Wall Panel With Cream Mastic. Photo

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440930(L2)
Client No.: UM0622-A26

Analyst Observation: Off-White Mastic
Client Description: 6" Flexible Beige Cove Base, Pliable Cream Cove Base Mastic

Location: 2nd Floor Corridor 2000: Adj To Classroom 223 Adhered To Marlite Wall Panel With Cream Mastic. Photo

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440931
Client No.: UM0622-A27

Analyst Observation: Off-White Joint Compound
Client Description: White Joint Compound, Gypsum Wallboard

Location: 2nd Floor Corridor 2000: Adj To Classroom 223 Above Suspended Ceiling, Gypsum Board. Photo 68 RAF

Percent Asbestos:
PC 1.3 Chrysotile

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
98.7

Note: Insufficient drywall provided for analysis.

Lab No.: 7440932
Client No.: UM0622-A28

Analyst Observation: White Joint Compound
Client Description: White Joint Compound

Location: 2nd Floor Corridor 2000: Adj To Classroom 224, White Skim Coat Under Wall Carpet, On Metal Nosing. P

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Note: Drywall not present.

Please refer to the Appendix of this report for further information regarding your analysis.

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Page 8 of 25



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11901 Business Blvd., Ste 208
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Report Date: 6/10/2022
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Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440934
Client No.: UM0622-A29

Analyst Observation: Off-White Mastic
Client Description: Soft Cream Wall Carpet Mastic

Location: 2nd Floor Corridor 2000: Adj To Classroom 224 Adhering Wall Carpet To Skim Coat Over Marlite. Photo

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Sample received wet

Lab No.: 7440934
Client No.: UM0622-A30

Analyst Observation: Brown Fiberboard
Client Description: Dk Brown Marlite Wallboard, White Joint Compound Skim Coat

Location: 2nd Floor Corridor 2000: Adj To Classroom 224 Under Wall Carpet And Over Gypsum Wallboard. Photo 86

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
100 Cellulose

Facility:
Percent Non-Fibrous Material:
None Detected

Lab No.: 7440934(L2)
Client No.: UM0622-A30

Analyst Observation: White Joint Compound
Client Description: Dk Brown Marlite Wallboard, White Joint Compound Skim Coat

Location: 2nd Floor Corridor 2000: Adj To Classroom 224 Under Wall Carpet And Over Gypsum Wallboard. Photo 86

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440935
Client No.: UM0622-A31

Analyst Observation: Lt Tan Drywall
Client Description: Gypsum Wallboard

Location: 2nd Floor Corridor 2000: Adj To Classroom 224 Under Marlite Wallboard. Photo 86 JHL

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Cellulose

Facility:
Percent Non-Fibrous Material:
95

Note: Joint Compound not present.

Lab No.: 7440936
Client No.: UM0622-A32

Analyst Observation: Green Floor Tile
Client Description: Green 9x9 Floor Tile, With Tarry Black Mastic (Bottom), With Sticky Cream Carped Mastic (Top)

Location: 2nd Floor Classroom 223: At Threshold To Rm, Underneath Blue Short Shag Carpet And Adhered To Concre

Percent Asbestos:
PC 5.7 Chrysotile

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
94.3

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Page 9 of 25



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Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440936(L2) Client No.: UM0622-A32	Analyst Observation: Black Mastic Client Description: Green 9x9 Floor Tile, With Tarry Black Mastic (Bottom), With Sticky Cream Carped Mastic (Top)	Location: 2nd Floor Classroom 223: At Threshold To Rm, Underneath Blue Short Shag Carpet And Adhered To Concre Facility: <u>Percent Non-Fibrous Material:</u> 99
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Cellulose	
Lab No.: 7440936(L3) Client No.: UM0622-A32	Analyst Observation: Off-White Mastic Client Description: Green 9x9 Floor Tile, With Tarry Black Mastic (Bottom), With Sticky Cream Carped Mastic (Top)	Location: 2nd Floor Classroom 223: At Threshold To Rm, Underneath Blue Short Shag Carpet And Adhered To Concre Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440937 Client No.: UM0622-A33	Analyst Observation: Black Mastic Client Description: Tarry Black Floor Tile Mastic	Location: 2nd Floor Classroom 213: Left Of Door To Classroom, Adhering Brown Floor Tile To Concrete. Photo 95 Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440938 Client No.: UM0622-A34	Analyst Observation: Tan Floor Tile Client Description: Brown Floor Tile, With Sticky Cream Carpet Mastic	Location: 2nd Floor Classroom 213: Left Of Door To Classroom, Underneath Blue Short Shag Carpet Adhered To Con Facility: <u>Percent Non-Fibrous Material:</u> 95.2
<u>Percent Asbestos:</u> PC 4.8 Chrysotile	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440938(L2) Client No.: UM0622-A34	Analyst Observation: Off-White/Grey Mastic/Leveling Compound Client Description: Brown Floor Tile, With Sticky Cream Carpet Mastic	Location: 2nd Floor Classroom 213: Left Of Door To Classroom, Underneath Blue Short Shag Carpet Adhered To Con Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
Date Analyzed: 06/10/2022
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

Dated : 6/13/2022 2:21:54

Page 10 of 25



9000 Commerce Parkway Suite B
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Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440939
Client No.: UM0622-A35

Analyst Observation: White Plaster
Client Description: White Plaster Finish Coat

Location: 2nd Floor Classroom 213: Left
Of Door To Classroom, Finish Coat Over
Scratch Coat, Brown Mastic For

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440940
Client No.: UM0622-A36

Analyst Observation: Black Cove Base
Client Description: 6" Flexible Dk Brown Cove Base, Pliable
Brown Cove Base Mastic

Location: 2nd Floor Classroom 213: Left
Of Door To Classroom, Adhered To White
Plaster Finish Coat With Brown

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440940(L2)
Client No.: UM0622-A36

Analyst Observation: Tan Mastic
Client Description: 6" Flexible Dk Brown Cove Base, Pliable
Brown Cove Base Mastic

Location: 2nd Floor Classroom 213: Left
Of Door To Classroom, Adhered To White
Plaster Finish Coat With Brown

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440941
Client No.: UM0622-A37

Analyst Observation: White Plaster
Client Description: White Plaster Finish Coat, Grey Scratch
Coat

Location: 2nd Floor Classroom 213: North
Side Of Classroom, Plaster Finish And
Scratch Coat Over Concrete. Pho

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440942
Client No.: UM0622-A38

Analyst Observation: White Plaster
Client Description: White Plaster Finish Coat, Grey Scratch
Coat

Location: 2nd Floor Classroom 212: South
Corner Of Classroom, Plaster Finish And
Scratch Coat Over Concrete. P

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
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Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

Signature:
Analyst: Ellen Smith

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Page 11 of 25



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 CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

 PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440943
Client No.: UM0622-A39

Analyst Observation: Tan Wood
Client Description: PLYwood With Paint And Nail Hole Patch

Location: 2nd Floor Classroom 212: South
Corner Of Classroom, Painted Wood Trim
Over Plaster. Photo 78 RAF

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
99 Cellulose

Facility:
Percent Non-Fibrous Material:
1

Lab No.: 7440944
Client No.: UM0622-A40

Analyst Observation: Tan Flooring
Client Description: Tan Rubber Flooring, Hard Tan Mastic,
Hard Grey Leveling Compound

Location: 2nd Floor Classroom 212:
Southeast Quadrant Of Classroom At Carpet
Transition Strip To Rubber Floor,

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440944(L2)
Client No.: UM0622-A40

Analyst Observation: Olive Floor Tile
Client Description: Tan Rubber Flooring, Hard Tan Mastic,
Hard Grey Leveling Compound

Location: 2nd Floor Classroom 212:
Southeast Quadrant Of Classroom At Carpet
Transition Strip To Rubber Floor,

Percent Asbestos:
PC 4.6 Chrysotile

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
95.4

Note: Mastic not present.

Lab No.: 7440945
Client No.: UM0622-A41

Analyst Observation: Off-White Mastic
Client Description: Soft Cream Wall Carpet Mastic, Gypsum
Wallboard, White Joint Compound

Location: Stairwell 210: South Quadrant Of
Stairwell, Wall Carpet Adhered With Cream
Adhesive, Over Gypsum Wal

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440945(L2)
Client No.: UM0622-A41

Analyst Observation: White Joint Compound
Client Description: Soft Cream Wall Carpet Mastic, Gypsum
Wallboard, White Joint Compound

Location: Stairwell 210: South Quadrant Of
Stairwell, Wall Carpet Adhered With Cream
Adhesive, Over Gypsum Wal

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Note: Drywall not present.

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
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Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

Signature:
Analyst: Ellen Smith

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Page 12 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440946
Client No.: UM0622-A42

Analyst Observation: White Coating
Client Description: Sandy Texture, White Coating On Concrete

Location: Stairwell 210: South Quadrant Of Stairwell, At Short Wall/Ledge On Concrete. Photo 91 RAF

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440947
Client No.: UM0622-A43

Analyst Observation: White/Grey Coating
Client Description: Sandy Texture, White Coating On Concrete

Location: Corridor 1000 And Corridor 1002: North Wall Adj To Stairwell 210, On Concrete. Photo 119 JHL

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440948
Client No.: UM0622-A44

Analyst Observation: Off-White Mastic
Client Description: Soft Cream Wall Carpet Mastic

Location: Corridor 1002: Northeast Wall Towards Corridor 1000 Adj To MPR 117, Adhering Wall Carpet To Joint Co

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Sample received wet

Lab No.: 7440949
Client No.: UM0622-A45

Analyst Observation: White Joint Compound
Client Description: White Joint Compound

Location: Corridor 1002: Northeast Wall Towards Corridor 1000 Adj To MPR 117, On Metal Nosing Over Gypsum Boar

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Note: Drywall not present.

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
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Frank E. Ehrenfeld, III
Laboratory Director

Signature:
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Page 13 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440950
Client No.: UM0622-A46

Analyst Observation: White Joint Compound
Client Description: White Joint Compound, Gypsum Wallboard

Location: Corridor 1002: Northeast Wall Towards Corridor 1000 Adj To MPR 117, Gypsum Wallboard On Metal Stud.

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Note: Drywall not present.

Lab No.: 7440951
Client No.: UM0622-A47

Analyst Observation: Brown Mastic
Client Description: Hard Brown Wall Tile Mastic And Remnant Fiberglass Wall Tile

Location: 1st Floor Rm 150: North Wall Of Rm 150 Above Suspended Ceiling, Holding Fiberglass Wall Tile To Conc

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440952
Client No.: UM0622-A48

Analyst Observation: Lt Tan Drywall
Client Description: White Joint Compound, Gypsum Wallboard

Location: 1st Floor Rm 150: North Wall Of Rm 150 Above Suspended Ceiling, Gypsum Board Furred Over Concrete. P

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
20 Cellulose

Facility:
Percent Non-Fibrous Material:
80

Lab No.: 7440952(L2)
Client No.: UM0622-A48

Analyst Observation: White Joint Compound
Client Description: White Joint Compound, Gypsum Wallboard

Location: 1st Floor Rm 150: North Wall Of Rm 150 Above Suspended Ceiling, Gypsum Board Furred Over Concrete. P

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440953
Client No.: UM0622-A49

Analyst Observation: Tan Ceiling Tile
Client Description: 2x4 3/8" And Smaller Random Circular Pattern Fissures, Galaxy Pattern With Flat Edge Lay-In Ceiling

Location: 1st Floor Rm 150: Typical Ceiling Tile Throughout Rm On Nailed-In Ceiling Grid. Photo 105 RAF

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
35 Cellulose
20 Fibrous Glass

Facility:
Percent Non-Fibrous Material:
45

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Frank E. Ehrenfeld, III
Laboratory Director

Signature:
Analyst: Ellen Smith

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Page 14 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440954
Client No.: UM0622-A50

Analyst Observation: Off-White Mastic
Client Description: Hard White Fix All, With Sticky Cream Carpet Mastic

Location: 1st Floor Rm 150: At Threshold To Rm, Under Multicolored Short Shag Carpet Over Concrete. Photo 107

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440954(L2)
Client No.: UM0622-A50

Analyst Observation: Off-White Covering Material
Client Description: Hard White Fix All, With Sticky Cream Carpet Mastic

Location: 1st Floor Rm 150: At Threshold To Rm, Under Multicolored Short Shag Carpet Over Concrete. Photo 107

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440955
Client No.: UM0622-A51

Analyst Observation: Tan Floor Tile
Client Description: Lt Brown 9x9 Floor Tile, With Tarry Black Mastic (Bottom), With Sticky Cream Carpet Mastic

Location: 1st Floor Rm 150: South Quadrant Of Rm, Under Multicolored Short Shag Carpet, Adhered To Concrete Wi

Percent Asbestos:
PC 5.3 Chrysotile

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
94.7

Lab No.: 7440955(L2)
Client No.: UM0622-A51

Analyst Observation: Black Mastic
Client Description: Lt Brown 9x9 Floor Tile, With Tarry Black Mastic (Bottom), With Sticky Cream Carpet Mastic

Location: 1st Floor Rm 150: South Quadrant Of Rm, Under Multicolored Short Shag Carpet, Adhered To Concrete Wi

Percent Asbestos:
PC Trace Chrysotile

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440956
Client No.: UM0622-A52

Analyst Observation: White Mastic
Client Description: Soft Cream Wall Carpet Mastic

Location: 1st Floor Vestibule 1001: Northwest Wall Of Vestibule, Adhering Wall Carpet to Joint Compound. Photo

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

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Date Received: 6/9/2022
Date Analyzed: 06/10/2022

Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

Signature:
Analyst: Ellen Smith

Dated : 6/13/2022 2:21:54

Page 15 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

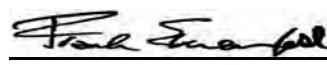
Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440957 Client No.: UM0622-A53	Analyst Observation: White Joint Compound Client Description: White Joint Compound	Location: 1st Floor Vestibule 1001: Northwest Wall Of Vestibule, White Skim Coat Under Wall Carpet Over Marlite Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Note: Drywall not present.		
Lab No.: 7440958 Client No.: UM0622-A54	Analyst Observation: Brown Fiberboard Client Description: Dk Brown Marlite Wallboard, White Joint Compound	Location: 1st Floor Vestibule 1001: Northwest Wall Of Vestibule, Under Wall Carpet And Over Gypsum Wallboard. Facility: Percent Non-Fibrous Material: None Detected
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 100 Cellulose	
Lab No.: 7440958(L2) Client No.: UM0622-A54	Analyst Observation: White Joint Compound Client Description: Dk Brown Marlite Wallboard, White Joint Compound	Location: 1st Floor Vestibule 1001: Northwest Wall Of Vestibule, Under Wall Carpet And Over Gypsum Wallboard. Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440959 Client No.: UM0622-A55	Analyst Observation: Off-White Drywall Client Description: Gypsum Wallboard	Location: 1st Floor Vestibule 1001: Northwest Wall Of Vestibule, Gypsum Board Under Marlite. Photo 125 JHL Facility: Percent Non-Fibrous Material: 90
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 10 Cellulose	
Lab No.: 7440960 Client No.: UM0622-A56	Analyst Observation: Black Mastic Client Description: Tarry Black (Probably Remnant) Flooring Mastic	Location: 1st Floor Vestibule 1001: Southwest Quadrant Of Vestibule, Adhering Multicolored Short Shag Carpet T Facility: Percent Non-Fibrous Material: 98.8
<u>Percent Asbestos:</u> <i>PC 1.2 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
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Analyst: Ellen Smith

Approved By: 
Frank E. Ehrenfeld, III
Laboratory Director

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Page 16 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440961
Client No.: UM0622-A57

Analyst Observation: Tan Cove Base
Client Description: 6" Flexible Beige Cove Base, With
Pliable Tan And Lt Brown Cove Base Mastics

Location: 1st Floor Vestibule 1001:
Southwest Wall Of Vestibule, Adhered To
Marlite Wall Panel With Tan Mastic

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440961(L2)
Client No.: UM0622-A57

Analyst Observation: Off-White Mastic
Client Description: 6" Flexible Beige Cove Base, With
Pliable Tan And Lt Brown Cove Base Mastics

Location: 1st Floor Vestibule 1001:
Southwest Wall Of Vestibule, Adhered To
Marlite Wall Panel With Tan Mastic

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440962
Client No.: UM0622-A58

Analyst Observation: Lt Tan Drywall
Client Description: Gypsum Wallboard

Location: 1st Floor Vestibule 1001:
Southwest Wall Of Vestibule, Gypsum
Wallboard. Photo 132 JHL

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
10 Cellulose

Facility:
Percent Non-Fibrous Material:
90

Note: Joint Compound not present.

Lab No.: 7440962(L2)
Client No.: UM0622-A58

Analyst Observation: Brown Mastic
Client Description: Gypsum Wallboard

Location: 1st Floor Vestibule 1001:
Southwest Wall Of Vestibule, Gypsum
Wallboard. Photo 132 JHL

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Facility:
Percent Non-Fibrous Material:
100

Lab No.: 7440963
Client No.: UM0622-A59

Analyst Observation: Tan Spray-On Fireproofing
Client Description: Fluffy Grey Spray-On Fireproofing

Location: 1st Floor Library 141: Center Of
Rm Near Structural Column Above
Suspended Ceiling On Steel Beam. Ph

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
13 Cellulose
3 Fibrous Glass

Facility:
Percent Non-Fibrous Material:
84

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
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Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

Signature:
Analyst: Ellen Smith

Dated : 6/13/2022 2:21:54

Page 17 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440964 Client No.: UM0622-A60	Analyst Observation: Brown Mastic Client Description: Hard Dk Brown Remnant Wall Tile Mastic, With Remnant Fiberglass From Wall Tile	Location: 1st Floor Library 141: Center Of Rm Near Structural Column Above Suspended Ceiling On Unfinished Gyp Facility: Percent Non-Fibrous Material: 99
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Fibrous Glass	
Lab No.: 7440965 Client No.: UM0622-A61	Analyst Observation: Tan Spray-On Fireproofing Client Description: Fluffy Grey Spray-On Fireproofing	Location: 1st Floor Library 141: Center Of Rm Near Structural Column Above Suspended Ceiling On Wood Framing. Facility: Percent Non-Fibrous Material: 83
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 13 Cellulose 4 Fibrous Glass	
Lab No.: 7440966 Client No.: UM0622-A62	Analyst Observation: Lt Tan Drywall Client Description: Gypsum Wallboard, Older	Location: 1st Floor Library 141: Center Of Rm Near Structural Column Above Suspended Ceiling, Remnant Unfinish Facility: Percent Non-Fibrous Material: 80
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 20 Cellulose	
<u>Note: Joint Compound not present.</u>		
Lab No.: 7440967 Client No.: UM0622-A63	Analyst Observation: Tan Cove Base Client Description: 6" Flexible Beige Cove Base, With Pliable Cream Cove Base Mastic, With Tarry Black Carpet Mastic, Wi	Location: 1st Floor Library 141: Center Of Rm On South Side Of Structural Column, Under Wall Carpet On Gypsum Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440967(L2) Client No.: UM0622-A63	Analyst Observation: Brown Mastic Client Description: 6" Flexible Beige Cove Base, With Pliable Cream Cove Base Mastic, With Tarry Black Carpet Mastic, Wi	Location: 1st Floor Library 141: Center Of Rm On South Side Of Structural Column, Under Wall Carpet On Gypsum Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
Date Analyzed: 06/10/2022
Signature:
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Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Page 18 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440967(L3) Client No.: UM0622-A63	Analyst Observation: Off-White Mastic Client Description: 6" Flexible Beige Cove Base, With Pliable Cream Cove Base Mastic, With Tarry Black Carpet Mastic, Wi	Location: 1st Floor Library 141: Center Of Rm On South Side Of Structural Column, Under Wall Carpet On Gypsum
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7440967(L4) Client No.: UM0622-A63	Analyst Observation: Off-White Joint Compound Client Description: 6" Flexible Beige Cove Base, With Pliable Cream Cove Base Mastic, With Tarry Black Carpet Mastic, Wi	Location: 1st Floor Library 141: Center Of Rm On South Side Of Structural Column, Under Wall Carpet On Gypsum
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7440968 Client No.: UM0622-A64	Analyst Observation: White Joint Compound Client Description: White Joint Compound, Gypsum Wallboard	Location: 1st Floor Library 141: Center Of Rm On South Side Of Structural Column, Under Wall Carpet. Photo 120
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Facility: <u>Percent Non-Fibrous Material:</u> 100
Note: Drywall not present.		
Lab No.: 7440969 Client No.: UM0622-A65	Analyst Observation: Grey Leveling Compound Client Description: Hard Grey Leveling Compound, Hard Brown Carpet Mastic, With Remnant Tarry Black Mastic	Location: 1st Floor Library 141: Center Of Rm On South Side Of Structural Column, Under Blue Short Shag Carpet
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7440969(L2) Client No.: UM0622-A65	Analyst Observation: Tan Mastic Client Description: Hard Grey Leveling Compound, Hard Brown Carpet Mastic, With Remnant Tarry Black Mastic	Location: 1st Floor Library 141: Center Of Rm On South Side Of Structural Column, Under Blue Short Shag Carpet
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Facility: <u>Percent Non-Fibrous Material:</u> 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
Date Analyzed: 06/10/2022
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

Dated : 6/13/2022 2:21:54

Page 19 of 25



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440969(L3) Client No.: UM0622-A65	Analyst Observation: Black Mastic Client Description: Hard Grey Leveling Compound, Hard Brown Carpet Mastic, With Remnant Tarry Black Mastic	Location: 1st Floor Library 141: Center Of Rm On South Side Of Structural Column, Under Blue Short Shag Carpet Facility: Percent Non-Fibrous Material: 100
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: None Detected	
Lab No.: 7440970 Client No.: UM0622-A66	Analyst Observation: Off-White Joint Compound Client Description: White Joint Compound; Gypsum Wallboard	Location: 1st Floor Corridor 1100: Adj To Classroom 154, Above Suspended Ceiling, Gypsum Wallboard. Photo 123 Facility: Percent Non-Fibrous Material: 98.3
Percent Asbestos: PC 1.7 Chrysotile	Percent Non-Asbestos Fibrous Material: None Detected	
<i>Note: Insufficient drywall provided for analysis.</i>		
Lab No.: 7440971 Client No.: UM0622-A67	Analyst Observation: Green Floor Tile Client Description: Greenish Grey 9x9 Floor Tile, With Tarry Black Mastic	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall, Underneath Beige Birch Bark Floor T Facility: Percent Non-Fibrous Material: 99.75
Percent Asbestos: PC 0.25 Chrysotile	Percent Non-Asbestos Fibrous Material: None Detected	
Lab No.: 7440971(L2) Client No.: UM0622-A67	Analyst Observation: Black Mastic Client Description: Greenish Grey 9x9 Floor Tile, With Tarry Black Mastic	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall, Underneath Beige Birch Bark Floor T Facility: Percent Non-Fibrous Material: 98.8
Percent Asbestos: PC 1.2 Chrysotile	Percent Non-Asbestos Fibrous Material: None Detected	
Lab No.: 7440972 Client No.: UM0622-A68	Analyst Observation: Lt Tan Floor Tile Client Description: Beige 12x12 Birch Bark Floor Tile, With Hard Tan Mastic	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall, Adhered To 9x9 Green Floor Tile Wit Facility: Percent Non-Fibrous Material: 100
Percent Asbestos: <i>None Detected</i>	Percent Non-Asbestos Fibrous Material: None Detected	

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
Date Analyzed: 06/10/2022
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

Dated : 6/13/2022 2:21:54

Page 20 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440972(L2) Client No.: UM0622-A68	Analyst Observation: Tan Mastic Client Description: Beige 12x12 Birch Bard Floor Tile, With Hard Tan Mastic	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall, Adhered To 9x9 Green Floor Tile Wit Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440973 Client No.: UM0622-A69	Analyst Observation: White Joint Compound Client Description: White Joint Compound	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall, Behind Plywood On Gypsum Wallboard. Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
<i>Note: Drywall not present.</i>		
Lab No.: 7440974 Client No.: UM0622-A70	Analyst Observation: Lt Tan Drywall Client Description: Gypsum Wallboard	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall. Gypsum Wallboard Behind Plywood. Ph Facility: Percent Non-Fibrous Material: 90
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 10 Cellulose	
Lab No.: 7440974(L2) Client No.: UM0622-A70	Analyst Observation: White Joint Compound Client Description: Gypsum Wallboard	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall. Gypsum Wallboard Behind Plywood. Ph Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440975 Client No.: UM0622-A71	Analyst Observation: Tan Cove Base Client Description: 6" Flexible Beige Cove Base, With Pliable Cream Cove Base Mastic	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall, Cove Base Adhered To Marlite Wall P Facility: Percent Non-Fibrous Material: 100
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
Date Analyzed: 06/10/2022
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

Dated : 6/13/2022 2:21:54

Page 21 of 25



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 6/10/2022 Report No.: 662608 - PLM Project: ASD Ursa Major Project Analysis Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7440975(L2) Client No.: UM0622-A71	Analyst Observation: Lt Tan Mastic Client Description: 6" Flexible Beige Cove Base, With Pliable Cream Cove Base Mastic	Location: 1st Floor Corridor 1100: Adj To Rm 141 At Southeast Jog In Wall, Cove Base Adhered To Marlite Wall P Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440976 Client No.: UM0622-A72	Analyst Observation: Tan Flooring Client Description: Brown Rubber Flooring, With Hard Brown Mastic	Location: 1st Floor Classroom 157: North Corner Of Rm At Transiting From Carpet To Rubber Floor, Rubber Floor Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440976(L2) Client No.: UM0622-A72	Analyst Observation: Tan Mastic Client Description: Brown Rubber Flooring, With Hard Brown Mastic	Location: 1st Floor Classroom 157: North Corner Of Rm At Transiting From Carpet To Rubber Floor, Rubber Floor Facility: <u>Percent Non-Fibrous Material:</u> 100
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440977 Client No.: UM0622-A73	Analyst Observation: Green Floor Tile Client Description: Green 9x9 Floor Tile, With Tarry Black Mastic	Location: 1st Floor Classroom 157: North Corner Of Rm At Transiting From Carpet To Rubber Floor, Floor Tile Ad Facility: <u>Percent Non-Fibrous Material:</u> 93.2
<u>Percent Asbestos:</u> PC 6.8 Chrysotile	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	
Lab No.: 7440977(L2) Client No.: UM0622-A73	Analyst Observation: Black Mastic Client Description: Green 9x9 Floor Tile, With Tarry Black Mastic	Location: 1st Floor Classroom 157: North Corner Of Rm At Transiting From Carpet To Rubber Floor, Floor Tile Ad Facility: <u>Percent Non-Fibrous Material:</u> 99
<u>Percent Asbestos:</u> None Detected	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Cellulose	

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 6/9/2022
Date Analyzed: 06/10/2022
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

Dated : 6/13/2022 2:21:54

Page 22 of 25



9000 Commerce Parkway Suite B
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Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

Appendix to Analytical Report

Customer Contact: Cali Swatowski

Method: 40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, USEPA 600, R93-116 and NYSDOH ELAP 198.1 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com

iATL Office Manager: wchampion@iatl.com

iATL Account Representative: Semih Kocahasan

Sample Login Notes: See Batch Sheet Attached

Sample Matrix: Bulk Building Materials

Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB) See additional information at the end of this appendix.



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 6/10/2022
Report No.: 662608 - PLM
Project: ASD Ursa Major Project Analysis
Project No.: 7724-01

Client: EHS511

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.

- 1) Note: No mastic provided for analysis.
- 2) Note: Insufficient mastic provided for analysis.
- 3) Note: Insufficient material provided for analysis.
- 4) Note: Insufficient sample provided for QC reanalysis.
- 5) Note: Different material than indicated on Sample Log / Description.
- 6) Note: Sample not submitted.
- 7) Note: Attached to asbestos containing material.
- 8) Note: Received wet.
- 9) Note: Possible surface contamination.
- 10) Note: Not building material. 1% threshold may not apply.
- 11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
- 12) Note: Asbestos detected but not quantifiable.
- 13) Note: Multiple identical samples submitted, only one analyzed.
- 14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
- 15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
- 16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gänge, homogeneous exfoliated books of mica, or mixed mineral composites). Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: "ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite."

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite (https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf)

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

- 1) **Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% for most samples.



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 CERTIFICATE OF ANALYSIS

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 11901 Business Blvd., Ste 208
 Eagle River AK 99577

Report Date: 6/10/2022
 Report No.: 662608 - PLM
 Project: ASD Ursa Major Project Analysis
 Project No.: 7724-01

Client: EHS511

2) **Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3) **Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4) **Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5) **Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
 *With advance notice and confirmation by the laboratory.

**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

New York State Department of Health requires that samples originating from NYS that they categorize as Non-friable Organically Bound materials can only be confirmed as None Detected for asbestos by method 198.4. See the table below for a list of those materials. (ENVIRONMENTAL LABORATORY APPROVAL PROGRAM CERTIFICATION MANUAL - ITEM No. 198.1, Revision Date 5/6/16)

*Asphalt Shingles, Caulking, Ceiling Tiles with Cellulose, Duct Wrap, Glazing, Mastic, Paint Chips, Resilient Floor Tiles, Rubberized Asbestos Gaskets, Siding Shingles, Vinyl Asbestos Tile, NOB materials (other than SM-V) with <10% vermiculite, Any material (Friable or NOB other than SM-V) with >10% vermiculite.

Statistically derived uncertainty with any measure should be taken into consideration when reviewing and interpreting all reported data and results. A more comprehensive listing of accuracy, precision, and uncertainty as it impacts this method is available upon request.

EHS ALASKA
INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577-7701

(907) 694-1383 phone • (907) 694-1382 f

e-mail • ehsak@ehs-alaska.com

L22 1742

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA				Page <u>1</u> of <u>1</u>
FIELD COLLECTION DATE: <u>07/20/22</u>		JOB #: <u>7724</u>		BULK ANALYSIS REQUESTED: (circle) <u>PLM</u> / TEM BULK / LEAD TCLP / LEAD PPM
PROJECT NAME: <u>SEISMIC UPGRADES</u>		MATERIAL TYPE: (Circle) <u>ASBESTOS</u>		TOTAL LEAD QUANTITIES: <u>4</u>
FACILITY: <u>URSA MAJOR ELEMENTARY SCHOOL</u>		DISPOSAL: <u>NORMAL</u>		TURNAROUND: <u>ASAP</u>
SPECIAL INSTRUCTIONS: <u>CALL 907-694-1383 BOB OR JOHN w/ RESULTS</u>				
COLLECTED BY (signature) <u>[Signature]</u> PRINTED NAME <u>JOHN H. LAMONT</u> CERT# <u>20220011</u> / T-30203-41066 SHIPPING METHOD <u>SELF</u> COURIER (signature) <u>[Signature]</u> DATE/TIME <u>07/20/22</u>		SELECTED LABORATORY <u>Alaska</u> SAMPLES ACCEPTED BY <u>Michael Arnes</u> DATE/TIME <u>7/20/22 12:45 PM</u> ANALYST'S SIGNATURE _____ DATE _____		
		COMMENTS: <u>0% Asbestos</u>		
SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION / COMMENTS (INCLUDING PHOTO / XREF)	% RESULTS	
1. <u>A01</u> MATERIAL CONDITION: <u>GOOD</u> FAIR POOR	<u>CRISPY BLACK MASTIC</u> WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>UME: 2nd FLOOR STAIRWELL @ ORIGINAL WALL BTWN CONC. & W.B.</u>	<u>None Detected</u>	
2. <u>A02</u> MATERIAL CONDITION: <u>GOOD</u> FAIR POOR	<u>TAR PAPER BLACK</u> WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>UME: 2nd FLOOR STAIRWELL @ OG WALL BTWN LATHE & CONC.</u>	<u>None Detected</u>	
3. <u>A03</u> MATERIAL CONDITION: <u>GOOD</u> FAIR POOR	<u>TAR @ SHIM BLACK</u> WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>UME: 2nd FLOOR STAIRWELL @ OG WALL BTWN WOOD STUD & CONC.</u>	<u>5% Chrysotile</u>	
4. <u>A04</u> MATERIAL CONDITION: <u>GOOD</u> FAIR POOR	<u>BLACK TAR @ CONC.</u> WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>UME: 2nd FLOOR STAIRWELL @ OG WALL DIRECTLY ON CONC.</u>	<u>5% Chrysotile</u>	
5. _____ MATERIAL CONDITION: <u>GOOD</u> FAIR POOR	_____ WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	_____	_____	
6. _____ MATERIAL CONDITION: <u>GOOD</u> FAIR POOR	_____ WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	_____	_____	
7. _____ MATERIAL CONDITION: <u>GOOD</u> FAIR POOR	_____ WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	_____	_____	
8. _____ MATERIAL CONDITION: <u>GOOD</u> FAIR POOR	_____ WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	_____	_____	

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA

HHS-0408



383 Industrial Way, Suite 300
Anchorage, AK 99501 (907) 258-8661



Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

Atlas Project #: L22-1742

Client Project #: 7724

Report #: 699847

Report By: A. Streveler

Report Date: 07/20/2022

Client: EHS Alaska, Inc.
11901 Business Blvd., Ste 208
Eagle River, AK 99577

Billing Number: 24606

Collected By: Client
Collection Date: 07/20/2022
Analysis By: A. Streveler
Analysis Date: 07/20/2022
Received By: M. Auza
Received Date: 07/20/2022

TAT: Rush

Sample Count: 4 Layer Count: 4

Project Name/Location: Seismic Upgrades - Ursa Major Elementary School

Client ID #	ATLAS ID#	Location:	Homogeneous	Material	Color	Layer
A01	AB22-3314	UME: 2nd Floor Stairwell @ Original Wall Btwn Conc. GWB	Yes	Mastic	Black	1 of 1

Asbestos: None Detected

Other Fibrous: None Detected

Non-Fibrous Materials: 100%

Client ID #	ATLAS ID#	Location:	Homogeneous	Material	Color	Layer
A02	AB22-3315	UME: 2nd Floor Stairwell @ OG Wall Btwn Lathe & Conc.	Yes	Tar Paper	Black	1 of 1

Asbestos: None Detected

Other Fibrous Material	Fibrous %
Cellulose	40%

Other Fibrous Materials: 40%

Non-Fibrous Materials: 60%

Client ID #	ATLAS ID#	Location:	Homogeneous	Material	Color	Layer
A03	AB22-3316	UME: 2nd Floor Stairwell @ OG Wall Btwn Wood Stud & Conc	Yes	Tar	Black	1 of 1

Asbestos Type	Asbestos %
Chrysotile	5%

% Asbestos: 5%

Other Fibrous: None Detected

Non-Fibrous Materials: 95%

Client ID #	ATLAS ID#	Location:	Homogeneous	Material	Color	Layer
A04	AB22-3317	UME: 2nd Floor Stairwell @ OG Wall Directly on Conc.	Yes	Tar	Black	1 of 1

Asbestos Type	Asbestos %
Chrysotile	5%

% Asbestos: 5%

Other Fibrous: None Detected

Non-Fibrous Materials: 95%



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Anchorage, AK 99501 (907) 258-8661



Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

Atlas Project #: L22-1742

Client Project #: 7724

Report #: 699847

Report By: A. Streveler

Report Date: 07/20/2022

Ashley Streveler, Laboratory Supervisor

07/20/2022

Date

Amanda Lang, Laboratory Technical Manager

07/20/2022

Date

Asbestos Containing Material (ACM) Definition: >1% asbestos by weight is considered an ACM.
TRACE = Less than 1% Asbestos by weight.

The Atlas Anchorage Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code: 200124-0) and in accordance with the recognized International Standard ISO/IEC 17025:2017. Analysis performed by: EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples or EPA Method 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials at the discretion of the client or Atlas.

Unless a point-counting method is requested and noted for the sample, all quantities reported are based on calibrated visual estimation by Polarized Light Microscopy (PLM). Non-homogenous samples will be layered for testing unless stop-positive is requested by the client or otherwise stated in the chain of custody (COC). Asbestos results are reliable within 2 significant figures.

Analysis Report generated by Atlas relates only to items tested and submitted on the COC and must not be used by clients to claim product endorsement by the National Voluntary Laboratory Accreditation Program (NVLAP) or any agency of the U.S Government. This report shall not be reproduced, except in full, without written approval of the laboratory. Conditions of samples upon receipt were acceptable unless otherwise stated.

Liability Notice: Atlas and its personnel shall not be liable for any misinformation provided to us by the client regarding these samples.
Confidentiality Notice: The document(s) contained herein are confidential and privileged information, intended for the exclusive use of the individual or entity named above.

 383 Industrial Way, Suite 300, Anchorage, Alaska 99501 Phone (907) 258-8661 www.oneatlas.com	PROJECT NAME <u>Ursa Major ES</u>	
	LOCATION <u>JBER, AK</u>	PROJECT NO. <u>40753</u>
	CLIENT <u>Satori</u>	DATE <u>7/26/22</u>
	CLIENT PROJECT# <u>1028301423</u>	
	SHEET NO. <u>1</u> OF <u>1</u>	

ANALYSIS REQUESTED (circle) PCM <u>PLM</u> TEM LEAD	TURNAROUND REQUESTED Rush	NO. OF SAMPLES 1	COLLECTION DATE: 7/26/22
RELINQUISHED BY: Emily VanNortwick	DATE / TIME 7/26/22	SAMPLES RECEIVED BY <i>af</i>	DATE / TIME 7/26/22
SHIPPING METHOD Hand Delivery	COURIER (signature) <i>[Signature]</i>	SAMPLES RECEIVED BY	DATE / TIME

Sample taken from Ursa Major ES Room #223.

[illegible]



383 Industrial Way, Suite 300
Anchorage, AK 99501 (907) 258-8661
anchorage@oneatlas.com



Lab Code 200124-0

PLM BULK SAMPLE ANALYSIS FOR ASBESTOS

Lab Login #: 0221791
Atlas Job #: 1423
Client Project #: 40753

Report #: 0221791
Report By: A. Lang
Report Date: 07/26/2022

Client: Satori Group, Inc.
1310 E. 66th Avenue, Ste 2
Anchorage AK 99518
Billing Number: 1001157

Collected By: E. VanNortwick
Collection Date: 07/26/2022
Analyzed By: A. Lang
Date Analyzed: 07/26/2022
Received By: A. Lang
Received Date: 07/26/2022

TAT: RUSH Sample Count: 1 Layer Count: 1
Project Name/ Location: Ursa Major ES

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Non-Asbestos Components (%)	Asbestos Type (%)
0221791-001	Room #223	LAYER 1		
1423-01	Black Mastic, Black, Homogeneous, Non-Fibrous	100%	Non-Fibrous Material 100%	None Detected 0%
			Total % Non-Asbestos: 100.0%	Total % Asbestos: No Asbestos Detected

Analyzed by: Amanda Lang 07/26/2022
Amanda Lang Date

Approved Signatory: Ashley Stever 07/26/2022
Ashley Stever, Laboratory Supervisor Date

Asbestos Containing Material (ACM) Definition: >1% asbestos by weight is considered an ACM.

TRACE = Less than 1% Asbestos by weight.

The Atlas Anchorage Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code: 200124-0) and in accordance with the recognized International Standard ISO/IEC 10725:2017. Analysis performed by: EPA-40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples or EPA Method 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials at the discretion of the client or Atlas.

Unless a point-counting method is requested and noted for the sample, all quantities reported are based on calibrated visual estimation by Polarized Light Microscopy (PLM). Non-homogenous samples will be layered for testing unless stop-positive is requested by the client or otherwise stated in the chain of custody (COC). Asbestos results are reliable within 2 significant figures.

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Liability Notice: Atlas and its personnel shall not be liable for any misinformation provided to us by the client regarding these samples.

Confidentiality Notice: The document(s) contained herein are confidential and privileged information, intended for the exclusive use of the individual or entity named above.

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EHS-ALASKA, INC.
EHS ALASKA
 INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577

(907) 694-1383 • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

PROJECT NO: 7724-01	PROJECT NAME: ASD Ursa Major Project Analysis	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 07/29/22
-------------------------------	---	--	-------------------------------------

CHAIN OF CUSTODY RECORD

ANALYSIS REQUESTED:	☒ PLM BULK ☐ LEAD DUST ☐ TEM MICROVAC DUST (ASTM 5756)	☐ PLM DUST ☐ LEAD TCLP ☐ LEAD PPM	☐ TEM BULK ☐ LEAD PPM	TYPE: ☒ ASBESTOS ☐ LEAD	TURNAROUND: 8 hour rush	DISPOSAL: NORMAL	QUANTITY: 7
---------------------	--	--	--	--	----------------------------	---------------------	----------------

COLLECTED BY (signature) Robert French PRINTED NAME 1564 88IMP 0028 CERT# / AHERA# FedEx SHIPPING METHOD FedEx: 7775 3159 8440 COURIER (signature) DATE/TIME 07-30-22 1100 am	IATL SELECTED LABORATORY RECEIVED SAMPLES ACCEPTED BY DATE/TIME 8-1-22 ANALYST'S SIGNATURE DATE 8-1-22	SPECIAL INSTRUCTIONS / COMMENTS: LAB: RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA, INC. See sample location drawing for more detailed explanation of exact locations. <i>0% asbestos</i>
--	---	--

FIELD SURVEY DATA

EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
UM72922-A01 7471913	Red and light tan joint filler, plus plaster scratch coat	Room 150, East wall, lower left hand side at crack. Photos 8 & 9	None Detected Three layers
UM72922-A02 7471920	Red and light tan joint filler	Room 150, East wall, upper right hand side at crack. Photos 10, 13 & 14	None Detected Two layers
UM72922-A03 7471921	Light tan joint filler	Room 179, North wall, middle of wall. Photo 20	None Detected
UM72922-A04 7471922	Greenish tan mastic, likely to wood furring strip	Room 179, North wall, middle of wall. Photos 21 & 22	None Detected
UM72922-A05 7471923	Black tarry waterproofing on concrete	Room 179, North wall, left side of wall. Photo 23	6.7% chrysotile
UM72922-A06 7471924	Possibly hot mop tar, adhering cork to concrete, more shiny	Room 236, South wall to the right of the ductwork. Photo 36	None Detected
UM72922-A07 7471925	Possibly waterproofing tar, dull finish	Room 236, South wall to the right of the ductwork. Photos 37 & 38	10% chrysotile
END	**END**	**END**	



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated 11901 Business Blvd., Ste 208 Eagle River AK 99577	Report Date: 8/1/2022 Report No.: 666051 - PLM Project: ASD Ursa Major Project Analysis; Ursa Major ES Project No.: 7724-01
Client: EHS511	

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7471919 Client No.: UM72922-A01 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Red Sealant Client Description: Red And Light Tan Joint Filler, Plus Plaster Scratch Coat <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 150 East Wall Lower Left Hand Side At Crack Photos 8 And 9 Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7471919(L2) Client No.: UM72922-A01 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Tan Sealant Client Description: Red And Light Tan Joint Filler, Plus Plaster Scratch Coat <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 150 East Wall Lower Left Hand Side At Crack Photos 8 And 9 Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7471919(L3) Client No.: UM72922-A01 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Grey Cementitious Client Description: Red And Light Tan Joint Filler, Plus Plaster Scratch Coat <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 150 East Wall Lower Left Hand Side At Crack Photos 8 And 9 Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7471920 Client No.: UM72922-A02 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Red/Tan Sealant Client Description: Red And Light Tan Joint Filler <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 150 East Wall Upper Right Hand Side At Crack Photos 10, 13 And 14 Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7471920(L2) Client No.: UM72922-A02 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: White Texture Client Description: Red And Light Tan Joint Filler <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 150 East Wall Upper Right Hand Side At Crack Photos 10, 13 And 14 Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7471921 Client No.: UM72922-A03 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Tan Sealant Client Description: Light Tan Joint Filler <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 179 North Wall Middle Of Wall Photo 20 Facility: <u>Percent Non-Fibrous Material:</u> 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 8/1/2022
Date Analyzed: 08/01/2022
Signature:
Analyst: Rebecca Hargrove

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

Dated : 8/1/2022 2:21:52

Page 1 of 5



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Telephone: 856-231-9449
Email: customerservice@iatl.com

 CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 8/1/2022
Report No.: 666051 - PLM
Project: ASD Ursa Major Project Analysis; Ursa Major ES
Project No.: 7724-01

Client: EHS511

 PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7471922 Client No.: UM72922-A04 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Tan Mastic Client Description: Greenish Tan Mastic, Likely To Wood Furring Strip <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 179 North Wall Middle Of Wall Photos 21 And 22 Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7471923 Client No.: UM72922-A05 <u>Percent Asbestos:</u> <i>PC 6.7 Chrysotile</i>	Analyst Observation: Black Tar Client Description: Black Tarry Waterproofing On Concrete <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 179 North Wall Left Side Of Wall Photo 23 Facility: <u>Percent Non-Fibrous Material:</u> 93.3
Lab No.: 7471924 Client No.: UM72922-A06 <u>Percent Asbestos:</u> <i>None Detected</i>	Analyst Observation: Black Tar Client Description: Possibly Hot Mop Tar, Adhering Cork To Concrete, More Shiny <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	Location: Room 236 South Wall To The Right Of The Ductwork Photo 36 Facility: <u>Percent Non-Fibrous Material:</u> 100
Lab No.: 7471925 Client No.: UM72922-A07 <u>Percent Asbestos:</u> <i>10 Chrysotile</i>	Analyst Observation: Black Tar Client Description: Possibly Waterproofing Tar, Dull Finish <u>Percent Non-Asbestos Fibrous Material:</u> 2 Cellulose	Location: Room 236 South Wall To The Right Of The Ductwork Photos 37 And 38 Facility: <u>Percent Non-Fibrous Material:</u> 88

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 8/1/2022

Date Analyzed: 08/01/2022

Signature:

Analyst:

Rebecca Hargrove

Rebecca Hargrove

Approved By:

Frank E. Ehrenfeld, III

Frank E. Ehrenfeld, III

Laboratory Director

Dated : 8/1/2022 2:21:52

Page 2 of 5



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 CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 8/1/2022
Report No.: 666051 - PLM
Project: ASD Ursa Major Project Analysis; Ursa
Major ES
Project No.: 7724-01

Client: EHS511

Appendix to Analytical Report

Customer Contact: Cali Swatowski

Method: 40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, USEPA 600, R93-116 and NYSDOH ELAP 198.1 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com

iATL Office Manager: wchampion@iatl.com

iATL Account Representative: Semih Kocahasan

Sample Login Notes: See Batch Sheet Attached

Sample Matrix: Bulk Building Materials

Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB) See additional information at the end of this appendix.



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 CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Ste 208
Eagle River AK 99577

Report Date: 8/1/2022
Report No.: 666051 - PLM
Project: ASD Ursa Major Project Analysis; Ursa Major ES
Project No.: 7724-01

Client: EHS511

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.

- 1) Note: No mastic provided for analysis.
- 2) Note: Insufficient mastic provided for analysis.
- 3) Note: Insufficient material provided for analysis.
- 4) Note: Insufficient sample provided for QC reanalysis.
- 5) Note: Different material than indicated on Sample Log / Description.
- 6) Note: Sample not submitted.
- 7) Note: Attached to asbestos containing material.
- 8) Note: Received wet.
- 9) Note: Possible surface contamination.
- 10) Note: Not building material. 1% threshold may not apply.
- 11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
- 12) Note: Asbestos detected but not quantifiable.
- 13) Note: Multiple identical samples submitted, only one analyzed.
- 14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
- 15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
- 16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gänge, homogeneous exfoliated books of mica, or mixed mineral composites). Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: "ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite."

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite (https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf)

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

- 1) **Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% for most samples.



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 CERTIFICATE OF ANALYSIS

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 11901 Business Blvd., Ste 208
 Eagle River AK 99577

Report Date: 8/1/2022
 Report No.: 666051 - PLM
 Project: ASD Ursa Major Project Analysis; Ursa
 Major ES
 Project No.: 7724-01

Client: EHS511

2) **Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3) **Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4) **Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5) **Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
 *With advance notice and confirmation by the laboratory.

**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

New York State Department of Health requires that samples originating from NYS that they categorize as Non-friable Organically Bound materials can only be confirmed as None Detected for asbestos by method 198.4. See the table below for a list of those materials. (ENVIRONMENTAL LABORATORY APPROVAL PROGRAM CERTIFICATION MANUAL - ITEM No. 198.1, Revision Date 5/6/16)

*Asphalt Shingles, Caulking, Ceiling Tiles with Cellulose, Duct Wrap, Glazing, Mastic, Paint Chips, Resilient Floor Tiles, Rubberized Asbestos Gaskets, Siding Shingles, Vinyl Asbestos Tile, NOB materials (other than SM-V) with <10% vermiculite, Any material (Friable or NOB other than SM-V) with >10% vermiculite.

Statistically derived uncertainty with any measure should be taken into consideration when reviewing and interpreting all reported data and results. A more comprehensive listing of accuracy, precision, and uncertainty as it impacts this method is available upon request.

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EHS ALASKA
INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577

(907) 694-1383 • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

PROJECT NO: 7297-01	PROJECT NAME: ASD Ursa Major ES Exterior Stair Replacement	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 04/29/2014
-------------------------------	--	--	---------------------------------------

CHAIN OF CUSTODY RECORD							
ANALYSIS REQUESTED:	☒ PLM BULK ☐ LEAD DUST ☐ TEM MICROVAC DUST (ASTM 5756)	☐ PLM DUST ☐ LEAD TCLP ☐ TEM BULK ☐ LEAD PPM	TYPE: ☒ ASBESTOS ☐ LEAD	TURNAROUND: 1 DAY	DISPOSAL: NORMAL	QUANTITY: 04	
COLLECTED BY (signature) Christopher Ottosen PRINTED NAME 20110972/TB124-11-146 CERT# / AHERA# Fed Ex SHIPPING METHOD 7987 09/14 7175 COURIER (signature) 4-30-14 12:30pm DATE/TIME				SPECIAL INSTRUCTIONS / COMMENTS: LAB: RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA, INC. See sample location drawing for more detailed explanation of exact locations. E-MAILED Per 5-2 Red 5-2-14			
SELECTED LABORATORY MAY - 1 2014 SAMPLES ACCEPTED BY IATL - By [Signature] ANALYST'S SIGNATURE 5/1/14 DATE							

FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS FOR EHS-ALASKA USE ONLY
UM0414-A01 5303232	Grey gasket for light fixture	From light fixture at bottom of stairs – Photo 29	None Detected
UM0414-A02 5303233	Brown mastic for cement board	From top of exterior 2 nd floor wall at damaged area adjacent to stairs – Photo 30	None Detected
UM0414-A03 5303234	Black sealant for missing trim piece	From top of exterior 2 nd floor wall at damaged area adjacent to stairs – Photo 31	None Detected
UM0414-A04 5303235	Grey cement board	From top of exterior 2 nd floor wall at damaged area adjacent to stairs – Photo 32	30% Chrysotile
--END--	--END--	--END--	



CERTIFICATE OF ANALYSIS

9000 Commerce Parkway, Ste B
Mount Laurel, NJ 08054
Toll Free 877-428-4285
Local: 856-231-9449
Fax: 856-231-9818

Client:	EHS Alaska Incorporated	Report Date:	5/1/2014
	11901 Business Blvd., Ste 208	Report No:	332922
	Eagle River AK 99577-7701	Project:	ASD Ursa Major ES
		Project No.:	7297-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	5303232	Description / Location:	Grey Foam Gasket	
Client No.:	UM0414-A01		From Light Fixture At Bottom Of Stairs	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.:	5303233	Description / Location:	Lt.Brown Mastic; From Top Of Exterior	
Client No.:	UM0414-A02		2nd FlrWallAtDamagedAreaAdj.ToStairs	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.:	5303234	Description / Location:	Grey Caulk; From Top Of Exterior	
Client No.:	UM0414-A03		2nd FlrWallAtDamagedAreaAdj.ToStairs	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.:	5303235	Description / Location:	Grey Transite; From Top Of Exterior	
Client No.:	UM0414-A04		2nd FlrWallAtDamagedAreaAdj.ToStairs	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
30	Chrysotile	None Detected	None Detected	70

Accreditation **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: L. Solebello

Approved By:

Date: 5/1/2014

Frank E. Ehrenfeld, III
Laboratory Director


EHS ALASKA
INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577-7701

(907) 694-1383 • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA			
FIELD COLLECTION DATE: 11-05-04		JOB #: 6141-01	MATERIAL TYPE ASBESTOS
PROJECT NAME: Ursa Major Window Replacement		BULK ANALYSIS REQUESTED:	TOTAL QUANTITIES: 25
FACILITY: Ursa Major Elementary School		DISPOSAL: Normal	TURNAROUND: 3-5 days
SPECIAL INSTRUCTIONS:			
COLLECTED BY (signature) David DeMay PRINTED NAME T-9144-7551 CERT# AHERA# Federal Express SHIPPING METHOD 7921 3193 4380 COURIER (signature) 11-8-04 DATE/TIME 12:00pm		SELECTED LABORATORY SAMPLES ACCEPTED BY DATE/TIME ANALYST'S SIGNATURE DATE 11-16-04	
COMMENTS: Analyze the following groups to the first positive: A2, A9, A11, A19, A20 A3, A8, A10, A18, A21 A4, A5 A6, A12, A14, A16 A7, A13, A15, A17 NOV - 9 2011 ND = None Detected 90 Asbestos			
SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
UM1104-A1 2113743	Black water proofing below window sill on concrete	Room 220, below window sill 11:36 AM	10% Chrysotile
UM1104-A2 2113744	Brown mastic under type 1 ceiling tile	Room 220, adjacent to windows 12:00 PM	ND
UM1104-A3 2113745	12 x 12 smooth ceiling tile - fiberglass matrix - Type 1	Room 220, adjacent to windows 4:40 PM	ND
UM1104-A4 2113746	Grey window caulking	Room 200, around windows	1.6% Chrysotile
UM1104-A5 2113747	Grey window caulking	Room 220, around windows	Not analyzed Assumed same as A4
UM1104-A6 2113748	12 x 24 smooth ceiling tile - fiberglass matrix - Type 2	Room 224, SE corner on wall by window and molding - 4:51 PM	ND
UM1104-A7 2113749	Brown mastic under type 2 ceiling tile	Room 224, SE corner on wall by window and molding	ND
UM1104-A8 2113750	White type 1 ceiling tile	Room 224, adjacent to windows 4:51 PM	ND
UM1104-A9 2113751	Brown mastic under type 1 ceiling tile	Room 224, adjacent to windows	ND
UM1104-A10 2113752	White type 1 ceiling tile	Room 157, adjacent to windows 4:45 PM	ND

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA HS-9/95

CP01129104

Page 1 of 2


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FIELD SURVEY DATA (continued)			
PROJECT NAME: Ursa Major Window Replacement		FACILITY: Ursa Major Elementary School	
JOB NUMBER: 6141-01		DATE: November 5, 2005	COLLECTED BY: David DeMay
SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
UM1104-A11 2113753	Brown mastic under type 1 ceiling tile	Room 157, adjacent to windows	ND
UM1104-A12 2113754	Type 2 ceiling tile	Room 157, SW wall by molding 4:46 PM	ND
UM1104-A13 2113755	Brown mastic under type 2 tile	Room 157, SW wall by molding	ND
UM1104-A14 2113756	Type 2 ceiling tile	Room 164, NE wall by window and molding - 4:48 PM	ND
UM1104-A15 2113757	Brown mastic under type 2 tile	Room 164, NE wall by window and molding	ND
UM1104-A16 2113758	Type 2 ceiling tile	Room 165, SE wall by molding 4:50 PM	ND
UM1104-A17 2113759	Brown mastic under type 2 tile	Room 165, SE wall by molding	ND
UM1104-A18 2113760	Type 1 ceiling tile	Room 165, adjacent to windows 4:50 PM	ND
UM1104-A19 2113761	Brown mastic under type 1 tile	Room 165, adjacent to windows	ND
UM1104-A20 2113762	Brown mastic under type 1 tile	Room 118, under old tile above drop ceiling	ND
UM1104-A21 2113763	Type 1 ceiling tile	Room 118, old tile above drop ceiling	ND
UM1104-A22 2113764	Brown mastic under ceramic tile	Room 170, East wall above drop ceiling	ND
UM1104-A23 2113765	Green texture scraped off painted concrete ceiling	Room 170, above drop ceiling	2.0% Chrysotile
UM1104-A24 2113766	Black marlite mastic	Room 207, behind door trim 4:34 PM	ND
UM1104-A25 2113767	Brown fibrous wall insulation	Room 220, in wall below windows	ND

IATLInternational Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**CERTIFICATE OF ANALYSIS**

Client: EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577

Report Date: 11/16/2004
Project: Ursa Major Elem; 11/5/04
Project No.: 6141-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2113743 **Description / Location:** Black Mastic
Client No.: UM1104-A1 Rm 220, Below Window Sill, 11:36 AM

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
10	Chrysotile	None Detected	None Detected	90

Lab No.: 2113744 **Description / Location:** Brown Mastic
Client No.: UM1104-A2 Rm 220, Adjacent To Windows, 12:00 PM

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 2113745 **Description / Location:** Brown/White Ceiling Tile; 12x12
Client No.: UM1104-A3 Rm 220, Adjacent To Windows, 4:40 PM

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	95	Fibrous Glass	5

Lab No.: 2113746 **Description / Location:** Grey Window Glazing
Client No.: UM1104-A4 Rm 220, Around Windows

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
PC 1.6	Chrysotile	None Detected	None Detected	PC 98.4

NIST-NVLAP No. 101165-0**NY-DOH No. 11021****AIHA Lab No. 100188**

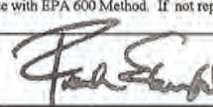
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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: B. Hargrove**Approved By:****Date:** 11/16/2004

Page 1 of 7


 Frank E. Ehrenfeld, III
 Laboratory Director



**International Asbestos
Testing Laboratories**

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577

Report Date: 11/16/2004
Project: Ursa Major Elem; 11/5/04
Project No.: 6141-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2113747	Description / Location: Sample Not Analyzed			
Client No.: UM1104-A5				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
Sample Not Analyzed		Sample Not Analyzed		

Lab No.: 2113748	Description / Location: Tan/White Ceiling Tile; 12x24			
Client No.: UM1104-A6	Rm 224, SE Corner On Wall, 4:51 PM			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	95	Fibrous Glass	5

Lab No.: 2113749	Description / Location: Brown Mastic			
Client No.: UM1104-A7	Rm 224, SE Corner On Wall			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 2113750	Description / Location: Tan/White Ceiling Tile			
Client No.: UM1104-A8	Rm 224, Adjacent To Windows, 4:51 PM			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	95	Fibrous Glass	5

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: B. Hargrove

Date: 11/16/2004

Page 2 of 7



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577

Report Date: 11/16/2004
Project: Ursa Major Elem; 11/5/04
Project No.: 6141-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2113751	Description / Location: Brown Mastic
Client No.: UM1104-A9	Rm 224, Adjacent To Windows
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

Lab No.: 2113752	Description / Location: Tan/White Ceiling Tile
Client No.: UM1104-A10	Rm 157, Adjacent To Windows 4:45 PM
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
95	Fibrous Glass
<u>% Non-Fibrous Material</u>	
	5

Lab No.: 2113753	Description / Location: Brown Mastic
Client No.: UM1104-A11	Rm 157, Adjacent To Windows
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

Lab No.: 2113754	Description / Location: Tan/White Ceiling Tile
Client No.: UM1104-A12	Rm 157, SW Wall By Molding 4:46 PM
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
95	Fibrous Glass
<u>% Non-Fibrous Material</u>	
	5

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: B. Hargrove

Date: 11/16/2004

Page 3 of 7



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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577

Report Date: 11/16/2004
Project: Ursa Major Elem; 11/5/04
Project No.: 6141-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2113755	Description / Location: Brown Mastie
Client No.: UM1104-A13	Rm 157, SW Wall By Molding
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	100

Lab No.: 2113756	Description / Location: Tan/White Ceiling Tile
Client No.: UM1104-A14	Rm 164, NE Wall By Window&Molding, 4:48PM
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	95
<u>% Non-Fibrous Material</u>	Fibrous Glass
	5

Lab No.: 2113757	Description / Location: Brown Mastie
Client No.: UM1104-A15	Rm 164, NE Wall By Window & Molding
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	None Detected
<u>% Non-Fibrous Material</u>	None Detected
	100

Lab No.: 2113758	Description / Location: Tan/White Ceiling Tile
Client No.: UM1104-A16	Rm 165, SE Wall By Molding, 4:50 PM
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	95
<u>% Non-Fibrous Material</u>	Fibrous Glass
	5

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: B. Hargrove

Date: 11/16/2004

Page 4 of 7



**International Asbestos
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CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577

Report Date: 11/16/2004
Project: Ursa Major Elem; 11/5/04
Project No.: 6141-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2113759	Description / Location: Brown Mastic
Client No.: UM1104-A17	Rm 165, SE Wall By Molding
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

Lab No.: 2113760	Description / Location: Tan/White Ceiling Tile
Client No.: UM1104-A18	Rm 165, Adjacent To Windows, 4:50 PM
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
95	Fibrous Glass
<u>% Non-Fibrous Material</u>	
	5

Lab No.: 2113761	Description / Location: Brown Mastic
Client No.: UM1104-A19	Rm 165, Adjacent To Windows
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

Lab No.: 2113762	Description / Location: Brown Mastic
Client No.: UM1104-A20	Rm 118, Under Old Tile Above Drop Ceiling
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: B. Hargrove

Date: 11/16/2004

Page 5 of 7

IATL**International Asbestos
Testing Laboratories**16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**CERTIFICATE OF ANALYSIS****Client:** EHS Alaska Incorporated

11901 Business Blvd., Suite 208

Eagle River AK 99577

Report Date: 11/16/2004**Project:** Ursa Major Elem; 11/5/04**Project No.:** 6141-01**BULK SAMPLE ANALYSIS SUMMARY**

Lab No.: 2113763	Description / Location: Tan/White Ceiling Tile
Client No.: UM1104-A21	Rm 118, Old Tile Above Drop Ceiling
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
95	Fibrous Glass
<u>% Non-Fibrous Material</u>	
	5

Lab No.: 2113764	Description / Location: Tan Mastic
Client No.: UM1104-A22	Rm 170, East Wall Above Drop Ceiling
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

Lab No.: 2113765	Description / Location: Green/Brown Ceiling Texture
Client No.: UM1104-A23	Rm 170, Above Drop Ceiling
<u>% Asbestos</u>	<u>Type</u>
PC 2.0	Chrysotile
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	98

Lab No.: 2113766	Description / Location: Brown Mastic
Client No.: UM1104-A24	Rm 207, Behind Door Trim, 4:34 PM
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

NIST-NVLAP No. 101165-0**NY-DOH No. 11021****AIHA Lab No. 100188**

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: B. Hargrove**Date:** 11/16/2004

Page 6 of 7

IATLInternational Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**CERTIFICATE OF ANALYSIS****Client:** EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577**Report Date:** 11/16/2004
Project: Ursa Major Elem; 11/5/04
Project No.: 6141-01**BULK SAMPLE ANALYSIS SUMMARY**

Lab No.:	2113767	Description / Location:	Brown Insulation		
Client No.:	UM1104-A25		Rm 220, In Wall Below Windows		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	98	Cellulose	2	

NIST-NVLAP No. 101165-0**NY-DOH No. 11021****AIHA Lab No. 100188**

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: B. Hargrove**Date:** 11/16/2004

Page 7 of 7

PAGE 1 OF 1

COMMENTS: Normal Turnaround RUSH!!! Dave called 6/20 @ 9am

[illegible][illegible]

Section 02 26 00 - Page 120 of 333



731 I St., Suite 201, Anchorage, AK 99501-

(907) 258-8661

FAX: (907) 258-8662



Lab #: 200124-0

Bulk Sample Analysis for Asbestos

WEC Project #: 03C-029

Client Project#: 12554

Report #: 17814

Report By: G.Slaughenhoup

Report Date: 6/20/2003

Client: Central Environmental Inc.
700 E. 46th Ave
Anchorage, AK 99503

Collection Date: 6/19/2003
Collection By: CLIENT
TAT: 24 Hour
Analysis By: G.Slaughenhoup
Analysis Date: 6/20/2003
Received By: Mahaffey
Received Date: 6/19/2003

Samples: 2

Layers: 2

Project Name/Location: Ursa Major Window Replacement

Client ID#	WEC ID#	Location	Material	Layer
Bk-12554-01	AB03-3062	back of school, bottom row, center of window.	window sealant	1 of 1
ASBESTOS		% Asbestos: 2%	Homo-	Color
Chrysotile		2%	genous	gray
Other Fibrous Materials		% Other Fibrous Materials: <1%	No	
Cellulose		<1%		
% Non-Fibrous Materials: 98%				

Client ID#	WEC ID#	Location	Material	Layer
Bk-12554-02	AB03-3063	back of school, 2nd row, 4th window from left.	window sealant	1 of 1
ASBESTOS		% Asbestos: <1%	Homo-	Color
Chrysotile		<1%	genous	gray
Other Fibrous Materials		% Other Fibrous Materials: <1%	No	
Cellulose		<1%		
% Non-Fibrous Materials: 99%				

Analyst

QC

Date

Date

Analysis performed by EPA Method 600/R-93/116. All quantities reported are based on visual estimation by PLM, unless point-counting method is requested and noted for the sample. Test report relates only to items tested and must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. Test reports must not be reproduced without the approval of WEC Inc., and are subject to WEC Inc. General Terms and Conditions (see reverse).

WEC WHITE ENVIRONMENTAL CONSULTANTS INC.
731 I St., Suite 201, Anchorage, AK 99501-

(907) 258-8661
FAX: (907) 258-8662

NVLAP[®]

Lab #: 200124-0

Bulk Sample Analysis for Asbestos

WEC Project #: 03C-029

Client Project#: 12554

Report #: 17860

Report By: E. Mahaffey

Report Date: 6/24/2003

Client: Central Environmental Inc.
700 E. 46th Ave
Anchorage, AK 99503

Collection Date: 6/20/2003

Collection By: CLIENT

TAT: 3 Business Days

Analysis By: B. Carroll

Analysis Date: 6/24/2003

Received By: Carroll

Received Date: 6/20/2003

Samples: 1

Layers: 1

Project Name/Location: Ursa Major Window Replacement

Client ID#	WEC ID#	Location	Material	Layer
BK-12554-03	AB03-3070	Center window top behind 1/4 round.	Window Sealant	1 of 1
ASBESTOS		% Asbestos: 4%	Homo- genous	Color
Chrysotile	4%	% Other Fibrous Materials: 2%	No	Grey
Other Fibrous Materials		% Non-Fibrous Materials: 94%		
Cellulose	2%			

Analyst

QC

Date

Date

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EHS ALASKA
INCORPORATED

EHS-Alaska, Inc.

 10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
 (907) 694-1383 • (907) 694-1382 fax
 e-mail • ehsak@ehs-alaska.com

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA			
FIELD COLLECTION DATE: 3-2-04		JOB #: 5987-01	MATERIAL TYPE ASBESTOS
PROJECT NAME: ASD - Ursa Major ES Door Hardware Upgrade Asbestos Sampling		BULK ANALYSIS REQUESTED:	TOTAL QUANTITIES: 4
		☒ PLM ☐ PLM DUST ☐ TEM BULK ☐ LEAD TCLP ☐ LEAD PPM	
FACILITY: Ursa Major Elementary School		DISPOSAL: Normal	TURNAROUND: 24-hour
SPECIAL INSTRUCTIONS:			
COLLECTED BY (signature) Greg Lomax PRINTED NAME T-7959-1783 CERT# AHERA# Fed-Ex. 3/2/04 SHIPPING METHOD 19178672 9424 COURIER (signature) DATE/TIME		IATL SELECTED LABORATORY SAMPLES ACCEPTED BY DATE/TIME ANALYST'S SIGNATURE DATE 3/3/04	COMMENTS: 1003/10/04
SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS
UM-A01 1915464	Brown Paper Insulation	Door 121 - Style 10 - Music Room	N.D.
UM-A02 1915465	Brown Paper Insulation	Door 124A - Style 9 - Music Room	N.D.
UM-A03 1915466	Yellow Fiberglass Insulation	Door 173 - Style 12 - Custodial Closet	N.D.
UM-A04 1915467	White Fibrous Insulation	Door 01 - Style 13 - Basement Storage Room	40% Chrys.

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA HS-995

IATLInternational Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**CERTIFICATE OF ANALYSIS**

Client: EHS Alaska Incorporated

10928 Eagle River Rd. Ste 202

Eagle River AK

99577

Report Date: 3/13/2004

Project: ASD-UrsaMajorES;DoorUpgrade

Project No.: 5987-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 1915464

Client No.: UM-A01

Description / Location: Brown Insulation

Door 121; Style 10; Music Room

% Asbestos

Type

% Non-Asbestos Fibrous Material

Type

% Non-Fibrous Material

None Detected

None Detected

100

Cellulose

0

Lab No.: 1915465

Client No.: UM-A02

Description / Location: Brown Insulation

Door 124A; Style 9; Music Room

% Asbestos

Type

% Non-Asbestos Fibrous Material

Type

% Non-Fibrous Material

None Detected

None Detected

100

Cellulose

0

Lab No.: 1915466

Client No.: UM-A03

Description / Location: Yellow Insulation

Door 173; Style 12; Custodial Closet

% Asbestos

Type

% Non-Asbestos Fibrous Material

Type

% Non-Fibrous Material

None Detected

None Detected

100

Mineral Wool

0

Lab No.: 1915467

Client No.: UM-A04

Description / Location: Grey Insulation

Door 01; Style 13; Basement Storage Room

% Asbestos

Type

% Non-Asbestos Fibrous Material

Type

% Non-Fibrous Material

40

Chrysotile

45

Cellulose

15

NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA Lab No. 444

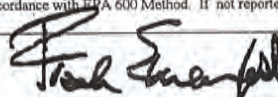
*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.
This report shall not be reproduced except in full, without written approval of the laboratory.*

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: T. Snyder

Approved By:


Frank E. Ehrenfeld, III
Laboratory Director

Date: 3/3/2004

Page 1 of 1

APR-04-03 10:54 AM JAMES HILL ARCHITECT

6965514

P.05

APR-03-2003(THU) 11:18 White Environmental Consultants (F. 907 258 8662

P.002/04

WEC WHITE ENVIRONMENTAL CONSULTANTS INC.

731 I St., Suite 201, Anchorage, AK 99501-

(907) 258-8661
FAX: (907) 258-8662

Lab #: 200124-0

Bulk Sample Analysis for AsbestosWEC Project #: 03G-053
Client Project#:Report #: 16272
Report By: E. Mahaffey
Report Date: 4/2/2003Client: Jim Hill Architect
17140 Hanson St.
Eagle River, AK 99577Collection Date: 4/1/2003
Collection By: B. O'Bray
TAT: 24 Hour
Analysis By: B. Carroll
Analysis Date: 4/2/2003
Received By: Carroll
Received Date: 4/2/2003

Samples: 1 # Layers: 1

Project Name/Location: Ursa Major Elementary

Client ID#	WEC ID#	Location	Material	Layer
053-001	AB03-1503	Window.	Asph. Weather Caulk	1 of 1
ASBESTOS		% Asbestos: 4%	Homogeneous	Color
Chrysotile		4%	No	Grey
Other Fibrous Materials		% Non-Fibrous Materials: 96%		
None Detected				

Analyst

QC

Date

Date

Analysis performed by EPA Method 800/R-93/116. All quantities reported are based on visual estimation by PLM, unless point-counting method is requested and noted for the sample. Test report relates only to items tested and must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. Test reports must not be reproduced without the approval of WEC Inc., and are subject to WEC Inc. General Terms and Conditions (see reverse).


EHS ALASKA
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EHS-Alaska, Inc.

10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

(907) 694-1383 phone • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA				Page <u>1</u> of <u>2</u>
FIELD COLLECTION DATE: <u>4-5-02</u>		JOB #: <u>5679-03</u>		BULK ANALYSIS REQUESTED: (circle) <u>PLM</u> / TEM BULK / LEAD TCLP / LEAD PPM
PROJECT NAME: <u>ASD Ursa Major Dusty Ducts</u>		MATERIAL TYPE: (circle) <u>ASBESTOS</u>		TOTAL LEAD QUANTITIES: <u>12</u>
FACILITY: <u>URSA MAJOR E.S.</u>		DISPOSAL: <u>ROUTINE</u> (WED) <u>4-10-02</u> TURNAROUND:		
SPECIAL INSTRUCTIONS:				
COLLECTED BY (signature) <u>[Signature]</u> PRINTED NAME <u>T-7577-8</u> CERT# _____ AHERA# _____ SHIPPING METHOD <u>852987018738</u> COURIER (signature) _____ DATE/TIME _____		COMMENTS: SELECTED LABORATORY <u>[Signature]</u> SAMPLES ACCEPTED BY <u>[Signature]</u> DATE/TIME <u>APR - 8</u> ANALYST SIGNATURE <u>[Signature]</u> DATE <u>4/11/02</u> <u>W@4/22/02</u>		
SAMPLE ID	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION / COMMENTS (INCLUDING PHOTO / XREF)	RESULTS	
<u>1481149</u> 1481149 MATERIAL CONDITION: GOOD FAIR POOR WATER: _____	<u>GRAN/PNE SINK</u> u/c DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>CR 227</u>	<u>ND</u>	
<u>1481150</u> 1481150 MATERIAL CONDITION: GOOD FAIR POOR WATER: _____	<u>SOFP</u> DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>N. IMC, small room</u>	<u>ND</u>	
<u>1481151</u> 1481151 MATERIAL CONDITION: GOOD FAIR POOR WATER: _____	<u>BEN CEIL FLE MASTIC</u> DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>NW QUADRANT OF IMC OLD CEILING ABOVE LIT</u>	<u>ND</u>	
<u>1481152</u> 1481152 MATERIAL CONDITION: GOOD FAIR POOR WATER: _____	<u>SOFP</u> DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>NE. QUADRANT OF IMC</u>	<u>ND</u>	
<u>1481163</u> 1481163 MATERIAL CONDITION: GOOD FAIR POOR WATER: _____	<u>SOFP</u> DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>CENTER IMC ON E. SIDE</u>	<u>ND</u>	
<u>1481254</u> 1481254 MATERIAL CONDITION: GOOD FAIR POOR WATER: _____	<u>TSK CAR MASTIC</u> DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>AHU-3 CAN RM. N. E. CORNER</u>	<u>ND</u>	
<u>1481255</u> 1481255 MATERIAL CONDITION: GOOD FAIR POOR WATER: _____	<u>CLOCK HOUSING MASTIC</u> DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>E. KINDERGARDEN ROOM</u>	<u>ND</u>	
<u>1481256</u> 1481256 MATERIAL CONDITION: GOOD FAIR POOR WATER: _____	<u>Grey Duct Sealant</u> DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____	<u>Return Air Duct, Stage Fan Duct above ceiling</u>	<u>ND</u>	

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA

EHS-10/00


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EHS-Alaska, Inc.

10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

(907) 694-1383 phone • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

FIELD SURVEY DATA (continued)				Page <u>2</u> of <u>2</u>
PROJECT NAME: <u>ASD Ursa Major Insty Ducts</u>		FACILITY: <u>URSA MAJOR E 3</u>		
JOB NUMBER: <u>479-03</u>		DATE: <u>4-5-02</u>	COLLECTED BY: <u>Ben</u>	
SAMPLE ID	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS	
<u>UT4502-A09</u> <u>1481157</u> MATL. CONDITION: GOOD FAIR POOR	<u>BLK SOUND LINING</u> <u>MASSIC</u> WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:	<u>MPR AHU DISCHARGE</u> <u>PLENUM</u>	<u>ND</u>	
<u>UT4502-A10</u> <u>1481158</u> MATL. CONDITION: GOOD FAIR POOR	<u>GRAY SEALANT</u> WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:	<u>EF DUCT IN</u> <u>MPR AHU ROOM</u>	<u>ND</u>	
<u>UT4502-A11</u> <u>1481159</u> MATL. CONDITION: GOOD FAIR POOR	<u>Gray Clock housing</u> <u>MASSIC</u> WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:	<u>Gym Clock</u> <u>housing</u>	<u>ND</u> <u>2:19</u>	
<u>UT4502-A12</u> <u>1481160</u> MATL. CONDITION: GOOD FAIR POOR	<u>Gray duct sealant</u> WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:	<u>RET RUN AHU</u> <u>RETURN DUCT</u>	<u>ND</u> <u>2:18 23</u>	
<u>END</u>				
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			
MATL. CONDITION: GOOD FAIR POOR	WATER: DAMAGE POTENTIAL: (LO, MED, HI) AIR: VIBRATION: CONTACT:			

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/11/2002
Project: URSA Major E.S., 4-5-02
Project No.: 5679-03

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 1481149	Material Description: Grey Fibrous			
Client No.: UJ4502-A01	Location: CR227			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	1	Cellulose	99

Lab No. 1481150	Material Description: Tan Fibrous			
Client No.: UJ4502-A02	Location: N.IMC; Small Room			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	20	Cellulose	75
		5	Fibrous Glass	

Lab No. 1481151	Material Description: Dk. Tan CT Mastie			
Client No.: UJ4502-A03	Location: N.W. Quadrant Of IMC Old Ceiling Above LCT			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	2	Fibrous Glass	98

Lab No. 1481152	Material Description: Tan Fibrous			
Client No.: UJ4502-A04	Location: N.E. Quadrant Of IMC			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	15	Cellulose	80
		5	Fibrous Glass	

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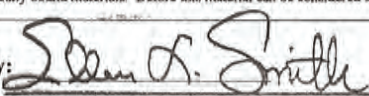
APR 29 2002

NIST-NVLAP No. 1165
NY-DOH No. 11021
AIHA Lab No. 444

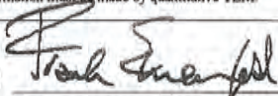
This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By: 
Date: APR 11 2002 Ellen L. Smith

Approved By:



Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/23/2002
Project: URSA Major E.S., 4-5-02
Project No.: 5679-03

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 1481153	Material Description: Tan Fibrous			
Client No.: UJ4502-A05	Location: Center IMC On	E.Side		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	15	Cellulose	80
		5	Fibrous Glass	

Lab No. 1481154	Material Description: Black Mastic			
Client No.: UJ4502-A06	Location: AHU-3 Fan Room	N.E. Corner		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	1	Cellulose	99

No Floor Tile

Lab No. 1481155	Material Description: Black Mastic			
Client No.: UJ4502-A07	Location: E. Kindergarten Room	A/W Clock Housing		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

No Floor Tile

Lab No. 1481156	Material Description: Grey Duct Sealant			
Client No.: UJ4502-A08	Location: Return Air Duct	Stage Fan Duct		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

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APR 29 2002

NIST-NVLAP No. 1165**NY-DOH No. 11021****AIHA Lab No. 444**

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By:

Date: APR 11 2002
Ellen L. Smith

Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS**Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/11/2002
Project: URSA Major E.S., 4-5-02
Project No.: 5679-03**BULK SAMPLE ANALYSIS SUMMARY**

Lab No.	1481157	Material Description:	Black Mastic	
Client No.:	UJ4502-A09	Location:	MPR AHU Discharge	Plenum
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	7	Fibrous Glass	93

No Floor Tile

Lab No.	1481158	Material Description:	Grey Sealant	
Client No.:	UJ4502-A10	Location:	EF Duct In MPR	AHU Room
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	1	Cellulose	99

Lab No.	1481159	Material Description:	Black Mastic	
Client No.:	UJ4502-A11	Location:	Gym Clock Housing	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	2	Cellulose	98

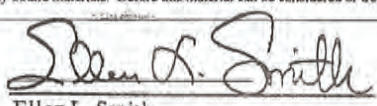
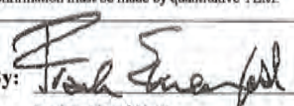
No Floor Tile

Lab No.	1481160	Material Description:	Grey Sealant	
Client No.:	UJ4502-A12	Location:	Art Room AHU	Return Duct
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	1	Cellulose	99

RECEIVED

NIST-NVLAP No. 1165**NY-DOH No. 11021****AIHA Lab No. 444***This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.*

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.**Analysis Performed By:** 
Date: APR 11 2002
Ellen L. Smith**Approved By:** 
Frank E. Ehrenfeld, III
Laboratory Director



EHS ALASKA
INCORPORATED

Engineering, Health Safety Consultants
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
(907) 694-1383 • (907) 694-1382 fax

PUSH

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA				Page 1 of 3
FIELD COLLECTION DATE: 4-10-01		JOB #: 5435-01		MATERIAL TYPE: (Circle) ASBESTOS LEAD
PROJECT NAME: ASD URSA MAJOR MECH. UPGRADE		BULK ANALYSIS REQUESTED: (circle) PLM / PLM DUST / TEM BULK / LEAD TCLP / LEAD PPM		
FACILITY: URSA MAJOR ELEM. SCHOOL		DISPOSAL: USUAL		TURNAROUND: SAME DAY
SPECIAL INSTRUCTIONS:				
COLLECTED BY (signature) ROBERT J. VAUGHN PRINTED NAME 1999096/T-7577-12 CERT# AHERA# SHIPPING METHOD 82460090 7755 COURIER (signature) 4/11/01 DATE/TIME 11am		COMMENTS: SELECTED LABORATORY SAMPLES ACCEPTED BY DATE/TIME ANALYST'S SIGNATURE DATE 4/12/2001 RECEIVED APR 12 2001 YD@04/16/01		
SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS	
1. UJ41001-A01 1255667 MATERIAL CONDITION: GOOD FAIR POOR	FT-1 12X12 TAN/Y GREY & WHITE STREAKS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 110 CENTER OF EAST WALL	ND	
2. UJ41001-A02 1255668 MATERIAL CONDITION: GOOD FAIR POOR	TAN/MASTIC ON MARLITE DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 109 UNDER SINKS ON SOUTH WALL	ND	
3. UJ41001-A03 1255669 MATERIAL CONDITION: GOOD FAIR POOR	SU-1 SAND STONE WITH RED SPECKS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 109 NORTH SIDE OF DOUBLE DOORS TO CAFETERIA	ND	
4. UJ41001-A04 1255670 MATERIAL CONDITION: GOOD FAIR POOR	GREY SINK UNDER COAT DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 109 SINK ON WEST WALL	ND	
5. UJ41001-A05 1255671 MATERIAL CONDITION: GOOD FAIR POOR	LIGHT BROWN COVE BASE MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 106 WEST SIDE OF DOOR	ND	
6. UJ41001-A06 1255672 MATERIAL CONDITION: GOOD FAIR POOR	SU-2 WITH MASTIC BEIGE W/ MIN. WHITE STREAKS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SAME AS A05	ND	
7. UJ41001-A07 1255673 MATERIAL CONDITION: GOOD FAIR POOR	DARK BROWN COVE BASE MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SAME AS A05	ND	
8. UJ41001-A08 1255674 MATERIAL CONDITION: GOOD FAIR POOR	BROWN GCT MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 101 S.E. CORNER OF ROOM	ND	

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INCORPORATED

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(907) 694-1383 phone • (907) 694-1382 fax
e-mail • ehsak@ehs-alaska.com

FIELD SURVEY DATA (continued)			Page 2 of 3
PROJECT NAME: ASD URSA MAJOR MECH. UPGRADES		FACILITY: URSA MAJOR ELEM. SCHOOL	
JOB NUMBER: 5435-01		DATE: 4-10-01	COLLECTED BY: Robert J. Vaughn
SAMPLE ID	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO / XREF)	RESULTS
UJ41001-A09 1255675 MATERIAL CONDITION: GOOD FAIR POOR	GCT-1 12X12 FLAT WHITE DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 101 S.E. CORNER OF ROOM	ND
UJ41001-A10 1255676 MATERIAL CONDITION: GOOD FAIR POOR	LCT-1 2X4 W/5" SQUARES DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SAME AS A09	ND
UJ41001-A11 1255677 MATERIAL CONDITION: GOOD FAIR POOR	GCT-1 DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 114 1' INSIDE DOOR TO CORRIDOR	ND
UJ41001-A12 1255678 MATERIAL CONDITION: GOOD FAIR POOR	BROWN GCT MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SAME AS A11	ND
UJ41001-A13 1255679 MATERIAL CONDITION: GOOD FAIR POOR	LCT-2 2X4 W/RANDOM 3/4" FISS & DOTS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SAME AS A11	ND
UJ41001-A14 1255680 MATERIAL CONDITION: GOOD FAIR POOR	GCT-2 DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 118 N.W. CORNER OF ROOM	ND
UJ41001-A15 1255681 MATERIAL CONDITION: GOOD FAIR POOR	GCT - BROWN MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SAME AS A14	ND
UJ41001-A16 1255682 MATERIAL CONDITION: GOOD FAIR POOR	GCT-3 12X12 W/ALIGNED 1/2" FISSERS & DOTS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ROOM 124 10' FROM SOUTH WALL CENTER OF ROOM	ND
UJ41001-A17 1255683 MATERIAL CONDITION: GOOD FAIR POOR	TAR PAPER (BROWN) DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SOUTH 1ST FLOOR REST ROOM PIPE CHASE SOUTH WALL WEST END	ND
UJ41001-A18 1255684 MATERIAL CONDITION: GOOD FAIR POOR	PLASTER BASE DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SAME AS A17	ND
UJ41001-A19 1255685 MATERIAL CONDITION: GOOD FAIR POOR	BLACK TAR PAPER DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	SAME AS A17	ND
UJ41001-A20 1255686 MATERIAL CONDITION: GOOD FAIR POOR	LCT-2 DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	BOY SOUTH REST ROOM 1ST FLOOR EAST END AT ANGLE CENTER OF ROOM	ND



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FIELD SURVEY DATA (continued)			Page <u>3</u> of <u>3</u>
PROJECT NAME: <u>AFD URSA MAJOR MECH. UPGRADES</u>		FACILITY: <u>URSA MAJOR ELEM. SCHOOL</u>	
JOB NUMBER: <u>5435-01</u>		DATE: <u>4-10-01</u>	COLLECTED BY: <u>Robert J. Vahl</u>
SAMPLE ID	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS
<u>4J41001-A21</u> <u>1255687</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>BLACK CORK MASTIC</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>ABOVE JANITOR CLOSET NORTH</u> <u>REST ROOMS ABOVE ATTIC</u> <u>ENTRANCE</u>	<u>ND</u>
<u>4J41001-A22</u> <u>1255688</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>SV-3 CREAM + LIGHT GRAY</u> <u>MAJAK W/GREEN + BROWN</u> <u>SPECKS</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>ROOM 114 SOUTH SIDE</u> <u>OF DOOR TO CORRIDOR</u>	<u>ND</u>
<u>4J41001-A23</u> <u>1255689</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>BLACK FIBER BOARD MASTIC</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>SOUTH EAST UTILIDOR</u> <u>10' ^{SOUTH} OF BASEMENT</u> <u>ENTRANCE EAST WALL</u>	<u>ND</u>
<u>4J41001-A24</u> <u>1255690</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>LCT-1</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>ROOM 104 5' NORTH</u> <u>OF OUTSIDE CORNER OF</u> <u>CLOSET</u>	<u>ND</u>
<u>4J41001-A25</u> <u>1255691</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>LCT-1</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>ROOM 103 CENTER</u> <u>OF ROOM</u>	<u>ND</u>
<u>4J41001-A26</u> <u>1255692</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>LCT-2</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>SOUTH WEST CORNER OF</u> <u>INTERSECTION OF CORRIDORS</u> <u>100 & 111</u>	<u>ND</u>
<u>4J41001-A27</u> <u>1255693</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>GCT-1</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>ROOM 201 OVER SHELF</u> <u>AREA BY DOOR, CENTER</u> <u>OF SHELF AREA 2' FROM WALL</u>	<u>ND</u>
<u>4J41001-A28</u> <u>1255694</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>GCT-2</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>ROOM 201 OVER SHELF</u> <u>AREA BY DOOR CENTER OF</u> <u>SHELF ON SOFIT WALL</u>	<u>ND</u>
<u>4J41001-A29</u> <u>1255695</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>GCT-2</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>ROOM 124 S.W. CORNER</u> <u>OF ROOM</u>	<u>ND</u>
<u>4J41001-A30</u> <u>1255696</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>GCT-3</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>SOUTH END OF WEST SET</u> <u>OF LIGHT FIXTURES</u>	<u>ND</u>
<u>4J41001-A31</u> <u>1255697</u> MATERIAL CONDITION: GOOD FAIR POOR	<u>GCT-3</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>SOUTH END OF EST SET</u> <u>OF LIGHT FIXTURES</u>	<u>ND</u>
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:		

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.	1255667	Material Description:	LtTan Floor Tile		
Client No.:	UJ41001-A01	Location:	FT-1;12x12;Rm110	Tan Mastic	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

Lab No.	1255667	Material Description:	LtTan Floor Tile		
Client No.:	UJ41001-A01	Location:	FT-1;12x12;Rm110	Tan Mastic	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	
Tan Mastic					
From Above					

Lab No.	1255668	Material Description:	Tan Mastic		
Client No.:	UJ41001-A02	Location:	On Marlite; Rm 109	Under Sinks; S Wall	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

Lab No.	1255669	Material Description:	White Non Fibrous		
Client No.:	UJ41001-A03	Location:	SV-1;Sand Stone	Rm109 N Side DbIDrs	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	2	Fibrous Glass	98	

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NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA Lab No. 444

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EHS - ALASKA, INC.

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By:

Date:

APR 12 2001

Graciela Manjarres N., AIHA-AAR 4029

Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 1255667	Material Description: LtTan Floor Tile			
Client No.: UJ41001-A01	Location: FT-1;12x12;Rm110	Tan Mastic		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No. 1255667	Material Description: LtTan Floor Tile			
Client No.: UJ41001-A01	Location: FT-1;12x12;Rm110	Tan Mastic		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100
	Tan Mastic			
	From Above			

Lab No. 1255668	Material Description: Tan Mastic			
Client No.: UJ41001-A02	Location: On Marlite; Rm 109	Under Sinks; S Wall		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No. 1255669	Material Description: White Non Fibrous			
Client No.: UJ41001-A03	Location: SV-1; Sand Stone	Rm 109 N Side Dbl Drs		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	2	Fibrous Glass	98

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By:

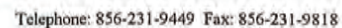
Date:

APR 12 2001

Graciela Manjarres N., AIHA-AAR 4029

Approved By:

Frank E. Ehrenfeld, III
Laboratory Director



Report Date: 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

Lab No.	1255672	Material Description:	Tan Rubber		
Client No.:	UJ41001-A06	Location:	SV-2;Rm106 W Side Dr Tan Mastic		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	
Tan Mastic					
From Above					

APR 26 2001

AIHA Lab No. 444

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Analysis Method: EPA 600/R-93/116

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Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
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Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS**Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01**BULK SAMPLE ANALYSIS SUMMARY**

Lab No. 1255673	Material Description: Tan Mastic			
Client No.: UJ41001-A07	Location: Cove Base;Rm 106	W Side Of Door		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No. 1255674	Material Description: Brown Mastic			
Client No.: UJ41001-A08	Location: GCT Mastic;Rm101	SE Corner Of Rm		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No. 1255675	Material Description: Orange Ceiling Tile			
Client No.: UJ41001-A09	Location: GCT-1;12x12;Rm101	SE Corner Of Rm		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	75	Fibrous Glass	25

Lab No. 1255676	Material Description: Tan Ceiling Tile			
Client No.: UJ41001-A10	Location: LCT-1;2x4 w/5"Square	Rm 101; SE Corner		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	45	Cellulose	25
		30	Fibrous Glass	

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Analysis Method: EPA 600/R-93/116

EHS - ALASKA, INC.**Comments:** (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.**Analysis Performed By:** *Graciela Manjarres N.***Approved By:** *Frank E. Ehrenfeld, III***Date:** APR 12 2001 **Graciela Manjarres N., AIHA-AAR 4029**Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 1255677	Material Description: Orange Ceiling Tile	
Client No.: UJ41001-A11	Location: GCT-1; Rm 114	1' Inside Dr To Corr
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
None Detected	None Detected	78
		<u>Type</u>
		Fibrous Glass
		<u>% Non-Fibrous Material</u>
		22

Lab No. 1255678	Material Description: Brown Mastic	
Client No.: UJ41001-A12	Location: GCT Mastic; Rm 114	1' Inside Dr To Corr
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
None Detected	None Detected	None Detected
		<u>Type</u>
		None Detected
		<u>% Non-Fibrous Material</u>
		100

Lab No. 1255679	Material Description: Tan Ceiling Tile	
Client No.: UJ41001-A13	Location: LCT-2; 2x4; w/Random	3/4" Fiss & Dots; Rm 114
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
None Detected	None Detected	45
		<u>Type</u>
		Cellulose
		<u>% Non-Fibrous Material</u>
		25
		30
		Fibrous Glass

Lab No. 1255680	Material Description: Orange Ceiling Tile	
Client No.: UJ41001-A14	Location: GCT-2; Rm 118	NW Corner Of Rm
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
None Detected	None Detected	70
		<u>Type</u>
		Fibrous Glass
		<u>% Non-Fibrous Material</u>
		30

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NIST-NVLAP No. 1165
NY-DOH No. 11021
AIHA Lab No. 444

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-labile organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By:

Graciela Manjarres

Approved By:

Frank E. Ehrenfeld, III

Date:

APR 28 2001

Graciela Manjarres N., AIHA-AAR 4029

Frank E. Ehrenfeld, III
Laboratory Director

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Testing Laboratories

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Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.	1255681	Material Description:	Brown Mastie		
Client No.:	UJ41001-A15	Location:	GCT Mastie; Rm 118 NW Corner Of Rm		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

Lab No.	1255682	Material Description:	Tan Ceiling Tile		
Client No.:	UJ41001-A16	Location:	GCT-3; 12x12; Rm 124 10' From S Wall		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	45	Fibrous Glass	25	
		30	Cellulose		

Lab No.	1255683	Material Description:	Brown Paper		
Client No.:	UJ41001-A17	Location:	Tar Paper; South 1F Restroom Pipe Chase		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	75	Cellulose	25	

Lab No.	1255684	Material Description:	Grey Plaster		
Client No.:	UJ41001-A18	Location:	Base; South 1F Restroom Pipe Chase		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

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NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA-ALASKA No. 444

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Analysis Method: EPA 600/R-93/116

EHS-ALASKA, INC.

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By: Graciela Manjarres N., AIHA-AAR 4029

Date: APR 2 2001

Approved By:

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/17/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 1255685	Material Description: Black Tarpaper			
Client No.: UJ41001-A19	Location: South 1F Restroom	Pipe Chase		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	40	Cellulose	60

Lab No. 1255686	Material Description: Tan Ceiling Tile			
Client No.: UJ41001-A20	Location: LCT-2; Boy South Rest	Room; 1F E End		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	45	Cellulose	25
		30	Fibrous Glass	

Lab No. 1255687	Material Description: Black Mastic			
Client No.: UJ41001-A21	Location: Cork Mastic; Above	Janitor Closet North		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No. 1255688	Material Description: Tan Linoleum			
Client No.: UJ41001-A22	Location: SV-3; Rm 114 S Side	Of Door To Corridor		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	15	Cellulose	75
No Mastic		10	Synthetic	

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NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA Lab No. 444

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By: *Graciela Manjarres*Approved By: *Frank E. Ehrenfeld, III*

Date: APR 12 2001 Graciela Manjarres N., AIHA-AAR 4029

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 1255689	Material Description: Brown/Black Mastic			
Client No.: UJ41001-A23	Location: Fibrous; Fiberboard	SE Utilidor		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	40	Cellulose	60

Lab No. 1255690	Material Description: Tan Ceiling Tile			
Client No.: UJ41001-A24	Location: LCT-1; Rm104; 5' N	Of OS Corner Of Clst		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	45	Cellulose	25
		30	Fibrous Glass	

Lab No. 1255691	Material Description: Tan Ceiling Tile			
Client No.: UJ41001-A25	Location: LCT-1; Rm103	Center Of Rm		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	40	Cellulose	30
		30	Fibrous Glass	

Lab No. 1255692	Material Description: Tan Ceiling Tile			
Client No.: UJ41001-A26	Location: LCT-2; SW Corner Of	Intersection Of Corr		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	40	Cellulose	30
		30	Fibrous Glass	

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NY-DOH No. 11021

AIHA Lab No. 444

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.

Analysis Method: EPA 600/R-93/116

EHS - ALASKA, INC.

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By: *Graciela Manjarres N.*
Date: APR 12 2001
Graciela Manjarres N., AIHA-AAR 4029

Approved By:

Frank E. Ehrenfeld, III
Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 1255693	Material Description: Orange Ceiling Tile	
Client No.: UJ41001-A27	Location: GCT-1;Rm201;Over Shelf Area By Door	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
None Detected	None Detected	75
		<u>Type</u>
		Fibrous Glass
		<u>% Non-Fibrous Material</u>
		25

Lab No. 1255694	Material Description: Orange Ceiling Tile	
Client No.: UJ41001-A28	Location: GCT-2;Rm201;Over Shelf Area By Door	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
None Detected	None Detected	80
		<u>Type</u>
		Fibrous Glass
		<u>% Non-Fibrous Material</u>
		20

Lab No. 1255695	Material Description: Orange Ceiling Tile	
Client No.: UJ41001-A29	Location: GCT-2; Rm 124 SW Corner Of Rm	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
None Detected	None Detected	75
		<u>Type</u>
		Fibrous Glass
		<u>% Non-Fibrous Material</u>
		25

Lab No. 1255696	Material Description: Tan Ceiling Tile	
Client No.: UJ41001-A30	Location: GCT-3;S End Of W Set Of Light Fixtures	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
None Detected	None Detected	45
		<u>Type</u>
		Fibrous Glass
		<u>% Non-Fibrous Material</u>
		25
		30
		Cellulose

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NY-DOH No. 11021

AIHA Lab No. 444

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By:

Graciela Manjarres N.

Approved By:

Frank E. Ehrenfeld, III

Date:

APR 12 2001

Graciela Manjarres N., AIHA-AAR 4029

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/12/2001
Project: ASD URSA Major Mech Upgrade
Project No.: 5435-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.	1255697	Material Description:	Tan Ceiling Tile		
Client No.:	UJ41001-A31	Location:	GCT-3;S End Of E Set Of Light Fixtures		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	30	Cellulose	25	
		45	Fibrous Glass		

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EHS - ALASKA, INC.

NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA Lab No. 444

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TBM.

Analysis Performed By: *Graciela Manjarres N.*

Approved By: *Frank E. Ehrenfeld, III*

Date:

APR 18 2001

Graciela Manjarres N., AIHA-AAR 4029

Frank E. Ehrenfeld, III
Laboratory Director



Solar Environmental Services, Inc.

1131 E. 76th Avenue, Suite 102
Anchorage, AK 99518
Home Page: www.alaska.net/~sesenvir/

Phone: (907) 349-7705
Fax: (907) 349-7944
E-mail: sesenvir@alaska.net

CERTIFICATE OF ANALYSIS

CLIENT: Environmental Health Sciences
ATTN: Tom Swearingen
10928 Eagle River Road, Ste. 202
Eagle River, Alaska 99577

CLIENT ORDER #: 191005
PROJECT NAME: ASD Ursa Major
PROJECT #: 5435-01
REPORT #: B2001-0074
REPORT DATE: April 19, 2001
COLLECTED BY: Client
DATE SAMPLED: April 12, 2001
DATE RECEIVED: April 13, 2001
DATE ANALYZED: April 19, 2001
ANALYZED BY: G. Torrijos

PAGE: 1 of 1

BULK ASBESTOS ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY (PLM) EPA METHOD 600-M4-82-020

LAB. #	CLIENT#	DESCRIPTION/ LOCATION/ COLOR	% ASBESTOS PRESENT	% OTHER FIBROUS MATERIALS	%NONFIBROUS MATERIALS
2001531BO0271	UJ41201-A32	Joint Compound (White)	None Detected	1-2% Fibrous Glass <1% Cellulose	98-99%
2001531BO0272	UJ41201-A33	Joint Compound (White/Lt. Pink)	None Detected	<1% Fibrous Glass <1% Cellulose	99-100%
2001531BO0272QC	UJ41201-A33QC	Quality Control	None Detected	<% Fibrous Glass <1% Cellulose	99-100%

End of Report

All quantitations are based on visual estimation unless point counting method, per NESHAP 40 CFR Part 61, is requested by client. Test report relates only to the items tested and must not be used by client to claim product endorsement by NVLAP or any Agency of the U.S. Government. Test report must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions. Small asbestos fibers may be missed by PLM Method due to resolution limitations of the optical microscope. Therefore, None Detected and <1% PLM results cannot be guaranteed. Transmission Electron Microscopy (TEM) is recommended for confirmation.

REVIEWED AND APPROVED BY: _____
Gracita O. Torrijos, Chemist - I.H.

Date: _____

FORM SES 1008 REVISED 6/17/98

NVLAP Accredited Laboratory
APR-19-2001 16:13

SES

AIHA - AAR - PAT Certified
98% P.01


EHS ALASKA
INCORPORATED

Engineering, Health & Safety Consultants
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
(907) 694-1383 • (907) 694-1382 fax

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA				Page <u>1</u> of <u>1</u>
FIELD COLLECTION DATE: <u>4-12-01</u>		JOB #: <u>5435-01</u>		MATERIAL TYPE:(Circle) ASBESTOS LEAD
PROJECT NAME: <u>ASD-URSA MAJOR MECH. UPGRADE</u>		BULK ANALYSIS REQUESTED:(circle) PLM / PLM DUST / TEM BULK / LEAD TCLP / LEAD PPM		
FACILITY: <u>URSA MAJOR</u>		DISPOSAL: <u>USUAL</u>		TURNAROUND: <u>3 DAY</u>
SPECIAL INSTRUCTIONS:				
COLLECTED BY (signature) <u>Robert J. Vaghen</u> PRINTED NAME <u>19990096/T-2577-12</u> CERT# <u>Courier - Drop Box</u> SHIPPING METHOD <u>Drop Box</u> COURIER (signature) <u>Drop Box</u> DATE/TIME <u>4/12/01 19:15</u>		SELECTED LABORATORY <u>SOLAR</u> SAMPLES ACCEPTED BY DATE/TIME ANALYST'S SIGNATURE DATE		COMMENTS:
SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS	
1. <u>UJ41201-A32</u>	<u>WHITE JOINT COMPOUND</u>	<u>ROOM 111B CENTER OF EAST WALL</u>		
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
2. <u>UJ41201-A33</u>	<u>WHITE JOINT COMPOUND</u>	<u>ROOM 111B CENTER OF WEST WALL</u>		
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
3.	<u>END</u>			
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
4.				
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
5.				
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
6.				
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
7.				
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
8.				
MATL. CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA EHS-1/2000

AUG 20 31 24



ENVIRONMENTAL HEALTH SCIENCES - ALASKA, INC.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
TEL # 907-694 1383 FAX # 907-694 1382

PAGE 1 OF 1

SEE ATTACHED

CHAIN OF CUSTODY RECORD / MONITORING FIELD DATA									
JOB NUMBER: 3728		PROJECT NAME: 7 BASE SCHOOLS		ANALYSIS REQUESTED (CIRCLE): PLM REL - TEL - OTHER					
CLIENT: DHAS		AHEA REINSTRUCTS		SAMPLE QUANTITY: 30					
WORK AREA LOCATION: ELMENDORF AFB ALASKA		TURNAROUND REQUESTED: 72 HOURS		RESULTS MON (B): Noon					
SAMPLE TYPE DESIGNATIONS: A - WORK AREA SAMPLE B - BACKGROUND SAMPLE C or T - CLEARANCE SAMPLE E - ENVIRONMENTAL SAMPLE P - PERSONAL SAMPLE X - BOMB CASSETTE		DISPOSAL REQUIREMENTS: -		SPECIAL INSTRUCTIONS:					
SAMPLE # @ QUANTITY	SAMPLE DESCRIPTION	TIME ON	FLOW RATE	TIME OFF	FLOW RATE	VOLUME	PUMP #	RESULTS (f/cg)	
# 6	JFK 36-01 THRU 06								
# 4	UJ 36-01 THRU 04								
# 6	UN 37-01 " 06								
# 3	AR 38-01 " 03								
# 1	MI 38-01								
# 6	AN 38-01 " 06								
# 4	038-11; OR 38-02 THRU 04								
# 8									

1. I CERTIFY THAT THE LISTED SAMPLES WERE COLLECTED AT THE SITED FACILITY.

SIGNATURE: Tony S. [Signature]
PRINTED NAME: TONY S. SUTTON/NEARKEP
COLLECTION DATE: 3-6-95
CERT. #
AHEA # T-5270-13
FORM: EHS-AK
ANALYST SIGNATURE: [Signature]
CASSIETTE LOT #
CASSIETTE TYPE: 25mm or 31mm TEL or PCH
SHIPPING METHOD: FED EX

RELINQUISHED BY:
SIGNATURE:
PRINTED NAME:
FIRM:
DATE/TIME:
RECEIVED BY:
SIGNATURE:
PRINTED NAME:
FIRM:
DATE/TIME:

COMMENTS:

** RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-AI ASKA **

EHS FORM 3/08/94

 EHS ALASKA ENVIRONMENTAL HEALTH SCIENCES - ALASKA, INC.		FIELD SURVEY DATA SHEET		SHEET 1 OF 1	
FACILITY: <u>URSA MAJOR ELEMENTARY</u>			JOB NO. <u>3728-05</u>		
ADDRESS:					
SAMPLE NUMBER <u>UJ36-01</u>	FUNCTIONAL AREA: <u>1ST FLOOR JAN CLOSET + BATH N.E. END</u>		LOCATION: <u>HOLE IN JAN CLOSET WALL</u>		
	HOMOGENEOUS MATL: <u>GNB</u>		TYPE: <u>MISC</u>	FRIABLE: <u>N</u>	
X REF:	CONDITION: <u>OK</u>		ACCESS: <u>EMP</u>	REF DWG:	
	POTENTIAL: <u>(C)</u> V A W		PHOTO:	RESULTS: <u>N/D</u>	
COMMENTS: <u>HOLE CUT IN WALL</u>					
SAMPLE NUMBER <u>UJ36-02</u>	FUNCTIONAL AREA: <u>BOYS BATHROOM N. END 1ST FL</u>		LOCATION: <u>ABOVE STALLS PIPE CHASE WALL</u>		
	HOMOGENEOUS MATL: <u>GNB</u>		TYPE: <u>MISC</u>	FRIABLE:	
X REF:	CONDITION: <u>SOME DAMAGED</u>		ACCESS: <u>PUBLIC</u>	REF DWG:	
	POTENTIAL: <u>(C)</u> V A <u>(W)</u>		PHOTO:	RESULTS: <u>N/D</u>	
COMMENTS: <u>SOME WATER DAMAGE</u>					
SAMPLE NUMBER <u>UJ36-03</u>	FUNCTIONAL AREA: <u>CLASS ROOM SPACES</u>		LOCATION: <u>CLOSET IN CLASSROOM</u>		
	HOMOGENEOUS MATL: <u>BROWN W/FISSURE 9x9 VAT</u>		TYPE: <u>MISC</u>	FRIABLE: <u>N</u>	
X REF:	CONDITION: <u>GOOD</u>		ACCESS: <u>PUBLIC</u>	REF DWG:	
	POTENTIAL: C V A W		PHOTO:	RESULTS: <u>2% CHRY</u>	
COMMENTS:					
SAMPLE NUMBER <u>UJ36-04</u>	FUNCTIONAL AREA: <u>KINDERGARTEN BATHROOMS</u>		LOCATION: <u>FLOOR</u>		
	HOMOGENEOUS MATL: <u>SHEET VINYL TAN CHIP PATTERN</u>		TYPE: <u>MISC</u>	FRIABLE: <u>N</u>	
X REF:	CONDITION: <u>GOOD</u>		ACCESS: <u>PUBLIC</u>	REF DWG:	
	POTENTIAL: <u>(C)</u> V A <u>(W)</u>		PHOTO:	RESULTS: <u>5% CHRY</u>	
COMMENTS: <u>BACK ONLY</u>					
SAMPLE NUMBER	FUNCTIONAL AREA:		LOCATION:		
	HOMOGENEOUS MATL:		TYPE:	FRIABLE:	
X REF:	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: C V A W		PHOTO:	RESULTS:	
COMMENTS:					
INSPECTOR: <u>TONY SLATON BARKEIR</u>			DATE: <u>3-6-95</u>		
SIGNATURE: <u>Tony Slaton Barkeir</u>			AHERA NO.: <u>T-5270-13</u>		

See Table 1-2 of AHERA QA Manual for key to coded entries.

EHS 992

Table I
Polarized Light Analysis Results
Project AOC503124

Sample Number / Sample Appearance	Client Sample Number	Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Asbestos				Nonasbestos				Fibrous Synthetic	Other Non-Fibrous	Run Date	Analyst
									Mineral	Fibrous	Glass	Fibers	Fibers	Material	Material	Material				
1526943CPL Brown cove mastic	JFK36-01	-	-	-	-	-	-	<1 Tr %	NFM: Qtz, Carb, Binder, Opaq, Fine Grains, Misc. Part.	-	-	-	-	99+ %	3/9/95	KZ	-	-	3/9/95	KZ
1526944CPL Brown cove mastic	JFK36-02	-	-	-	-	-	-	<1 Tr %	NFM: Qtz, Carb, Binder, Opaq, Fine Grains, Misc. Part.	-	-	2 %	-	98 %	3/9/95	Homogeneous	-	-	3/9/95	KZ
1526945CPL White sheetrock	JFK36-03	-	-	-	-	-	-	3 %	NFM: Qtz, Carb, Opaq, Gyp, Fine Grains, Misc. Part.	-	-	<1 Tr %	-	97 %	3/9/95	Homogeneous	-	-	3/9/95	KZ
1526946CPL White sheetrock and joint compound	JFK36-04	-	-	-	-	-	-	8 %	NFM: Qtz, Carb, Binder, Opaq, Gyp, Mica, Fine Grains, Misc. Part.	-	-	1 %	-	91 %	3/9/95	Homogeneous	-	-	3/9/95	KZ
1526947CPL White sheetrock and joint compound	JFK36-05	-	-	-	-	-	-	4 %	NFM: Qtz, Carb, Opaq, Gyp, Mica, Fine Grains, Misc. Part.	-	-	1 %	-	95 %	3/9/95	Non Homogeneous	-	-	3/9/95	KZ
1526948CPL Yellow and white wall texture	JFK36-06	-	-	-	-	-	-	<1 Tr %	NFM: Qtz, Carb, Binder, Opaq, Mica, Fine Grains, Misc. Part.	-	-	-	-	99+ %	3/9/95	Homogeneous	-	-	3/9/95	KZ
1526949CPL White sheetrock	UJ36-01	-	-	-	-	-	-	3 %	NFM: Qtz, Carb, Opaq, Gyp, Fine Grains, Misc. Part.	-	-	-	-	97 %	3/9/95	Homogeneous	-	-	3/9/95	KZ
1526950CPL White sheetrock	UJ36-02	-	-	-	-	-	-	-	NFM: Qtz, Carb, Ver, Opaq, Gyp, Fine Grains, Misc. Part.	-	-	3 %	-	97 %	3/9/95	Homogeneous	-	-	3/9/95	KZ

RJ Lee Group, Inc.
Berkeley

2424 Sixth Street
Berkeley, CA 94710
Page: 1 of 5

Authorized Signature  Date Friday, March 10/1995

Phone (510) 486-8319
Fax (510) 486-0927

Table I
Polarized Light Analysis Results
Project AOC503124

Sample Number / Sample Appearance	Client Sample Number	Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Asbestos				Nonasbestos			
								Mineral	Fibrous	Synthetic	Other	Fibers	Fibers	Material	Analysis
1526951CPL Green floor tile	UN36-03	2 %	-	-	-	-	-	Wool	-	-	-	-	-	98 %	3/9/95 KZ
1526952CPL Brown linoleum and fibrous backing	UN36-04	5 %	-	-	-	-	-	NFM: Qtz, Carb, Binder, Opaq, F-Spar, Fine Grains, Misc. Part.	-	-	-	-	-	Homogeneous	3/9/95 KZ
Layer Content: Backing: 8% Chrysotile; Other Layer: <1 None Detected								NFM: Qtz, Carb, Binder, Opaq, Fine Grains, Misc. Part.	-	-	-	-	-	95 %	3/9/95 KZ
1526953CPL White sheetrock	UN37-01	-	-	-	-	-	-	10 %	-	-	-	-	-	90 %	3/9/95 KZ
1526954CPL Beige floor tile with brown adhesive	UN37-02	2 %	-	-	-	-	-	NFM: Qtz, Mag, Carb, Opaq, Gyp, Fine Grains, Misc. Part.	-	-	-	-	-	Homogeneous	3/9/95 KZ
Layer Content: Tile: 2% Chrysotile; Other Layer: <1 None Detected								NFM: Qtz, Carb, Binder, Opaq, F-Spar, Fine Grains, Misc. Part.	-	-	-	-	-	98 %	3/9/95 KZ
1526955CPL Brown cove mastic	UN37-03	-	-	-	-	-	-	NFM: Qtz, Carb, Binder, Opaq, F-Spar, Fine Grains, Misc. Part.	-	-	-	-	-	100 %	3/9/95 KZ
1526956CPL White wall plaster	UN37-04	-	-	-	-	-	-	NFM: Qtz, Carb, Hbl, F-Spar, Opaq, Gyp, Fine Grains, Misc. Part.	-	-	-	-	-	100 %	3/9/95 KZ
1526957CPL White sheetrock	UN37-05	-	-	-	-	-	-	50 %	-	-	<1 Tr %	-	-	50 %	3/9/95 KZ
1526958CPL Brown cove mastic	UN37-06	-	-	-	-	-	-	NFM: Qtz, Carb, Opaq, Gyp, Mica, Fine Grains, Misc. Part.	-	-	-	-	-	Homogeneous	3/9/95 KZ
								NFM: Qtz, Carb, Binder, Opaq, Fine Grains, Misc. Part.	-	-	-	-	-	100 %	3/9/95 KZ
									-	-	-	-	-	Homogeneous	3/9/95 KZ

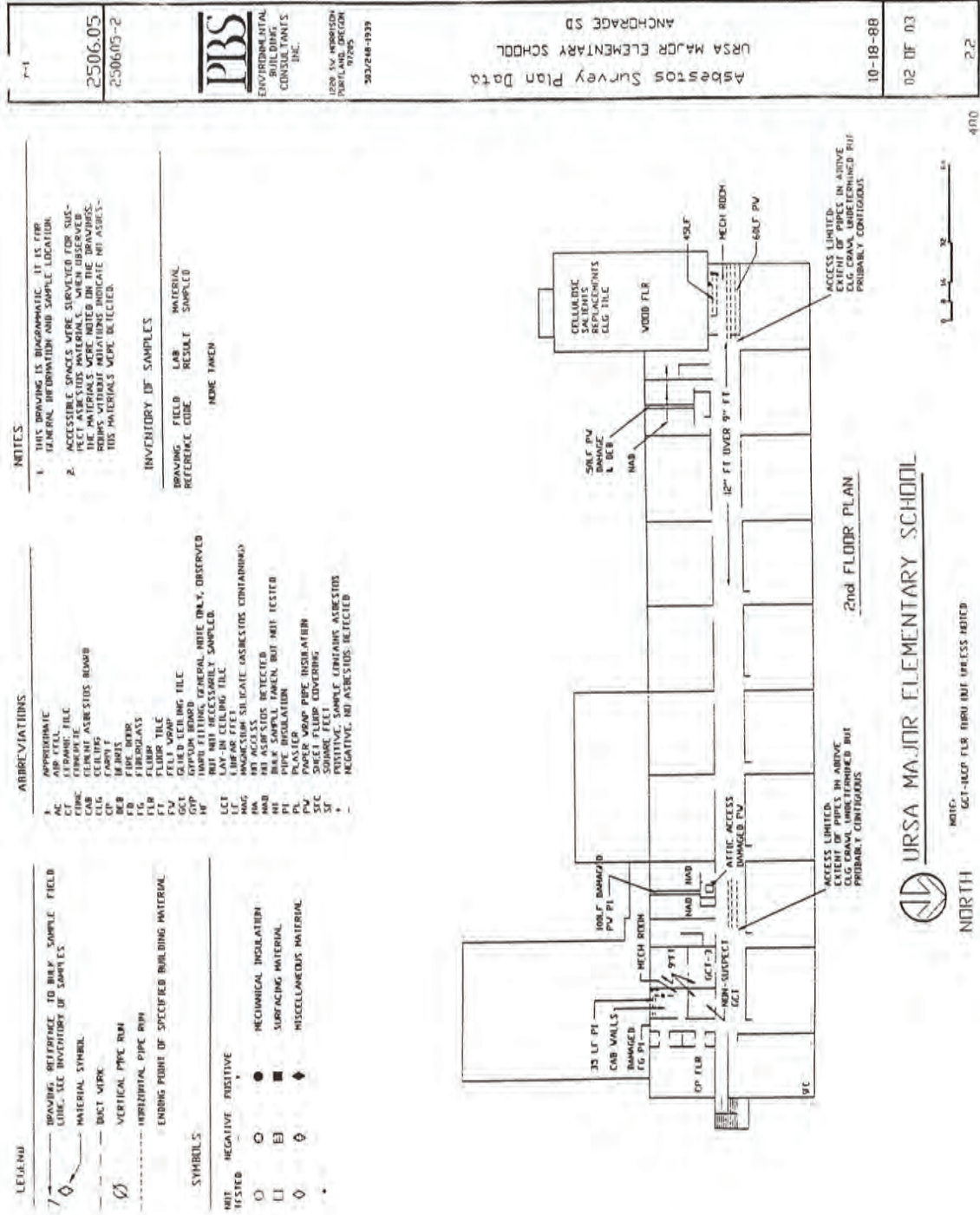
RJ Lee Group, Inc.
Berkeley

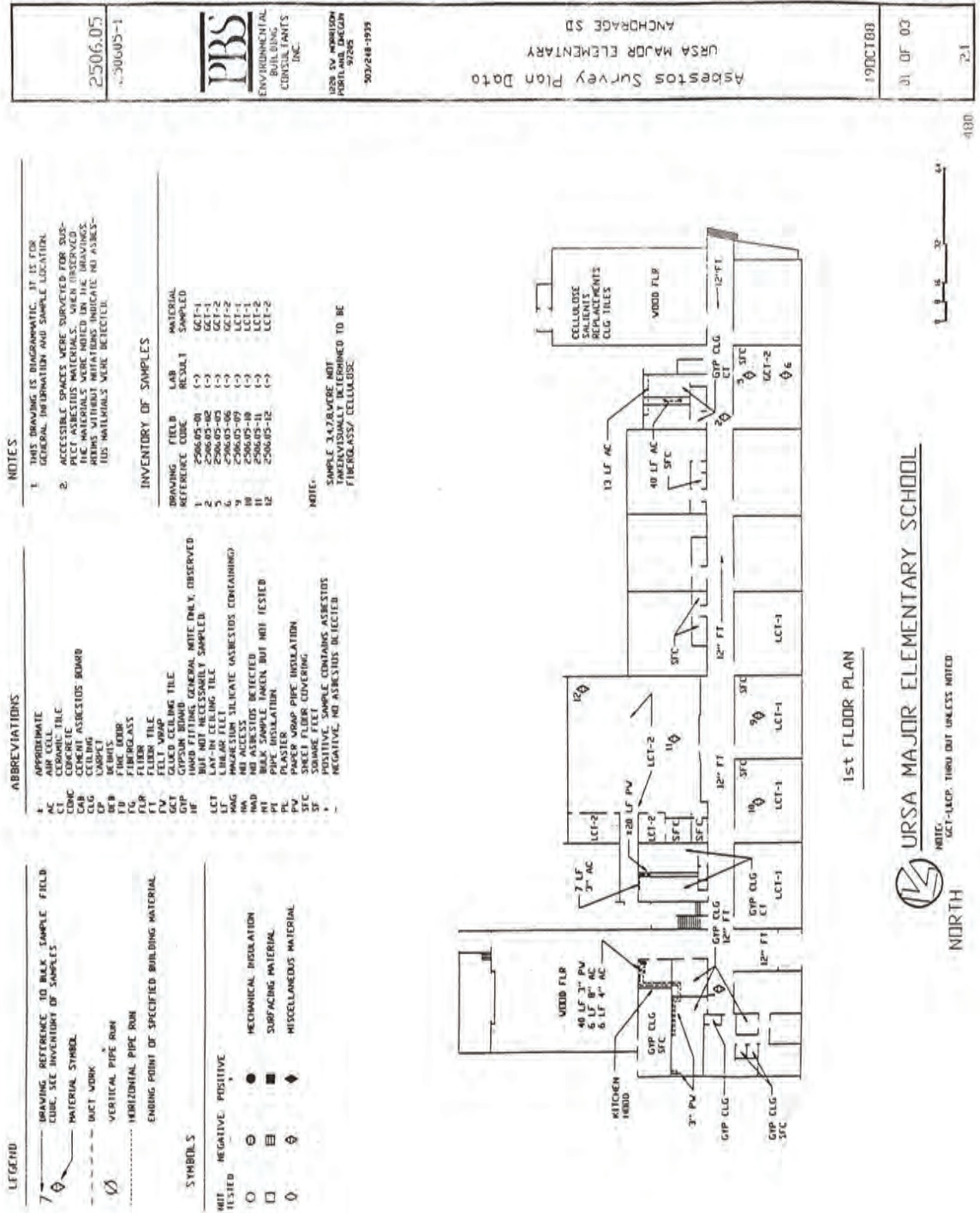
2424 Sixth Street
Berkeley, CA 94710
Page: 2 of 5

Authorized Signature  Date Friday, March 10, 1995

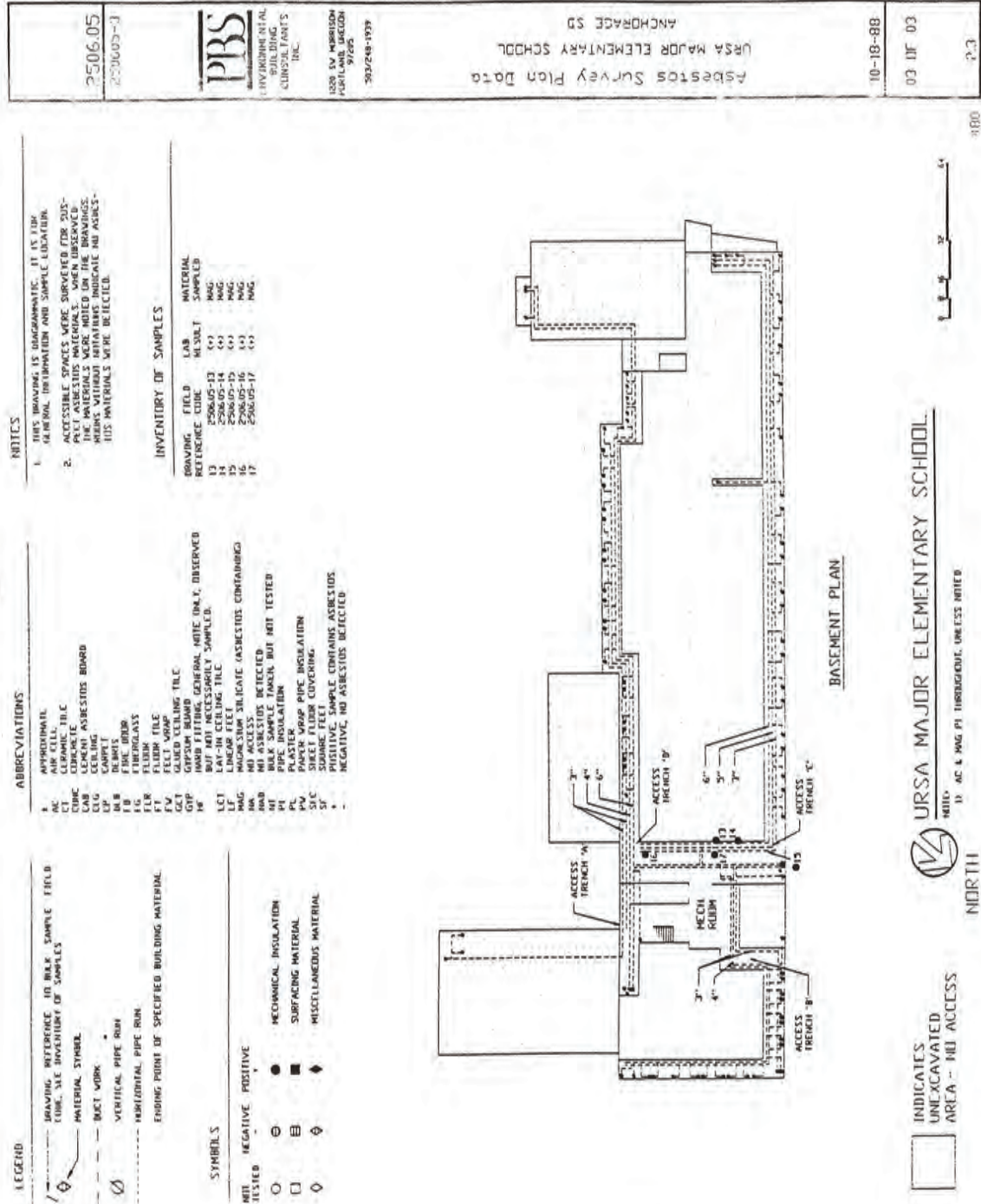
Phone (510) 486-8319
Fax (510) 486-0927

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00





HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00



HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00



Environmental Health Sciences-Ala, Inc.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
Tel # (907) 694-1383 Fax # (907) 694-1382

PAGE 1 OF 1

CHAIN OF CUSTODY RECORD / ASBESTOS SURVEY DATA SHEET

JOB NUMBER: 3603			BULK ANALYSIS REQUESTED: (PLM) TEM			
PROJECT NAME: URSA MAJOR ADDITION			SAMPLE QUANTITY: 4			
CLIENT: KROCHINA ARCH.			TURNAROUND REQUESTED: 24 HOUR			
PROJECT LOCATION: FT RICHARDSON, ANCH			SPECIAL INSTRUCTIONS: NEED RESULTS TUES MORN			
SAMPLE ID.	MATERIAL DESCRIPTION	LOCATION OF MATERIAL (PHOTO/XREF.)	MATERIAL CONDITION	MATERIAL CATEGORY	FRIABLE	ASBESTOS CONTENT
UJA-01	BROWN CONE MASTIC OLD	SAMPLE IN WEST ENTRY FIRST FLOOR (TYP)	OK	T S (M) O	F (NF)	Y (N) ND
UJA-02	YELLOW/WHITE WINDOW CAULKING	INTERIOR CAULKING IN CLASS ROOMS ETC (GLAZING)	POOR BROKEN HARD BRITTLE	T S (M) O	F (NF)	Y (N) ND
UJA-03	WHITE PLASTER	LATH & PLASTER WALL IN PIPE CHASE BETWEEN BATHROOMS	GOOD	T S (M) O	F (NF)	Y (N) ND
UJA-04	FIBERBOARD & BLACK MASTIC	INSIDE WALLS OF UTILIDOR (EXTERIOR OF BLDG)	POOR WATER DAMAGED	T S (M) O	F (NF)	Y (N) ND
				T S M O	F NF	Y N
				T S M O	F NF	Y N
		NEED RESULTS LATE TUESDAY MORN.		T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N

FROM MONDAY MOR

Asbestos Content: Y = yes, N = no

Material Category: T = thermal system insulation, S = surfacing material, M = miscellaneous, O = other; Friability: F = friable, NF = nonfriable

I certify that the listed samples were collected at the stated facility.		Relinquished By	
SIGNATURE: TONY SLATONBARKER		SIGNATURE:	
PRINTED NAME: TONY SLATONBARKER		PRINTED NAME:	
COLLECTION DATE: 5-13-94		FIRM:	
CERT. #:	5-13-94	DATE/TIME:	
SHIPPING METHOD: HAND DELIVER		Received By	
SELECTED LAB: SOLAR		SIGNATURE:	
COURIER SIGNATURE: TONY SLATONBARKER		PRINTED NAME:	
PRINTED NAME: TONY SLATONBARKER		FIRM:	
FIRM: EHS - AK		DATE/TIME:	
DATE/TIME: 5-13-94 7:30 PM		I CERTIFY THAT THE LISTED SAMPLES HAVE BEEN ANALYZED BY ME	
LABORATORY RECEIPT DATE/TIME: 5/16/94 @ 8:00 A		ACCORDING TO THE PROCEDURES SPECIFIED BY LAW. EPA 1602/R-95/116	
SIGNATURE: [Signature]		ANALYST SIGNATURE: TONY O. Barker	
		PRINTED NAME: TONY O. Barker	
		FIRM: EHS	
		DATE/TIME: 5/16/94 1:45 PM	

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

BULK SAMPLE ANALYSIS REPORT FOR ASBESTOS - LAB FORM - ANALYST COPY
POLARIZED LIGHT MICROSCOPY - PLM

24 H12 RUST

CLIENT: EHS RELINQUISHED BY: _____ CLIENT ORDER NUMBER: _____ METHOD: PLM WITH DISPERSION STAINING/OTHER _____
 RECEIVED BY: _____ PROJECT NUMBER: 3603
 DATE: _____ REPORT NUMBER: _____ (SPECIFY) _____
 CONDITION: _____ REPORT DATE: _____
 Ursa Major PROJECT: ACCEPTABLE _____ COLLECTED BY: T. SLATON BAKER
 NOT ACCEPTABLE _____ DATE SAMPLED: 5/13/94 PAGE: 1 of 2

SES LABORATORY NUMBER:	9452180 825	9453180 826	9453180 827
CLIENT ID #	UJA-01	UJA-02	UJA-03
SAMPLE LOCATION	1ST FLOOR	INTERIOR	WALL IN PIPE CHASE
ADDITIONAL INFORMATION	WEST ENTRY COVERAGE	CLASSROOM WINDOW	BETWEEN BATHS
MATERIAL DESCRIPTION:	MASTIC	CAULKING	PLASTER
GROSS SAMPLE APPEARANCE:	TEXTURE? COARSE	COARSE	ROUGH
SAMPLE HOMOGENEOUS?	YES	YES	YES
OBVIOUS LAYERS?	NO	NO	NO
COLOR?	BROWN	BEIGE-LIKE	LT. GRAY
IS SAMPLE FIBROUS?	YES	YES	YES
SAMPLE CONTAIN ASBESTOS?	N/D	N/D	N/D
TYPE AND PERCENTAGE OF ASBESTOS PRESENT:	1. CHRYSOTILE		
	2. AMOSITE		
	3. OTHER (SPECIFY)		
TOTAL PERCENT ASBESTOS PRESENT IN SAMPLE:	N/D	N/D	N/D
OTHER FIBROUS MATERIAL PRESENT:	1. FIBROUS GLASS		
(TYPE & PERCENTAGE)	2. CELLULOSE		
	3. OTHER (SPECIFY)		
PERCENTAGE OF NONFIBROUS MATERIAL PRESENT:	81% 86-93%	84-95%	82-89%
REMARKS:			
MORPHOLOGY			
EXTINCTION			
PLEOCHROISM			
REFRACTIVE INDEX - PARALLEL & PERPENDICULAR			
BIREFRINGENCE			
SIGN OF ELONGATION			

ANALYST: Genny Odague DATE: 5/16/94 APPROVED BY: _____
 Form SES #1009 Gracita O. Torrijos, Chemist - I.H.

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

SES SOLAR ENVIRONMENTAL SERVICES

1131 E. 76th Avenue Ste 102, Anchorage, Alaska 99518

BULK SAMPLE A

SIS REPORT FOR ASBESTOS - LAB FORM - ANALYSIS JPY
POLARIZED LIGHT MICROSCOPY - PLM

24 HP Puff

CLIENT: EHS RELINQUISHED BY: _____ CLIENT ORDER NUMBER: _____ METHOD: PLM WITH DISPERSION
 RECEIVED BY: _____ PROJECT NUMBER: 5603 STAINING/OTHER
 DATE: _____ REPORT NUMBER: _____ (SPECIFY)
 CONDITION: _____ REPORT DATE: _____
 PROJECT: CARSA WADJIL ACCEPTABLE: _____ COLLECTED BY: T SCATON BAKON
 NOT ACCEPTABLE: _____ DATE SAMPLED: 5/13/94 PAGE: 2 of 2

SES LABORATORY NUMBER:		9452180	828	9453180	9453180
CLIENT ID #		USA - 04			
SAMPLE LOCATION		UTIL/DOR, INSIDE			
ADDITIONAL INFORMATION		CWC			
MATERIAL DESCRIPTION:		FIBER (2)			
GROSS SAMPLE	TEXTURE?	COARSE			
APPEARANCE:	SAMPLE HOMOGENOUS?	NO			
	OBVIOUS LAYERS?	YES			
	COLOR?	Brown / Black			
	IS SAMPLE FIBROUS?	YES			
	SAMPLE CONTAIN ASBESTOS?	FIBROUS: N/A MASTIC: N/A			
TYPE AND PERCENTAGE OF ASBESTOS PRESENT:	1. CHRYSOTILE	N/A			
	2. AMOSITE	N/A			
	3. OTHER (SPECIFY)	N/A			
TOTAL PERCENT ASBESTOS PRESENT IN SAMPLE:		N/A			
OTHER FIBROUS MATERIAL PRESENT (TYPE & PERCENTAGE)	1. FIBROUS GLASS	N/A			
	2. CELLULOSE	90-95% 1-3%			
	3. OTHER (SPECIFY)	N/A			
PERCENTAGE OF NONFIBROUS MATERIAL PRESENT:		OTHER: 5-10% ASPHALT: 97-99%			
REMARKS:					
MORPHOLOGY					
EXTINCTION					
PLEOCHROISM					
REFRACTIVE INDEX - PARALLEL & PERPENDICULAR					
BIREFRINGENCE					
SIGN OF ELONGATION					

ANALYST: Donny Odugue DATE: 5/16/94

APPROVED BY: _____

SES SOLAR ENVIRONMENTAL SERVICES

1131 E. 76TH Ave., Ste. 102, Anchorage, Ak 99518

Phone (907) 349-7705/ Fax (907) 349-7944

NVLAP

Accredited Laboratory

BULK SAMPLE ANALYSIS REPORT FOR ASBESTOS
POLARIZED LIGHT MICROSCOPY - PLM

U.S. Dept. of Commerce-NIST

CLIENT: ENVIRONMENTAL HEALTH SCIENCES-AK
ATTN: TOM SWEARINGEN, PhD, PE
10928 EAGLE RIVER RD., STE. 202
EAGLE RIVER, ALASKA 99577CLIENT ORDER NUMBER: 191005
PROJECT NUMBER : 3603
REPORT NUMBER : 735
REPORT DATE : MAY 20, 1994
COLLECTED BY : T. SLATONBARKER
DATE SAMPLED : MAY 13, 1994METHOD: PLM WITH
DISPERSION
STAINING

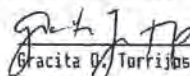
PROJECT: Ursa Major

PAGE : 1 OF 2

SES LABORATORY NUMBER:		9453180	825	9453180	826	9453180	827
CLIENT ID #	UJA-01		UJA-02		UJA-03		
SAMPLE LOCATION	1ST FLOOR WEST ENTRY		INTERIOR CLASSROOM		WALL IN PIPE CHASE		
ADDITIONAL INFORMATION	COVEBASE		WINDOW		BETWEEN BATHROOMS		
MATERIAL DESCRIPTION:	MASTIC		CAULKING		PLASTER		
GROSS SAMPLE APPEARANCE:	TEXTURE?	COARSE	COARSE	ROUGH			
	SAMPLE HOMOGENOUS?	YES	YES	YES			
	OBVIOUS LAYERS?	NO	NO	NO			
	COLOR?	BROWN	BEIGE-LIKE	LT. GRAY			
	IS SAMPLE FIBROUS?	YES	YES	YES			
	SAMPLE CONTAIN ASBESTOS?	NONE DETECTED	NONE DETECTED	NONE DETECTED			
TYPE AND PERCENTAGE OF ASBESTOS PRESENT:	1. CHRYSOTILE	NONE DETECTED	NONE DETECTED	NONE DETECTED			
	2. AMOSITE	NONE DETECTED	NONE DETECTED	NONE DETECTED			
	3. OTHER (SPECIFY)	NONE DETECTED	NONE DETECTED	NONE DETECTED			
TOTAL PERCENT ASBESTOS PRESENT IN SAMPLE:	NONE DETECTED		NONE DETECTED		NONE DETECTED		
OTHER FIBROUS MATERIAL PRESENT:	1. FIBROUS GLASS	5-10%	4-8%	1-3%			
(TYPE & PERCENTAGE)	2. CELLULOSE	2-4%	1-3%	10-15%			
	3. OTHER (SPECIFY)	NONE DETECTED	NONE DETECTED	NONE DETECTED			
PERCENTAGE OF NONFIBROUS MATERIAL PRESENT:	86-93%		89-95%		82-89%		
REMARKS:							

All quantitations are based on visual estimation unless point counting method, per NESHAP 40 CFR Part 61, is requested by client. Test report relates only to the items tested and must not be used by client to claim product endorsement by NVLAP or any Agency of the U.S. Government. Test report must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions.

REVIEWED AND APPROVED BY:


 Gracita O. Torrijos, Chemist - I.H.

DATE: MAY 20, 1994

FORM# SES 1008

SES SOLAR ENVIRONMENTAL SERVICES

1131 E. 76TH Ave., Ste. 102, Anchorage, Ak 99518

Phone (907) 349-7705/ Fax (907) 349-7944

NVLAP

Accredited Laboratory

**BULK SAMPLE ANALYSIS REPORT FOR ASBESTOS
POLARIZED LIGHT MICROSCOPY - PLM**

U.S. Dept. of Commerce-NIST

CLIENT: ENVIRONMENTAL HEALTH SCIENCES-AK
ATTN: TOM SWEARINGEN, PhD, PE
10928 EAGLE RIVER RD., STE. 202
EAGLE RIVER, ALASKA 99577

CLIENT ORDER NUMBER: 191005
PROJECT NUMBER : 3603
REPORT NUMBER : 735
REPORT DATE : MAY 20, 1994
COLLECTED BY : T. SLATONBARKER
DATE SAMPLED : MAY 13, 1994

METHOD: PLN WITH
DISPERSION
STAINING

PROJECT: Ursa Major

PAGE : 2 OF 2

SES LABORATORY NUMBER:		9453180	828	END OF REPORT
CLIENT ID #		UJA-04		
SAMPLE LOCATION		UTILIDOR , INSIDE		
ADDITIONAL INFORMATION		WALL		
MATERIAL DESCRIPTION:		FIBERBOARD		
GROSS SAMPLE	TEXTURE?	COARSE		
APPEARANCE:	SAMPLE HOMOGENOUS?	ND		
	OBVIOUS LAYERS?	YES		
	COLOR?	BROWN/BLACK		
	IS SAMPLE FIBROUS?	YES		
	SAMPLE CONTAIN ASBESTOS?	FIBERBD.-ND	MASTIC-ND	
TYPE AND PERCENTAGE OF ASBESTOS PRESENT:	1. CHRYSOTILE	ND	ND	
	2. AMOSITE	ND	ND	
	3. OTHER (SPECIFY)	ND	ND	
TOTAL PERCENT ASBESTOS PRESENT IN SAMPLE:	ND	ND		
OTHER FIBROUS MATERIAL PRESENT: (TYPE & PERCENTAGE)	1. FIBROUS GLASS	ND	ND	
	2. CELLULOSE	90-95%	1-3%	
	3. OTHER (SPECIFY)	ND	ND	
PERCENTAGE OF NONFIBROUS MATERIAL PRESENT:	5-10%	97-99%		
REMARKS:				

All quantitations are based on visual estimation unless point counting method, per NESHAP 40 CFR Part 61, is requested by client. Test report relates only to the items tested and must not be used by client to claim product endorsement by NVLAP or any Agency of the U.S. Government. Test report must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions.

REVIEWED AND APPROVED BY:

Priscilla O. Horridge
Priscilla O. Horridge, Chemist - I.H.

DATE: MAY 20, 1994

FORM# SES 1008

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

ENVIRONMENTAL HEALTH SCIENCES-ALASKA, INC.

Environmental Health Sciences-Alaska, Inc.

10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

Tel # (907) 694-1383

Fax # (907) 694-1382

PAGE 1 OF 1

CHAIN OF CUSTODY RECORD / ASBESTOS SURVEY DATA SHEET

JOB NUMBER: 3603			BULK ANALYSIS REQUESTED: (PLM) TEM			
PROJECT NAME: Ursa Major AD			SAMPLE QUANTITY: ①			
CLIENT: KEOCHINA			TURNAROUND REQUESTED: 3 DAY			
PROJECT LOCATION: FT RICH			SPECIAL INSTRUCTIONS:			
SAMPLE I.D.	MATERIAL DESCRIPTION	LOCATION OF MATERIAL (PHOTO / XREF.)	MATERIAL CONDITION	MATERIAL CATEGORY	FRIABLE	ASBESTOS CONTENT
UM-X1	WHITE JOINT COMPOUND	INTERIOR CLASSROOM SEPERATION WALLS BILINGUAL	GOOD	T (S) M O	F (NF)	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N

Asbestos Content: Y = yes, N = no

Material Category: T = thermal system insulation, S = surfacing material, M = miscellaneous, O = other; Friability: F = friable, NF = nonfriable

I Certify that the listed samples were collected at the stated facility.

SIGNATURE:

PRINTED NAME:

COLLECTION DATE:

CERT. #:

SHIPPING METHOD:

SELECTED LAB:

COURIER SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:

LABORATORY RECEIPT DATE/TIME:

SIGNATURE:

Relinquished By

SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:

Received By

SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:

I CERTIFY THAT THE LISTED SAMPLES HAVE BEEN ANALYZED BY ME ACCORDING TO THE PROCEDURES SPECIFIED BY LAW. EPA 604 893114

ANALYST SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:



SOLAR ENVIRONMENTAL SERVICES, INC.

1131 E. 76TH Ave., Ste. 102, Anchorage, Ak 99518

Phone (907) 349-7705/ Fax (907) 349-7944

NVLAP

Accredited Laboratory

U.S. Dept. of Commerce-NIST

BULK SAMPLE ANALYSIS REPORT FOR ASBESTOS POLARIZED LIGHT MICROSCOPY - PLM

CLIENT: ENVIRONMENTAL HEALTH SCIENCES-AK
ATTN: TOM SWEARINGEN
10928 EAGLE RIVER RD., STE. 202
EAGLE RIVER, AK 99577

CLIENT ORDER NUMBER: 191005
PROJECT NUMBER : 3603
REPORT NUMBER : 913
REPORT DATE : NOV. 22, 1994
COLLECTED BY : T. SLATONBARKER-CLIENT
DATE SAMPLED : NOV. 9, 1994

METHOD: EPA 600/R93116
PLM WITH
DISPERSION
STAINING

PROJECT: Ursa Major Add

PAGE : 1 OF 1

SES LABORATORY NUMBER:		9453180	1665	END OF REPORT
CLIENT ID #	CM-X1			
SAMPLE LOCATION	INTERIOR CLASSROOM			
ADDITIONAL INFORMATION				
MATERIAL DESCRIPTION:		JOINT COMPOUND		
GROSS SAMPLE	TEXTURE?	COARSE		
APPEARANCE:	SAMPLE HOMOGENOUS?	NO		
	OBVIOUS LAYERS?	YES		
	COLOR?	WHITE/WHITE		
	IS SAMPLE FIBROUS?	YES		
	SAMPLE CONTAIN ASBESTOS?	NONE DETECTED		
TYPE AND PERCENTAGE	1. CHRYSOTILE	NONE DETECTED		
OF ASBESTOS PRESENT:	2. AMOSITE	NONE DETECTED		
	3. OTHER (SPECIFY)	NONE DETECTED		
TOTAL PERCENT ASBESTOS PRESENT IN SAMPLE:		NONE DETECTED		
OTHER FIBROUS	1. FIBROUS GLASS	10-15%		
MATERIAL PRESENT:	2. CELLULOSE	15-20%		
(TYPE & PERCENTAGE)	3. OTHER (SPECIFY)	NONE DETECTED		
PERCENTAGE OF NONFIBROUS MATERIAL PRESENT:		65-75%		
REMARKS:				

All quantitations are based on visual estimation unless point counting method, per NESHAP 40 CFR Part 61, is requested by client. Test report relates only to the items tested and must not be used by client to claim product endorsement by NVLAP or any Agency of the U.S. Government. Test report must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions. Small asbestos fibers may be missed by PLM Method due to resolution limitations of the optical microscope. Therefore, None Detected and <1% PLM results cannot be guaranteed. Electron Microscopy is recommended for confirmation.

REVIEWED AND APPROVED BY:

[Signature]
 Karita D. Tarrance, Chemist - I.H.

DATE: NOV. 22, 1994

FORM# SES 1008

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

SES: GILAN ENVIRONMENTAL SERVICES, INC.

1131 E. 76th Avenue, Ste 102, Anchorage, Alaska 99518

BULK SAMPLE ANALYSIS REPORT FOR ASBESTOS - LAB FORM - ANALYST COPY

POLARIZED LIGHT MICROSCOPY PLM - PRELIMINARY RESULTS ONLY

RUSH

CLIENT: EHS RELINQUISHED BY: _____ CLIENT ORDER NUMBER: _____ METHOD: EPA 600/R-93/116
 RECEIVED BY: _____ PROJECT NUMBER: 3603 PLM WITH DISPERSION
 DATE: _____ REPORT NUMBER: _____ STAINING/OTHER
 (SPECIFY) _____
 CONDITION: _____ REPORT DATE: _____
 PROJECT: URSA MAJOR ACCEPTABLE _____ COLLECTED BY: T. SCATON BAKER
ADD NOT ACCEPTABLE _____ DATE SAMPLED: 11/9/94 PAGE: 1 of 1

SES LABORATORY NUMBER: 9492180 1665 9493180 9493180

CLIENT ID #: _____
 SAMPLE LOCATION: CM-XI
 ADDITIONAL INFORMATION: INTERIOR CLASS RM END

MATERIAL DESCRIPTION: JOINT COMPOUND

ORIGIN SAMPLE: _____
 APPEARANCE: _____
 TEXTURE? as above
 SAMPLE HOMOGENEOUS? NO
 OBVIOUS LAYERS? YES
 COLOR? WHITE / WHITE
 IS SAMPLE FIBROUS? YES
 SAMPLE CONTAIN ASBESTOS? N/D

TYPE AND PERCENTAGE OF ASBESTOS PRESENT:
 1. CHRYOTILE _____
 2. AMOSITE > N/D
 3. OTHER (SPECIFY) _____

TOTAL PERCENT ASBESTOS PRESENT IN SAMPLE: N/D

OTHER FIBROUS MATERIAL PRESENT:
 (TYPE & PERCENTAGE)
 1. FIBROUS GLASS 10-15%
 2. CELLULOSE 15-20%
 3. OTHER (SPECIFY) _____

PERCENTAGE OF NONFIBROUS MATERIAL PRESENT: CA 60 / min 40
65-75%

REMARKS: _____

MORPHOLOGY _____

EXTINCTION _____

PLEOCHROISM _____

REFRACTIVE INDEX - PARALLEL & PERPENDICULAR _____

DIFFRINGENCE _____

SIGN OF ELONGATION _____

ANALYST: Long Odom DATE: 11/10/94
 Form SES 81009

APPROVED BY: _____

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00



Environmental Health Sciences-Alaska, Inc.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
Tel # (907) 694-1383 Fax # (907) 694-1382

PAGE 1 OF 1

CHAIN OF CUSTODY RECORD / ASBESTOS SURVEY DATA SHEET

JOB NUMBER: 3603-02			BULK ANALYSIS REQUESTED: (PLM) TEM			
PROJECT NAME: Ursa Major Addition			SAMPLE QUANTITY: 1			
CLIENT: KROCHINA / ASD			TURNAROUND REQUESTED: 3 DAYS			
PROJECT LOCATION: FT RICH ANCH AK			SPECIAL INSTRUCTIONS:			
SAMPLE I.D.	MATERIAL DESCRIPTION	LOCATION OF MATERIAL (PHOTO/XREF.)	MATERIAL CONDITION	MATERIAL CATEGORY	FRIABLE	ASBESTOS CONTENT
UME-01	GREY/TAN SPRAY-ON	FIRE PROOFING ABOVE DROP CEILING IN LIBRARY	GOOD	(T) S M O	(F) NF	Y (N) N/D
		ADDITION		T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N

Asbestos Content: Y = yes, N = no

Material Category: T = thermal system insulation, S = surfacing material, M = miscellaneous, O = other, Friability: F = friable, NF = nonfriable

I certify that the listed samples were collected at the stated facility.		Relinquished By	
SIGNATURE: <i>[Signature]</i>		SIGNATURE:	
PRINTED NAME: TONY SLATON BARKER		PRINTED NAME:	
COLLECTION DATE: 4-20-95		FIRM:	
CERT. #:	ASHERA #: T-5270-13	DATE/TIME:	
SHIPPING METHOD: COURIER		Received By	
SELECTED LAB: SOLAR		SIGNATURE:	
COURIER SIGNATURE:		PRINTED NAME:	
PRINTED NAME:		FIRM:	
FIRM:		DATE/TIME:	
DATE/TIME:		I CERTIFY THAT THE LISTED SAMPLES HAVE BEEN ANALYZED BY ME	
LABORATORY RECEIPT DATE/TIME:		ACCORDING TO THE PROCEDURES SPECIFIED BY LAW.	
SIGNATURE:		ANALYST SIGNATURE:	
		PRINTED NAME:	
		FIRM:	
		DATE/TIME:	



SOLAR ENVIRONMENTAL SERVICES, INC.

1131 E. 76TH Ave., Ste. 102, Anchorage, Ak 99518
Phone (907) 349-7705/ Fax (907) 349-7944

NVLAP

Accredited Laboratory

U.S. Dept. of Commerce-NIST

CERTIFICATE OF ANALYSIS

CLIENT: Environmental Health Sciences-Ak
ATTN: Tom Swearingen
10928 Eagle River Rd., Ste. 202
Eagle River, AK 99577

CLIENT ORDER#: 191005
PROJECT NAME: Ursa Major Additional
PROJECT NO: 3603-02
REPORT NO: 1042
REPORT DATE: April 28, 1995
COLLECTED BY: T. Slatonbarker-Client
DATE SAMPLED: April 20, 1995

PAGE: 1 of 1

BULK ASBESTOS ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY (PLM) EPA METHOD 600R93116

LAB.#	CLIENT#	DESCRIPTION/ LOCATION	%ASBESTOS PRESENT	%OTHER FIBROUS MATERIALS	%NONFIBROUS MATERIALS
95531BO0646	UME-01	Fire proofing; above drop ceiling in library	None Detected	5-10%Fibrous Glass 15-25%Cellulose	65-80%



All quantitations are based on visual estimation unless point counting method, per NESHAP 40 CFR Part 61, is requested by client. Test report relates only to the items tested and must not be used by client to claim product endorsement by NVLAP or any Agency of the U.S. Government. Test report must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions. Small asbestos fibers may be missed by PLM Method due to resolution limitations of the optical microscope. Therefore, None Detected and <1% PLM results cannot be guaranteed. Transmission Electron Microscopy (TEM) is recommended for confirmation.

REVIEWED AND APPROVED BY:

Gracita C. Torrijos
Gracita C. Torrijos, Chemist-I.H.

Date: April 28, 1995

FORM# SES 1008 REVISED 1/10/95

CLIENT: EHS

PROJECT: UADA MAJOR ADDITION

SER LAB NO.	9533 IBO	6046	9533 IBO	9533 IBO	9533 IBO	9533 IBO	9533 IBO
CLIENT ID NO:		UWE - 01					
LOCATION:							
ADDITIONAL INFORMATION:							
MATERIAL DESCRIPTION:		Fiber Proofing					
GROSS SAMPLE APPEARANCE:		Orange					
TEXTURE?		Y/N					
SAMPLE HOMOGENEOUS?		N					
OBSVIOUS LAYERS?		Lt. green					
COLOR?		Light					
% SAMPLE FIBROUS?		60%					
SAMPLE CONTAIN ASBESTOS?							
TYPE & % OF ASBESTOS PRESENT:							
CHRYSOITILE		7 N/D					
AMOSITE							
OTHER(SPECIFY)							
TOTAL % ASBESTOS PRESENT:		N/D					
OTHER FIBROUS MATERIAL							
PRESENT: (TYPE & %)		5-10% 15-20%					
FIBROUS GLASS							
CELLULOSE							
OTHER(SPECIFY)							
% OF NON-FIBROUS MATERIAL:		65-80% wood					
REMARKS:		not sample for analysis					
MORPHOLOGY							
EXTINCTION							
POLARIZATION							
REFRACTIVE INDEX - PARALLEL & PERPENDICULAR							
BIREFERENCE							
SIGN OF ELONGATION							

DATE: 11/26/85

APPROVED BY: _____

REACTIVITY: TOXICOLOGICAL CHEMISTRY-TEL

TELETYPE: _____

Small molecule fibers may be missed by PLM Method due to the randomization of the optical microscopes. Therefore, None Detected and <1% PLM results cannot be guaranteed. Transmission Electron Microscopy (TEM) is recommended for confirmation.


EHS ALASKA
INCORPORATED

Environmental Health Sciences-Alaska, Inc.

10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

Tel # (907) 694-1383

Fax # (907) 694-1382

PAGE 1 OF 1

CHAIN OF CUSTODY RECORD / ASBESTOS SURVEY DATA SHEET

JOB NUMBER: <u>3603-01-03</u>			BULK ANALYSIS REQUESTED: <u>(PLM)</u> TEM			
PROJECT NAME: <u>Ursa Major Elem.</u>			SAMPLE QUANTITY: <u>2</u>			
CLIENT:			TURNAROUND REQUESTED: <u>(RUSH)</u>			
PROJECT LOCATION: <u>Gym Storage Room</u>			SPECIAL INSTRUCTIONS: <u>FAX ASAP Tony SB</u>			
SAMPLE I.D.	MATERIAL DESCRIPTION	LOCATION OF MATERIAL (PHOTO / XREF.)	MATERIAL CONDITION	MATERIAL CATEGORY T S (M) O	FRIABLE F (NF)	ASBESTOS CONTENT (Y) N
URMA. 626-M1	wall mastic - (Black) thin coat @ 4' level	tarry	Peeling	T S (M) O	F (NF)	(Y) N 10-20%
				T S M O	F NF	Y N
				T S M O	F NF	Y N
URMA. 626-M2	floor mastic - (Black) thin coat	troweled on	under tan 1/2 x 1/2 VAT and red 9 x 9 VAT	T S (M) O	F NF	Y N N/D
		Stair Landing	1/2 floor sample	T S M O	F NF	Y N
		7' Door	mastic on floor	T S M O	F NF	Y N
		6' wall	Sample	T S M O	F NF	Y N
		7' door	Painted wall	T S M O	F NF	Y N
		plaster	Gym	T S M O	F NF	Y N
		~ 8' Ceiling		T S M O	F NF	Y N
				T S M O	F NF	Y N

Asbestos Content: Y = yes, N = no

Material Category: T = thermal system insulation, S = surfacing material, M = miscellaneous, O = other; Friability: F = friable, NF = nonfriable

I certify that the listed samples were collected at the stated facility.

SIGNATURE: Cheryl E. YatesPRINTED NAME: Cheryl E. YatesCOLLECTION DATE: 6-26-95 10:45 AMCERT. #: 99 AHERA #: T573709SHIPPING METHOD: Hand deliverySELECTED LAB: Solar EniroCOURIER SIGNATURE: C. Yates as above

PRINTED NAME:

FIRM:

DATE/TIME: 6-26-95 11:15 AMLABORATORY RECEIPT DATE/TIME: SBSIGNATURE: [Signature]

Relinquished By

SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:

Received By

SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:

I CERTIFY THAT THE LISTED SAMPLES HAVE BEEN ANALYZED BY ME

ACCORDING TO THE PROCEDURES SPECIFIED BY LAW.

ANALYST SIGNATURE:

PRINTED NAME:



SOLAR ENVIRONMENTAL SERVICES, INC.

Chain of Custody Record

Client EHS Project Name URSA MAJOR -
 Address _____ Project Number 3603-01-03
 City _____ State _____ Zip _____ Purchase Order # _____
 Phone _____ Fax _____ Collected by C. Yates
 Turnaround time Quick Date/Time Collected 6/26/95 @ 10:45 AM
 Total Number of samples _____ Air Bulk 2 Page 1 of 1

Analytical Request

Sample Number	Type	Method/Parameter	Condition of sample
URMA.626M-1 (wall)	Bulk	PLM	Good
URMA.626M-2 (Floor)	↓	↓	↓

Method/Parameter

Asbestos Analysis

Organic Analysis ☐Inorganic Analysis ☐☐ PLM ☐ PCM ☐ TEM☐ PLM w/ Point Count☐ Other

Specify _____

Relinquished by: Cheryl E. Yates Received by: J. T. Jones
 Print Name Cheryl E. Yates Print Name James O. T. Jones
 Date/Time 6-26-95 11:15 Date/Time 6/26/95 @ 11:17 AM

Special Instructions/Comments: _____

Test results relate only to the items tested and must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions.

1131 E. 76Th Ave. Ste 102, Anchorage, AK 99518
 Form # SES 1004 Revised 10.5.94

Phone: (907) 349-7705 Fax: (907) 349-7944

**SOLAR ENVIRONMENTAL SERVICES, INC.**

1131 E. 76TH Ave., Ste. 102, Anchorage, Ak 99518

Phone (907) 349-7705/ Fax (907) 349-7944

NVLAP

Accredited Laboratory

U.S. Dept. of Commerce-NIST

CERTIFICATE OF ANALYSIS

CLIENT: Environmental Health Sciences-Ak
ATTN: Tom Swearingen
10928 Eagle River Rd., Ste. 202
Eagle River, AK 99577

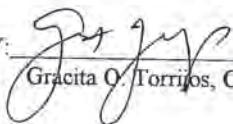
CLIENT ORDER#:
PROJECT NAME: Ursa Major Elem. School
PROJECT NO: 626-M1
REPORT NO: 1068
REPORT DATE: June 14, 1995
COLLECTED BY: C. Yates-Client
DATE SAMPLED: June 26, 1995

PAGE: 1 of 1**BULK ASBESTOS ANALYSIS REPORT**
POLARIZED LIGHT MICROSCOPY (PLM) EPA METHOD 600R93116

LAB.#	CLIENT#	DESCRIPTION/ LOCATION	%ASBESTOS PRESENT	%OTHER FIBROUS MATERIALS	%NONFIBROUS MATERIALS
95531BO856	URMA-626-M1	Wall mastic-black thin coat at 4' level (tarry)	10-20% Chrysotile	<1% Cellulose	80-90%
95531BO857	URMA-626-M2	Floor mastic-(trowled on) tarry black thin coat	None Detected	<1% Cellulose	99-100%

All quantitations are based on visual estimation unless point counting method, per NESHAP 40 CFR Part 61, is requested by client. Test report relates only to the items tested and must not be used by client to claim product endorsement by NVLAP or any Agency of the U.S. Government. Test report must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions. Small asbestos fibers may be missed by PLM Method due to resolution limitations of the optical microscope. Therefore, None Detected and <1% PLM results cannot be guaranteed. Transmission Electron Microscopy (TEM) is recommended for confirmation.

REVIEWED AND APPROVED BY:


Gracita O. Torrijos, Chemist-I.H.

Date: August 7, 1995

FORM# SES 1008 REVISED 1/10/95

SOLAR ENVIRONMENTAL SERVICES, INC. 1131 E. 76th Ave., Ste. 102, Anchorage, AK 99518 Tel: 907-349-7705 Fax: 907-349-7706

BULK SAMPLE ANALYSIS REPORT FOR ASBESTOS- LAB FORM- ANALYST COPY
POLARIZED LIGHT MICROSCOPY (PLM) EPA METHOD 600/93116
PRELIMINARY RESULTS ONLY

CLIENT: EHS

PROJECT: URSA MAJOR elem. School

RELINQUISHED BY: _____
RECEIVED BY: _____
DATE: _____
CONDITION: ☒ ACCEPTABLE
NOT ACCEPTABLE: _____

CLIENT ORDER# _____
PROJECT NO.: _____
REPORT NO.: _____
REPORT DATE: _____
COLLECTED BY: E. J. J. J.
DATE SAMPLED: 6/26/98

SES LAB NO.	95531180	856	95531180	857	95531180	95531180	95531180	95531180
CLIENT ID NO.								
LOCATION:								
ADDITIONAL INFORMATION:								
MATERIAL DESCRIPTION:								
GROSS SAMPLE APPEARANCE:								
TEXTURE:								
SAMPLE HOMOGENOUS?								
OBVIOUS LAYERS?								
COLOR:								
IS SAMPLE FIBROUS?								
SAMPLE CONTAIN ASBESTOS?								
TYPE & % OF ASBESTOS PRESENT:								
CHRYSOOTILE								
AMOSITE								
OTHER(SPECIFY)								
TOTAL % ASBESTOS PRESENT:								
OTHER FIBROUS MATERIAL PRESENT: (TYPE & %)								
FIBROUS GLASS								
CELLULOSE								
OTHER(SPECIFY)								
% OF NON-FIBROUS MATERIAL:								
REMARKS:								
MICROPHOTOGRAPHY								
EXTINCTION								
PLEIOCHROISM								
REFRACTIVE INDEX - PARALLEL & PERPENDICULAR								
BIREFRINGENCE								
SIGN OF ELONGATION								

ANALYST: JP DATE: 6/26/98 APPROVED BY: _____

CRISTINA G. TORRES, CHEMIST, LAM

and report reflects only to the items tested and must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions. Small asbestos fibers may be missed by PLM Method due to limitations of the optical microscope. Therefore, None Detected and < 1% PLM results cannot be guaranteed.

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

JUN-29-95 THU 10:36

RJ LTM GROUP, INC.

FAX NO. 41273 '98

P.03

EHS ALASKA
INCORPORATED

Environmental Health Sciences-Alaska, Inc.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
Tel # (907) 694-1383 Fax # (907) 694-1382

AOC 506 647

PAGE 1 OF 1

CHAIN OF CUSTODY RECORD / ASBESTOS SURVEY DATA SHEET

JOB NUMBER: 3603-03		BULK ANALYSIS REQUESTED: (PLM) IEM				
PROJECT NAME: Ursa Major Addition		SAMPLE QUANTITY: 1				
CLIENT: KROCHNA - ASD		TURNAROUND REQUESTED: 6 HR. ASAP				
PROJECT LOCATION: FT RICH		SPECIAL INSTRUCTIONS:				
SAMPLE I.D.	MATERIAL DESCRIPTION	LOCATION OF MATERIAL (PHOTO / XREF.)	MATERIAL CONDITION	MATERIAL CATEGORY	FRIABLE	ASBESTOS CONTENT
UM628-01	YELLOW & BLACK MASTIC	BEHIND MARLITE ON GWS IN MAIN HALL BT OFFICES	GOOD	T S M O	F NF	Y N
				T S M O	F NF	Y N
		* TEST YELLOW MASTIC + BLACK MASTIC SEPERATELY *		T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N

Asbestos Content: Y = yes, N = no

Material Category: T = thermal system insulation, S = surfacing material, M = miscellaneous, O = other; Friability: F = friable, NF = nonfriable

I certify that the listed samples were collected at the stated facility.

SIGNATURE: *Tony Slaton Barker*
PRINTED NAME: TONY SLATONBARKER

Relinquished By

SIGNATURE:

PRINTED NAME:

COLLECTION DATE: 6-28-95

FIRM:

CERT. #

AHERA #: T-5270-13

DATE/TIME:

SHIPPING METHOD:

FED EX

Received By

SIGNATURE:

PRINTED NAME:

SELECTED LAB:

RJ LEE - MUNROEVILLE

FIRM:

COURIER

SIGNATURE:

DATE/TIME:

PRINTED NAME:

FIRM:

I CERTIFY THAT THE LISTED SAMPLES HAVE BEEN ANALYZED BY ME ACCORDING TO THE PROCEDURES SPECIFIED BY LAW.

ANALYST SIGNATURE:

LABORATORY RECEIPT DATE/TIME:

6-29-95 9 AM

PRINTED NAME:

SIGNATURE:

Sean Thom

FIRM:

DATE/TIME:

RJ LeeGroup, Inc.

2424 Sixth St. • Berkeley, CA 94710
(510) 486-8319 • FAX (510) 486-0927

June 29, 1995

Mr. Tony Slatonbarker
Environmental Health Sciences - Alaska, Inc.
10928 Eagle River Road, Suite 202
Eagle River, AK 99577-8052

RE: PLM Standard Asbestos Analysis Results for Samples as Shown on Table I
RJLeeGroup, Inc. Job No.: AOC506647
Client P.O./Project Number: 3603-03
Client Job Name/Location: Ft Rich. - URSA MAJOR Addition

Dear Mr. Slatonbarker:

Enclosed are the results from the polarized light microscopy (PLM) asbestos analysis of the above referenced sample(s). Sample(s) were analyzed in accordance with guidelines set forth in the EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples, 40 CFR, Pt. 763, Subpt. F, App. A (7-1-87) (EPA 600/M4-82-020).

Table I lists each sample identification number, gross sample description, sample location, type(s) and concentration of asbestos, type(s) and concentration of nonasbestos fibers, major components and concentration of nonfibrous material (NFM), sample run date, analyst, sample homogeneity, and a layer breakdown if applicable. All concentrations are given in area percents (visual estimation).

RJ Lee Group, Inc. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) (NVLAP Participant Number 1208-2) for bulk asbestos fiber analysis (PLM), and by the California Department of Health Services, Environmental Laboratory Accreditation Program (CALELAP) for bulk asbestos analysis. Neither the NVLAP Accreditation of this laboratory nor this report may be used to claim product endorsement by NVLAP or any agency of the United States government.

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the sample(s) covered by this report, RJ Lee Group will store the sample(s) for a period of ninety (90) days before discarding. A shipping and handling fee will be assessed for the return of any sample(s).

If you have any questions on this report or if RJ Lee Group, Inc. can be of further assistance, please do not hesitate to call.

Sincerely,



Elena Skovorodnikova
Geologist

FOR

ES/dtm

Enclosure



Monroeville, PA • Berkeley, CA • Washington, D.C. • Raleigh, NC • Houston, TX
Chopra-Lee, Inc., Grand Island, NY

Table I
Polarized Light Analysis Results
Project AOC506647

Sample Number / Sample Appearance	Client Sample Number	Asbestos-----Nonasbestos-----													
		Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Wool	Glass	Fibers	Fibers	Material	Analyst	Run Date
1707222CPL	UM628-01	-	-	-	-	-	-	<1 Tr %	-	-	-	-	99+ %	6/29/95	WHP
Yellow mastic and black mastic		NFM: Qtz, Binder, Resin, Misc. Part.										Homogeneous			



RJ Lee Group, Inc.
Berkeley

2424 Sixth Street
Berkeley, CA 94710
Page: 1 of 1

Authorized Signature _____
Date Thursday, June 29, 1995

Dat Nam

Phone (510) 486-8319
Fax (510) 486-0927

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00


EHS ALASKA
INCORPORATED

Environmental Health Sciences-Alaska, Inc.

10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

(907) 694-1383 • (907) 694-1382 fax

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA				Page 1 of 1
FIELD COLLECTION DATE: 4-2-96		JOB #: 3603-01-03		MATERIAL TYPE: (Circle) <u>ASBESTOS</u> LEAD
PROJECT NAME: ASD FT RICH URSA NAT		BULK ANALYSIS REQUESTED: (Circle) <u>PLM</u> / PLM DUST / TEM BULK / LEAD TCLP / LEAD PPM		
FACILITY: URSA MAJOR ELEM.		DISPOSAL: <u>USUAL</u>		TURNAROUND: <u>PUSH</u>
SPECIAL INSTRUCTIONS: COLLECTED BY (signature): <u>[Signature]</u> PRINTED NAME: <u>JOHN SLATON BARKER</u> CERT# _____ AHERA# _____ SHIPPING METHOD _____ COURIER (signature) _____ DATE/TIME _____ SELECTED LABORATORY: <u>SOLAR</u> SAMPLES ACCEPTED BY: <u>Tommy ODS160+</u> DATE/TIME: <u>4/3/96 4:00 PM</u> ANALYST'S SIGNATURE: <u>[Signature]</u> DATE: <u>4/3/96 4:00 AM</u> COMMENTS:				
SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/XREF)	RESULTS	
1. UJ96-01	RED GREY FIBROUS MATERIAL ON WALL LIKE TROWELED OF FIRE PROOF	DEBRIS ON FLOOR		
MATL. CONDITION: <u>GOOD</u> FAIR POOR WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) <u>CONTACT: ✓</u> AIR: _____ VIBRATION: _____				
2. UJ96-02	GREY HARD CEMENTIOUS SCRATCH COAT	KITCHEN WALL IN MP ROOM BEHIND FLUFFY FIBROUS LAYER		
MATL. CONDITION: <u>GOOD</u> FAIR POOR WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) <u>CONTACT: ✓</u> AIR: _____ VIBRATION: _____				
3. UJ96-03	SAME 01	PRABLE FLUFFY STUFF ON WALL		
MATL. CONDITION: <u>GOOD</u> FAIR POOR WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____				
4. UJ96-04	SAME 01	DEBRIS ON FLOOR		
MATL. CONDITION: <u>GOOD</u> FAIR POOR WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____				
5.				
MATL. CONDITION: <u>GOOD</u> FAIR POOR WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____				
6.				
MATL. CONDITION: <u>GOOD</u> FAIR POOR WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____				
7.				
MATL. CONDITION: <u>GOOD</u> FAIR POOR WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____				
8.				
MATL. CONDITION: <u>GOOD</u> FAIR POOR WATER: _____ DAMAGE POTENTIAL: (LO, MED, HI) AIR: _____ VIBRATION: _____ CONTACT: _____				

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA

EHS-9/95



SOLAR ENVIRONMENTAL SERVICES, INC.

1131 E. 76TH Ave., Ste. 102, Anchorage, Ak 99518
Phone (907) 349-7705/ Fax (907) 349-7944

NVLAP

Accredited Laboratory
U.S. Dept. of Commerce-NIST

CERTIFICATE OF ANALYSIS

CLIENT: Environmental Health Sciences-Ak
Attn: Tom Swearingen
10928 Eagle River Rd., Ste. 202
Eagle River, Ak 99577

CLIENT ORDER#: 191005
PROJECT NAME: ASD- Ft. Rich Ursa Major
PROJECT NO: 3603-01-03
REPORT NO: 1176
REPORT DATE: April 5, 1996
COLLECTED BY: T. Slatonbarker-Client
DATE SAMPLED: April 02, 1996

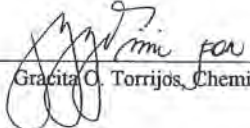
PAGE: 1 of 1

ASBESTOS QUALITATIVE DUST ANALYSIS SUMMARY POLARIZED LIGHT MICROSCOPY (PLM) WITH DISPERSION STAINING

Lab.#	Client#	Description/Location	Asbestos Present	Other Materials Present
96531BO0477	UJ96-01	On floor/debris	Chrysotile	Cellulose
96531BO0480	UJ96-04	On floor/debris	Chrysotile	Cellulose
96531BO0479QC	UJ96-03	QUALITY CONTROL	5-10%Chrysotile	45-50%Cellulose - QC-PASSED 40-50%Non-Fibr.Mat.
END OF REPORT				

Test report relates only to the items tested and must not be used by client to claim product endorsement by NVLAP or any Agency of the U.S. Government. Test Report must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions. Small fibers may be missed by PLM Method due to resolution limitations of the optical microscope. Therefore, None Detected results cannot be guaranteed. Electron Microscopy is recommended for confirmation.

REVIEWED AND APPROVED BY:


Gracita C. Torrijos, Chemist-I.H.

Date: April 05, 1996

FORM# SES 1031



SOLAR ENVIRONMENTAL SERVICES, INC.

1131 E. 76TH Ave., Ste. 102, Anchorage, Ak 99518

Phone (907) 349-7705/ Fax (907) 349-7944



Accredited Laboratory

U.S. Dept. of Commerce-NIST

CERTIFICATE OF ANALYSIS

CLIENT: Environmental Health Sciences-Ak
ATTN: Tom Swearingen
10928 Eagle River Rd., Ste. 202
Eagle River, AK 99577

CLIENT ORDER#: 191005
PROJECT NAME: ASD- Ft. Rich Ursa Major
PROJECT NO: 3603-01-03
REPORT NO: 1177
REPORT DATE: April 05, 1996
COLLECTED BY: T. Slatonbarker-Client
DATE SAMPLED: April 02, 1996

PAGE: 1 of 1

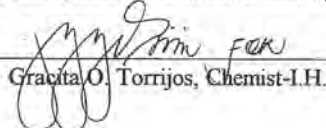
BULK ASBESTOS ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY (PLM) EPA METHOD 600R93116

LAB.#	CLIENT#	DESCRIPTION/ LOCATION	%ASBESTOS PRESENT	%OTHER FIBROUS MATERIALS	%NONFIBROUS MATERIALS
96531BO0478	UJ96-02	Kitchen wall/ cementitious	None Detected	1-3%Fibrous Glass 3-5%Cellulose	92-96%
96531BO0479	UJ96-03	On wall/ fireproofing-like	5-10%Chrysotile	35-40%Cellulose	50-60%
96531BO0479QC	UJ96-03	QUALITY CONTROL	5-10%Chrysotile	45-50%Cellulose	40-50%QC-PASSED

END OF REPORT

All quantitations are based on visual estimation unless point counting method, per NESHAP 40 CFR Part 61, is requested by client. Test report relates only to the items tested and must not be used by client to claim product endorsement by NVLAP or any Agency of the U.S. Government. Test report must not be reproduced except in full without the approval of SES and subject to SES general terms and conditions. Small asbestos fibers may be missed by PLM Method due to resolution limitations of the optical microscope. Therefore, None Detected and <1% PLM results cannot be guaranteed. Transmission Electron Microscopy (TEM) is recommended for confirmation.

REVIEWED AND APPROVED BY:


Gracita O. Torrijos, Chemist-I.H.

Date: April 05, 1996

FORM# SES 100R REVISED 1/10/95

QUALITY ASSURANCE

CONSTRUCTION INSPECTION
ROOF INVESTIGATIONS

8200 EAST THIRD AVE.
ANCHORAGE, AK 99504
(907) 333-4988

Al Kim
Krochina Architects
3501 Denali
Anchorage, Ak 99503

15 February 1995

Subject: Ursa Major School, Roof Cores

This is a report of the roof cores taken at the Ursa Major Elementary School. The purpose of the cores was to determine the moisture content of the roof insulation, in anticipation that a new membrane may be installed over the existing membrane.

The school is located on Fort Richardson, near Anchorage. The investigation was done on Tuesday, 14 February 1995. Weather was windy, clear and 20°F. There was ice on the roofs but little snow, with the exception of 18" of snow around the perimeter, coinciding with the roof overhang. There was 24" of snow on the library roof. The presence of a layer of ice over the roofs limited a visual examination of the condition of the membrane. The presence of 18" of snow around the perimeter, coinciding with the roof overhang, prevented a visual examination of the condition of the edge flashing.

Test cuts and observation reveal the roofing systems are as follows:

MULTIPURPOSE ROOM ROOF. Test Cut 1 indicates Built-Up-Roof (BUR) of felts and asphalt, 2" of Perlite insulation, BUR vapor retarder, concrete deck. The insulation was dry. Test cut was taken thru a blister, about 24" in width and 1" high. No other blisters were observed. The top portion of the BUR contained a fabric material. All other material reinforcing the asphalt appeared to be standard roofing felts. Using fabric and asphalt over an existing BUR is a standard resurfacing.

2 STORY CLASSROOM ROOF. Test Cuts 2, 3, & 4 indicate BUR directly applied to concrete. **There is no insulation in this roof system.** The top portion of the BUR contained a fabric material. All other material reinforcing the asphalt appeared to be standard roofing felts. In the area of Test Cut 3 several wrinkles in the BUR membrane protruding above the ice were observed.

LIBRARY ROOF. No test cuts were made in this roof. The membrane is an exposed fully adhered EPDM membrane. This roof also continues over a narrow eyebrow roof going to the north towards, and abutting, the Multipurpose room.

EYEBROW ROOF (south of library roof). Test Cut 5 indicates BUR, 1/2" Fintex, 2" Expanded polystyrene, BUR vapor retarder, concrete deck. The insulation was dry. The wall flashings on this roof are in poor condition. Torch-on asphalt sheets have been installed over the original flashings. The sheets of roofing material are not sealed along the top of the flashings, and no bleed out of asphalt was observed on the vertical seams. This is an indication the material was not heated enough and that a trowel was not used to do the detail edge sealing. It is recommended the wall flashings be removed and replaced.

ART ROOM ROOF. Test Cut 6 indicates BUR, 2" of Perlite insulation, BUR vapor retarder, concrete deck. The insulation was dry. The top portion of the BUR contained a fabric material. All other material reinforcing the asphalt appeared to be standard roofing felts.

ENTRANCE ROOFS. There are four entrance roofs. The southeast entrance roof into the art room was not observed, other than to note it appears to be supported up by two wooden posts. No recommendations.

The southeast entrance concrete roof into the two story classrooms was covered with ice. There appears to be an asphalt product waterproofing the top of the roof. No deterioration of the concrete was observed. No recommendations.

The south entrance concrete roof spills water over the west corner of this roof and onto the outside of the building. The concrete in the building wall is cracked and may be loose. It is recommended the concrete be inspected and repaired if found to be loose. It is further recommended this roof be reroofed with Kemperol.

The northwest entrance concrete roof (main entrance). Two cracks thru the entire width of this small concrete roof have peeling paint along the cracks. This indicates water may be passing thru the concrete, and could be affecting any reinforcing that may be in the concrete. No rust stains were observed. It is recommended this roof be reroofed with Kemperol.

Kemperol roofing product is a two component polyester liquid, applied soaked into a punched fleece. The material molds to any shape at the time of application and bonds to nearly all other surfaces, except EPDM. The material is long lasting, with a 20 year warranty on a complete reroof, and should provide a durable, very low maintenance roof. It's self flashing feature eliminates the need to redo flashing and metal counterflashing in reroof applications. This would be a preferred roof membrane compared to the high maintenance asphalt products and flashings usually in place over flat entrance roofs.

If you have any questions, please call.



Thomas A. Sexton



TRANSMITTAL LETTER AND CUSTODY RECEIPT

EHS-591

DATE: 5-25-91	JOB NO.: 3208-01
ORGANIZATION: ASD	
FACILITY: Kennedy, Ursa Major	
Ursa Minor	

This form, signed and dated by each individual who has had custody of the samples, shall accompany the samples to the testing laboratory. The original signed copy shall be returned to EHS-Alaska as an attachment to the laboratory report. A duplicate copy of the form shall accompany the samples to the archive.

TRANSMITTED HERewith ARE THE FOLLOWING:			
QUANTITY	TYPE	DESCRIPTION (INCLUDE ALL SAMPLE NUMBERS)	
16	Bulk	KA-01 to KV-04 / MIA-01 to MIS-06 / MAA-01 to MAR-06	
		Please keep Reports of Samples separate	
I certify that the above listed samples were taken by me at the above facility. Sample descriptions are on the attached Field Survey Data Sheets.			
SIGNATURE	DATE	PRINTED NAME	AHERA NUMBER
Robert French	3/23/91	Bob French	MPI-
COURIER RECEIPT: I acknowledge receipt of the above listed samples and certify that the quantity of samples and sample numbers are correct except as follows:			
[☒] No exceptions taken [] _____			
SIGNATURE	DATE	PRINTED NAME	ORGANIZATION
Jane H. Trenon	5-23-91	JANE L. TRENON	AOC
LABORATORY RECEIPT: I acknowledge receipt of the above listed samples and certify that the quantity of samples and sample numbers are correct except as follows:			
[] No exceptions taken [] _____			
SIGNATURE	DATE	PRINTED NAME	ORGANIZATION
Jane H. Trenon	5-23-91	JANE L. TRENON	AOC
ANALYST RECEIPT: I acknowledge receipt of the above listed samples and certify that the quantity of samples and sample numbers are correct except as follows:			
[☒] No exceptions taken [] _____			
SIGNATURE	DATE	PRINTED NAME	ORGANIZATION
Tony Obispo	5/25/91	TONY OPSIGUE	AOC
ANALYST REPORT CERTIFICATION: I certify that the above listed samples have been analyzed by me according to the procedures specified by law and that laboratory report, Report No. 22,20,21, dated 05-24-91, is accurate in all respects.			
SIGNATURE	DATE	PRINTED NAME	LABORATORY NO.
Tony Obispo	5/25/91	TONY OPSIGUE	AOC
ANALYST RECEIPT: I acknowledge receipt of the above listed samples and certify that the quantity of samples and sample numbers are correct except as follows:			
[] No exceptions taken [] _____			
SIGNATURE	DATE	PRINTED NAME	ORGANIZATION

Alaska Quality Control & Technical Services, Ltd.
Professional Engineering & Testing Services Division
907 East Dowling Road, Suite 18
Anchorage, Alaska 99518
907/561-2400 FAX/363-1318



Chain of Custody Record

CLIENT NUMBER	RECEIVED	TIME	COLLECTED BY
	SUBJECT	4-15-12 M	CHESTER

TURNAROUND TIME ☐ REG. ☒ 24 HR ☐ 4 HR ☐ 8 HR ☐ 16 HR

TYPE HAZARDOUS QTY 10 CLIENTID # KA-031 TO BAIDAROV

TYPE HAZARDOUS QTY 10 CLIENTID # KA-031 TO BAIDAROV

FOR BULK SAMPLES ONLY: POINT COUNT AUTHORIZED ☐ YES ☐ NO

SAMPLE NUMBER	DATE (mm/dd/yy)	TIME (24 HR)	SAMPLE LOCATION/IDENTIFICATION	TEST METHOD	MATERIAL DESCRIPTION	CONDITION ON RECEIPT
KA-01				REM	HAZARDOUS SAMPLE	GOOD
KA-02						
KA-03						
KA-04						
KA-05						
KA-06						
KA-07						
KA-08						
KA-09						
KA-10						

SPECIAL INSTRUCTIONS		POSSIBLE HAZARD TO LAB		Certificate of Analysis	
RELINQUISH OF CUSTODY: I hereby relinquish custody of the above samples and certify that the quantity of samples and sample numbers are correct: Shipped Via: <u>UPS</u> Air Bill Retained: <u>NO</u> Signature: <u>[Signature]</u> Date: <u>5-23-97</u> Printed Name: <u>Paul Brunch</u> ORGANIZATION: <u>EHS-PA</u>		DISPOSITION:		I Certify that the above listed samples have been analyzed by me according to the procedures specified by law and that laboratory Report No. <u> </u> dated <u> </u> is accurate in all respects.	
LABORATORY RECEIPT: I acknowledge receipt of the above listed samples and certify that the quantity and sample numbers are correct except as follows: [] No Exception [] Exceptions: Signature: <u>[Signature]</u> Date: <u>5-23-97</u> Printed Name: <u>Paul Brunch</u> ORGANIZATION: <u>EHS-PA</u>		DISPOSED BY: <u>[Signature]</u> DATE: <u> </u> TIME: <u> </u>		Signature: <u> </u> Date: <u> </u>	

		FIELD SURVEY DATA SHEET		SHEET 1 OF 2	
FACILITY: <i>URSA MAJOR</i>			BLDG NO:		
ADDRESS:					
SAMPLE NUMBER <i>MAA-01</i>	FUNCTIONAL AREA: <i>Hallway</i>		LOCATION: <i>Wall 6, Office</i>		
	HOMOGENEOUS MATL: <i>Gyp/mud/tape</i>		TYPE: <i>M</i>	FRIABLE: <i>N</i>	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <i>C V A W</i>		PHOTO: <i>11</i>	RESULTS: <i>2% C</i>	
X REF:					
COMMENTS:					
SAMPLE NUMBER <i>MAA-02</i>	FUNCTIONAL AREA: <i>West West</i>		LOCATION: <i>Wall above Bldg 11, inside Dr</i>		
	HOMOGENEOUS MATL: <i>Gyp/Mud</i>		TYPE:	FRIABLE:	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <i>C V A W</i>		PHOTO: <i>12</i>	RESULTS: <i>2% C</i>	
X REF:					
COMMENTS: <i>at Nail - no tape</i>					
SAMPLE NUMBER <i>MAS-03</i>	FUNCTIONAL AREA: <i>Teaching lounge</i>		LOCATION: <i>above store</i>		
	HOMOGENEOUS MATL: <i>12x12 FBG clay tile</i>		TYPE: <i>M</i>	FRIABLE: <i>Y</i>	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <i>C V A W</i>		PHOTO:	RESULTS: <i>N/D</i>	
X REF:					
COMMENTS: <i>fracture pattern is less - look - more porous than other tiles</i>					
SAMPLE NUMBER <i>MAS-04</i>	FUNCTIONAL AREA: <i>Class Rm</i>		LOCATION: <i>at soff.</i>		
	HOMOGENEOUS MATL: <i>FBG 12x24</i>		TYPE: <i>M</i>	FRIABLE: <i>Y</i>	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <i>C V A W</i>		PHOTO:	RESULTS: <i>N/D</i>	
X REF:					
COMMENTS:					
SAMPLE NUMBER <i>MAS-05</i>	FUNCTIONAL AREA: <i>Teaching lounge</i>		LOCATION: <i>clg</i>		
	HOMOGENEOUS MATL: <i>Mortar to clay tile</i>		TYPE: <i>M</i>	FRIABLE: <i>N</i>	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <i>C V A W</i>		PHOTO: <i>14</i>	RESULTS: <i>N/D</i>	
X REF:					
COMMENTS:					
INSPECTOR: <i>Bob French</i>			DATE: <i>5-23-91</i>		
SIGNATURE: <i>Robert French</i>			AHERA NO: <i>MPI-91-516</i>		

See Table I-2 of AHERA QA Manual for key to coded entries.

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

		FIELD SURVEY DATA SHEET		SHEET 2 OF 2	
FACILITY: <u>URSA MAJOR</u>			BLDG NO:		
ADDRESS:					
SAMPLE NUMBER <u>MA-R-06</u>	FUNCTIONAL AREA: <u>Roof above TL</u>		LOCATION: <u>Near Vent</u>		
	HOMOGENEOUS MATL: <u>Top Patch</u>		TYPE: <u>X</u>	FRIABLE: <u>N</u>	
	CONDITION: <u>N</u>		ACCESS:	REF DWG:	
	POTENTIAL: <u>C V A W</u>		PHOTO:	RESULTS: <u>10% C</u>	
X REF:					
COMMENTS:					
SAMPLE NUMBER	FUNCTIONAL AREA:		LOCATION:		
	HOMOGENEOUS MATL:		TYPE:	FRIABLE:	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <u>C V A W</u>		PHOTO:	RESULTS:	
X REF:					
COMMENTS:					
SAMPLE NUMBER	FUNCTIONAL AREA:		LOCATION:		
	HOMOGENEOUS MATL:		TYPE:	FRIABLE:	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <u>C V A W</u>		PHOTO:	RESULTS:	
X REF:					
COMMENTS:					
SAMPLE NUMBER	FUNCTIONAL AREA:		LOCATION:		
	HOMOGENEOUS MATL:		TYPE:	FRIABLE:	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <u>C V A W</u>		PHOTO:	RESULTS:	
X REF:					
COMMENTS:					
SAMPLE NUMBER	FUNCTIONAL AREA:		LOCATION:		
	HOMOGENEOUS MATL:		TYPE:	FRIABLE:	
	CONDITION:		ACCESS:	REF DWG:	
	POTENTIAL: <u>C V A W</u>		PHOTO:	RESULTS:	
X REF:					
COMMENTS:					
INSPECTOR:			DATE:		
SIGNATURE:			AHERA NO:		

See Table E-1 of AHERA QA Manual for key to coded entries.

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

AQ Professional Engineering & Testing Services

907 East Dowling Road Suite 18, Anchorage, Alaska 99518
907/561-2400

FAX 907/563-1318

REC'D MAY 31 1991

C ENVIRONMENTAL HEALTH SCIENCES AK
L ATTN: TOM SWEARINGEN
I 16635 CENTERFIELD DRIVE
E EAGLE RIVER, AK 99577
N
T

BULK SAMPLE ANALYSIS FOR ASBESTOS

Analytical method: EPA
recommended PLM (Polarized
Light Microscopy with
dispersion staining

United States Department of Commerce
National Institute of Standards and Technology

NVLAP

ORDER NO. 19889111	REPORT NO. 21/T	DATE 05/28/91	PAGE 1 OF 2	TURNAROUND TIME: 24-HR RUSH	PROJECT : 3288-01/7 BASE SCHOOLS SAMPLED BY : CLIENT
-----------------------	--------------------	------------------	----------------	--------------------------------	---

Lab no.	B91-0757	B91-0758	B91-0759
Additional Identification Information (sample location, Client ID)	MAA-01 HALLWAY WALL BY OFFICE	MAA-02 WEST VEST WALL ABV BB/IN DR	MAS-03 TEACHER'S LOUNGE ABOVE STORE
Type of Material	GYP/MUD/TAPE	GYP/MUD	CEILING TILE
Gross Appearance/Texture Is it homogeneous? Are there obvious layers? Is it fibrous? What color is it?	HARD NO YES YES BROWN/CREAM/WHITE	HARD NO YES YES CREAM/BROWN/WHITE	FLUFFY NO YES YES WHITE/BROWN
IS ASBESTOS PRESENT?	YES	YES	NONE DETECTED
ASBESTOS (Type and Percent) 1. Chrysotile 2. Amosite 3. Crocidolite 4. Other (specify)	1. 1-2% 2. NONE DETECTED 3. NONE DETECTED 4. NONE DETECTED	1. 1-2% 2. NONE DETECTED 3. NONE DETECTED 4. NONE DETECTED	1. NONE DETECTED 2. NONE DETECTED 3. NONE DETECTED 4. NONE DETECTED
Total Percent Asbestos Present	1-2%	1-2%	NONE DETECTED
Other Fibrous Materials Present: (type and percentage) 1. Fibrous Glass 2. Cellulose 3. Other (specify)	1. NONE DETECTED 2. 35-45% 3. NONE DETECTED	1. NONE DETECTED 2. 4-6% 3. NONE DETECTED	1. 55-65% 2. 1-5% 3. NONE DETECTED
Nonfibrous Material Percent	Not Analyzed	Not Analyzed	Not Analyzed
COMMENTS:	WITH CREAM & BROWN PAINT-LIKE MATERIAL. ASBESTOS FOUND IN MUD MATERIAL.	WITH CREAM PAINT-LIKE MATERIAL. ASBESTOS FOUND IN MUD MATERIAL.	WITH WHITE PAINT-LIKE MATERIAL.
All quantitations are based on visual estimation by PLM unless point counting, per NESHAP 40 CFR 61, is specified by client.			

Results relate only to items tested. No part of this report may be reproduced except in full with approval of Alaska Quality Control. Report may not be used to claim product endorsement by NVLAP or any government agency.

Tony O. Sique
T. ODSIGUE - Analyst - 05/25/91

Gracita D. Forrijos
Gracita D. Forrijos, Analytical Services Director

AQC Professional Engineering & Testing Services

907 East Dowling Road Suite 18, Anchorage, Alaska 99518
907/561-2400

FAX 907/563-1318

C ENVIRONMENTAL HEALTH SCIENCES AK
L ATTN: TOM SWEARINGEN
1 16635 CENTERFIELD DRIVE
E EAGLE RIVER, AK 99577
N
T

BULK SAMPLE ANALYSIS FOR ASBESTOS

Analytical method: EPA
recommended PLM (Polarized
Light Microscopy with
dispersion staining

United States Department of Commerce
National Institute of Standards and Technology

NVLAP

ORDER NO. 19889111	REPORT NO. 21/T	DATE 05/28/91	PAGE 2 OF 2	TURNAROUND TIME: 24-HR RUSH	PROJECT : 3200-01/7 BASE SCHOOLS SAMPLED BY : CLIENT
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Lab no.	B91-8760	B91-8761	B91-8762
Additional Identification Information (sample location, Client ID)	MAS-04 CLASSROOM	MAS-05 TEACHER'S LOUNGE CEILING	MAR-06 ROOF ABOVE TL NEAR VENT
Type of Material	FBD	MASTIC	TAR & PATCH
Gross Appearance/Texture Is it homogeneous? Are there obvious layers? Is it fibrous? What color is it?	FLUFFY NO YES YES WHITE/YELLOW	BRITTLE NO YES YES YELLOW/BROWN	TARRY YES YES YES BLACK
IS ASBESTOS PRESENT?	NONE DETECTED	NONE DETECTED	YES
ASBESTOS (Type and Percent) 1. Chrysotile 2. Amosite 3. Crocidolite 4. Other (specify)	1. NONE DETECTED 2. NONE DETECTED 3. NONE DETECTED 4. NONE DETECTED	1. NONE DETECTED 2. NONE DETECTED 3. NONE DETECTED 4. NONE DETECTED	1. 5-10% 2. NONE DETECTED 3. NONE DETECTED 4. NONE DETECTED
Total Percent Asbestos Present	NONE DETECTED	NONE DETECTED	5-10%
Other Fibrous Materials Present: (type and percentage) 1. Fibrous Glass 2. Cellulose 3. Other (specify)	1. 55-65% 2. 1-5% 3. NONE DETECTED	1. 5-10% 2. 1-5% 3. NONE DETECTED	1. NONE DETECTED 2. 1-5% 3. NONE DETECTED
Nonfibrous Material Percent	Not Analyzed	Not Analyzed	Not Analyzed
COMMENTS:	WITH WHITE PAINT-LIKE MATERIAL.		
All quantitations are based on visual estimation by PLM unless point counting, per NESHAP 40 CFR 61, is specified by client.			

Results relate only to items tested. No part of this report may be reproduced except in full with approval of Alaska Quality Control. Report may not be used to claim product endorsement by NVLAP or any government agency.

Tony Osigue
T. OSIGUE - Analyst - 05/25/91

Gracita D. Torrijos
Gracita D. Torrijos, Analytical Services Director

APPENDIX B

Dust Sampling for Asbestos Field Survey Data Sheets and Laboratory Reports


EHS ALASKA
INCORPORATED

EHS-Alaska, Inc.

10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

(907) 694-1383 phone • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA				Page <u>1</u> of <u>2</u>
FIELD COLLECTION DATE: <u>4-5-02</u>		JOB #: <u>5679-01</u>		BULK ANALYSIS REQUESTED: (circle) PLM / TEM BULK / LEAD TCLP / LEAD PPM
PROJECT NAME: <u>ASD URSA MAJOR DUSTY DUCTS</u>			MATERIAL TYPE: (circle) <u>ASBESTOS</u>	TOTAL LEAD QUANTITIES: <u>12</u>
FACILITY: <u>URSA MAJOR E.S.</u>		DISPOSAL: <u>ROUTINE</u>	TURNAROUND: <u>WED 4-10-02</u>	
SPECIAL INSTRUCTIONS:				
COLLECTED BY (signature) <u>B. L. ...</u> PRINTED NAME <u>BRAND L. ...</u> CERT# <u>T-7577-0</u> AHERA# SHIPPING METHOD <u>852987018738</u> COURIER (signature) DATE/TIME		SELECTED LABORATORY <u>IATL</u> SAMPLES ACCEPTED BY DATE/TIME <u>4.10.02</u> ANALYST'S SIGNATURE DATE <u>4.10.02</u>		
		COMMENTS: <u>ANALYZE BY ASTM D5755-95</u> <u>APR - 8 2002</u>		
	SAMPLE ID	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION / COMMENTS (INCLUDING PHOTO / XREF)	RESULTS
0.5	<u>1479825</u> 1479825 MATERIAL CONDITION: GOOD FAIR POOR	<u>10cm x 10cm DUST ON F.C.</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>CUV IN CR 165</u>	<u><7,400</u> 17.22
0.5	<u>1479826</u> 1479826 MATERIAL CONDITION: GOOD FAIR POOR	<u>10cm x 10cm DUST ON METAL</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>CUV, FAN HOUSING CR# 223</u>	<u><7,400</u> ~17.35
0.75	<u>1479827</u> 1479827 MATERIAL CONDITION: GOOD FAIR POOR	<u>10cm x 10cm DUST ON METAL</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>EXHAUST DUCT FROM CR 228</u>	<u><9,930</u> ~17.57
0.5	<u>1479828</u> 1479828 MATERIAL CONDITION: GOOD FAIR POOR	<u>10cm x 10cm DUST ON METAL</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>RETURN AIR DUCT ON N SIDE OF IMC.</u>	<u>22,200</u>
0.75	<u>1479829</u> 1479829 MATERIAL CONDITION: GOOD FAIR POOR	<u>10cm x 10cm DUST ON METAL</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>LAST SUPPLY DUCT AT W. W. OF IMC.</u>	<u>14,800</u> ~17.05
0.25	<u>1479830</u> 1479830 MATERIAL CONDITION: GOOD FAIR POOR	<u>10cm x 10cm DUST ON METAL</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>RA DUCT AT N.W. OF MPR.</u>	<u>481,000</u>
0.75	<u>1479831</u> 1479831 MATERIAL CONDITION: GOOD FAIR POOR	<u>10cm x 10cm DUST ON METAL Fan Housing</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>Fan Housing Supply Side Attch-3 (MPR) S</u>	<u>49,300</u> 20.25
0.25	<u>1479832</u> 1479832 MATERIAL CONDITION: GOOD FAIR POOR	<u>10cm x 10cm DUST ON METAL</u> DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	<u>Attch-3 (MPR) SUPPLY DOWNSTREAM OF HEAT</u>	<u>185,000</u> ~20.32

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA

EHS-10/00


EHS ALASKA
 INCORPORATED

EHS-Alaska, Inc.

10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

(907) 694-1383 phone • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

FIELD SURVEY DATA (continued)				Page <u>2</u> of <u>2</u>
PROJECT NAME: <u>Ursa Major Dusty Duct Sample</u>		FACILITY: <u>Ursa Major Elementary School</u>		
JOB NUMBER: <u>5679-01</u>		DATE: <u>4-5-02</u>	COLLECTED BY: <u>Brian Morgan</u>	
SAMPLE ID	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS	
1.5 UT4502-D09 1479833 MATERIAL CONDITION: GOOD FAIR POOR	10cm x 10cm DUST ON METAL DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	R/A & O/A MIX PIENVIN. GYM UNIT	4,930 21:11	
0.5 UT4502-D10 1479834 MATERIAL CONDITION: GOOD FAIR POOR	10cm x 10cm DUST ON METAL DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	GYM UNIT SUPPLY AT FAN	22,200 21:14	
0.75 UT4502-D11 1479835 MATERIAL CONDITION: GOOD FAIR POOR	10cm x 10cm DUST ON METAL DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ART ROOM AHU R/A UPSTREAM OF FILTERS	9,870 21:43	
0.5 UT4502-D12 MATERIAL CONDITION: GOOD FAIR POOR	10cm x 10cm DUST ON METAL DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	ART ROOM AHU SUPPLY AT FAN	59,200 21:49	
END				
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			
MATERIAL CONDITION: GOOD FAIR POOR	DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:			

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/23/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01

TEM DUST SAMPLE ANALYSIS SUMMARY

<u>Lab No</u>	<u>Client No.</u>	<u>Location</u>	<u>Result</u>	<u>Asbestos Types</u>
1479825	UJ4502-D01	CUV In Cr 165	<7400.0 Structures/cm2	None Detected
1479826	UJ4502-D02	CUV, Fan Housing Cr #223	<7400.0 Structures/cm2	None Detected
1479827	UJ4502-D03	Exhaust Duct From Cr #228	<4930.0 Structures/cm2	None Detected
1479828	UJ4502-D04	Return Air Duct On N. Side Of IMC	22200.0000 Structures/cm2	Chrysotile Actinolite
1479829	UJ4502-D05	Last Supply Duct At NW Of IMC	14800.0000 Structures/cm2	Chrysotile

RECEIVED

MAY 02 2002

Member AIHA Analysts Registry AIHA Lab No. 444 NIST-NVLAP No. 1165 NYS-DOH No. 11021

Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis
Of Settled Dust By TEM For Asbestos

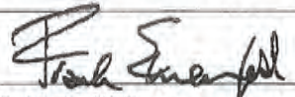
This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.

Comments: TEM settled dust results are dependent on several factors including sampling technique. IATL can supply references that may aid in the interpretation of these results.

Analysis Performed By: 
Craig A. Uska, AIAA-AAR 4861

Date: APR 10 2002

Approved By:


Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01

TEM DUST SAMPLE ANALYSIS SUMMARY

<u>Lab No</u>	<u>Client No.</u>	<u>Location</u>	<u>Result</u>	<u>Asbestos Types</u>
1479830	UJ4502-D06	RA Duct At NW Of MPR	481000.0000 Structures/cm2	Chrysotile
1479831	UJ4502-D07	Fan Housing Supply Side	49300.0000 Structures/cm2	Chrysotile
1479832	UJ4502-D08	AHU-3; MPR Supply Downstream Of Heat	185000.0000 Structures/cm2	Chrysotile
1479833	UJ4502-D09	RA & OA Mix Plenum Gym Unit	4930.0000 Structures/cm2	Chrysotile

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Member AIHA Analysts Registry AIHA Lab No. 444 NIST-NVLAP No. 1165 EHS - ALASKA, INC. NYS DOH No. 11021

Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis
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Comments: TEM settled dust results are dependent on several factors including sampling technique. IATL can supply references that may aid in the interpretation of these results.

Analysis Performed By:


Craig A. Lisks, AIHA-AAR 4801

Date: APR 10 2002

Approved By:


Frank H. Ehrenfeld, III
Laboratory Director

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Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01

TEM DUST SAMPLE ANALYSIS SUMMARY

<u>Lab No</u>	<u>Client No.</u>	<u>Location</u>	<u>Result</u>	<u>Asbestos Types</u>
1479834	UJ4502-D10	Gym Unit Supply At Fan	22200.0000 Structures/cm2	Chrysotile
1479835	UJ4502-D11	Art Room AHU RA Upstream Of Filters	9870.0000 Structures/cm2	Chrysotile
1479836	UJ4502-D12	Art Room AHU Supply At Fan	59200.0000 Structures/cm2	Chrysotile

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Member AIHA Analysts Registry AIHA Lab No. 444 NIST-NVLAP No. 1165 NYS-DOH No. 11021

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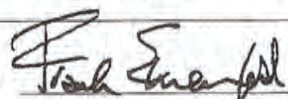
Comments: TEM settled dust results are dependent on several factors including sampling technique. IATL can supply references that may aid in the interpretation of these results.

Analysis Performed By:


Craig A. Uska, AIHA-AAR 4881

Date: APR 11 2002

Approved By:


Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data**

Client:	EHS Alaska Incorporated 10928 Eagle River Rd., Ste 202 Eagle River AK 99577	Report Date:	04/24/2002
		Project:	ASD;URSA;MajorDustyDucts;4-5-02
		Project No.:	5679-01

IATL No.:	1479825	Description / Location:	CUV In Cr 165
Client Sample No.:	UJ4502-D01		

Area Sampled:	100.0 cm2
Volume Filtered:	0.5 Milliliters
Dilution Factor:	50.0 Milliliters
Filter:	MCE
Filter Size:	962 mm2
Pore Size:	0.45 um

ANALYSIS RESULTS

Grid Openings:	10
Opening Area:	0.013 mm2
Area Analyzed:	0.130 mm2
Detection Limit:	7400.0000 Structures/cm2
Sensitivity:	7.7 Structures/mm2

ASBESTOS STRUCTURES:

	None Detected
< 5 Microns:	None Detected
>= 5 Microns:	None Detected
Concentration:	<7400.0 Structures/cm2
Fibers/Area:	<7.7 Structures/mm2
Types Identified:	None Detected

NON-ASBESTOS STRUCT:

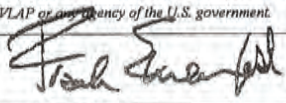
	4
Concentration:	29600.0000 Structures/cm2
Fibers/Area:	30.8 Structures/mm2
Types Identified:	Silica (Si) Silicate (Si,Ca,Fe)

Micrograph No.:
X-Ray Spectrum No.:**RECEIVED**
MAY 02 2002
EHS - ALASKA, INC.Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos
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Analysis Performed By:


Craig A. Liska, AIAA-AAR 4881

Approved By:


Frank B. Ehrenfeld, III
Laboratory Director

Date: APR 10 2002

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

Transmission Electron Microscopy - Sample Data

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/24/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01

IATL No.: 1479826
Client Sample No.: UJ4502-D02

Description / Location: CUV, Fan Housing
Cr #223

Area Sampled: 100.0 cm²
Volume Filtered: 0.5 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 um

ANALYSIS RESULTS

Grid Openings: 10
Opening Area: 0.013 mm²
Area Analyzed: 0.130 mm²
Detection Limit: 7400,0000 Structures/cm²
Sensitivity: 7.7 Structures/mm²

ASBESTOS STRUCTURES:

None Detected
< 5 Microns: None Detected
≥ 5 Microns: None Detected
Concentration: <7400.0 Structures/cm²
Fibers/Area: <7.7 Structures/mm²
Types Identified: None Detected

NON-ASBESTOS STRUCT:

None Detected
Concentration: <7400.0 Structures/cm²
Fibers/Area: <7.7 Structures/mm²
Types Identified: None Detected

Micrograph No.:
X-Ray Spectrum No.:

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EHS - ALASKA, INC.

Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos

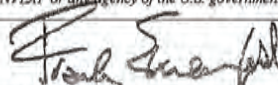
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Analysis Performed By: 
Craig A. Liska, AIA-AAR 4801

Date:

APR 10 2002

Approved By:

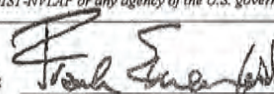

Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/24/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479827
Client Sample No.: UJ4502-D03**Description / Location:** Exhaust Duct From
Cr #228**Area Sampled:** 100.0 cm²
Volume Filtered: 0.8 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 μ m**ANALYSIS RESULTS****Grid Openings:** 10
Opening Area: 0.013 mm²
Area Analyzed: 0.130 mm²
Detection Limit: 4930.0000 Structures/cm²
Sensitivity: 7.7 Structures/mm²**ASBESTOS STRUCTURES:****None Detected**
< 5 Microns: None Detected
>= 5 Microns: None Detected
Concentration: <4930.0 Structures/cm²
Fibers/Area: <7.7 Structures/mm²
Types Identified: None Detected**NON-ASBESTOS STRUCT:****2**
Concentration: 9870.0000 Structures/cm²
Fibers/Area: 15.4 Structures/mm²
Types Identified: Silica (Si)**Micrograph No.:**
X-Ray Spectrum No.:**RECEIVED****MAY 02 2002****EHS - ALASKA, INC.****Methodology:** ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.***Analysis Performed By:**

Craig A. Ulaka, AIAA-AAR 4801

Date:

APR 10 2002

Approved By:Frank E. Ehrenfeld, III
Laboratory Director

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Telephone: 856-231-9449 Fax: 856-231-9818

Transmission Electron Microscopy - Sample Data

Client:	EHS Alaska Incorporated 10928 Eagle River Rd., Ste 202 Eagle River AK 99577	Report Date:	04/23/2002
		Project:	ASD;URSA;MajorDustyDucts;4-5-02
		Project No.:	5679-01

IATL No.:	1479828	Description / Location:	Return Air Duct On
Client Sample No.:	UJ4502-D04		N. Side Of IMC

Area Sampled:	100.0 cm2
Volume Filtered:	0.5 Milliliters
Dilution Factor:	50.0 Milliliters
Filter:	MCE
Filter Size:	962 mm2
Pore Size:	0.45 um

ANALYSIS RESULTS

Grid Openings:	10
Opening Area:	0.013 mm2
Area Analyzed:	0.130 mm2
Detection Limit:	7400.0000 Structures/cm2
Sensitivity:	7.7 Structures/mm2

ASBESTOS STRUCTURES:

	3
< 5 Microns:	3
>= 5 Microns:	None Detected
Concentration:	22200.0000 Structures/cm2
Fibers/Area:	23.100 Structures/mm2
Types Identified:	Chrysotile
	Actinolite

NON-ASBESTOS STRUCT:

	4
Concentration:	29600.0000 Structures/cm2
Fibers/Area:	30.8 Structures/mm2
Types Identified:	Silica (Si)
	Kaolin-Clay (Si,Al)

Micrograph No.:
X-Ray Spectrum No.:

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Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos

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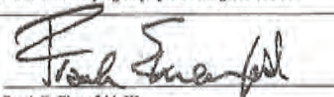
Analysis Performed By:


Craig A. Uska, AIHA-AAR 4881

Date:

APR 10 2002

Approved By:


Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479829
Client Sample No.: UJ4502-D05**Description / Location:** Last Supply Duct
At NW Of IMC**Area Sampled:** 100.0 cm2
Volume Filtered: 0.8 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm2
Pore Size: 0.45 um**ANALYSIS RESULTS****Grid Openings:** 10
Opening Area: 0.013 mm2
Area Analyzed: 0.130 mm2
Detection Limit: 4933.0000 Structures/cm2
Sensitivity: 7.7 Structures/mm2**ASBESTOS STRUCTURES:****< 5 Microns:** 3
>= 5 Microns: None Detected
Concentration: 14800.0000 Structures/cm2
Fibers/Area: 23.100 Structures/mm2
Types Identified: Chrysotile**NON-ASBESTOS STRUCT:****Concentration:** 4
19700.0000 Structures/cm2
Fibers/Area: 30.8 Structures/mm2
Types Identified: Silica (Si)
Titanium**Micrograph No.:**
X-Ray Spectrum No.:**RECEIVED**

MAY 02 2002

EHS - ALASKA, INC.**Methodology:** ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos
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Craig A. Uska, AHA-AAR 4861

Approved By:Frank E. Ehrenfeld, III
Laboratory Director**Date:**

APR 10 2002

IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479830
Client Sample No.: UJ4502-D06**Description / Location:** RA Duct At NW
Of MPR**Area Sampled:** 100.0 cm²
Volume Filtered: 0.3 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 um**ANALYSIS RESULTS****Grid Openings:** 4
Opening Area: 0.013 mm²
Area Analyzed: 0.052 mm²
Detection Limit: 37000.0000 Structures/cm²
Sensitivity: 19.2 Structures/mm²**ASBESTOS STRUCTURES:****< 5 Microns:** 13
>= 5 Microns: 12
Concentration: 481000.0000 Structures/cm²
Fibers/Area: 250.000 Structures/mm²
Types Identified: Chrysotile**NON-ASBESTOS STRUCT:****Concentration:** 66
Fibers/Area: 244000.0000 Structures/cm²
Types Identified: Silica (Si)
Titanium**Micrograph No.:****X-Ray Spectrum No.:****RECEIVED**

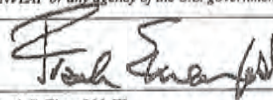
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Craig A. Ulska, AIHA-AAR 4861

Date:

APR 10 2002

Approved By:Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479831
Client Sample No.: UJ4502-D07**Description / Location:** Fan Housing
Supply SideArea Sampled: 100.0 cm2
Volume Filtered: 0.8 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm2
Pore Size: 0.45 um**ANALYSIS RESULTS**Grid Openings: 4
Opening Area: 0.013 mm2
Area Analyzed: 0.052 mm2
Detection Limit: 12300.0000 Structures/cm2
Sensitivity: 19.2 Structures/mm2**ASBESTOS STRUCTURES:**4
< 5 Microns: 4
>= 5 Microns: None Detected
Concentration: 49300.0000 Structures/cm2
Fibers/Area: 76.900 Structures/mm2
Types Identified: Chrysotile**NON-ASBESTOS STRUCT:**9
Concentration: 111000.0000 Structures/cm2
Fibers/Area: 173.0 Structures/mm2
Types Identified: Silica (Si)
Kaolin-Clay (Si,Al)Micrograph No.:
X-Ray Spectrum No.:**RECEIVED****MAY 02 2002****EHS - ALASKA, INC.**Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos
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Craig A. Uska, AIT-AAR 4881

Approved By:Frank E. Ehrenfeld, III
Laboratory Director**Date:**

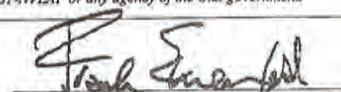
APR 10 2002

IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479832
Client Sample No.: UJ4502-D08**Description / Location:** AHU-3; MPR Supply
Downstream Of Heat**Area Sampled:** 100.0 cm²
Volume Filtered: 0.3 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 um**ANALYSIS RESULTS****Grid Openings:** 4
Opening Area: 0.013 mm²
Area Analyzed: 0.052 mm²
Detection Limit: 37000.0000 Structures/cm²
Sensitivity: 19.2 Structures/mm²**ASBESTOS STRUCTURES:****ASBESTOS STRUCTURES:** 5
< 5 Microns: 5
>= 5 Microns: None Detected
Concentration: 185000.0000 Structures/cm²
Fibers/Area: 96.200 Structures/mm²
Types Identified: Chrysotile**NON-ASBESTOS STRUCT:****NON-ASBESTOS STRUCT:** 10
Concentration: 370000.0000 Structures/cm²
Fibers/Area: 192.0 Structures/mm²
Types Identified: Kaolin-Clay (Si,Al)
Silica (Si)**Micrograph No.:****X-Ray Spectrum No.:****RECEIVED**

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Craig A. Lisk, AIAA-AAR 4881**Date:**

APR 10 2002

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Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479833
Client Sample No.: UJ4502-D09
Description / Location: RA & OA Mix Pleurum
Gym Unit**Area Sampled:** 100.0 cm²
Volume Filtered: 1.5 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 um**ANALYSIS RESULTS****Grid Openings:** 10
Opening Area: 0.013 mm²
Area Analyzed: 0.130 mm²
Detection Limit: 2470.0000 Structures/cm²
Sensitivity: 7.7 Structures/mm²**ASBESTOS STRUCTURES:****< 5 Microns:** 2
>= 5 Microns: None Detected
Concentration: 4930.0000 Structures/cm²
Fibers/Area: 15.400 Structures/mm²
Types Identified: Chrysotile**NON-ASBESTOS STRUCT:****Concentration:** 2
Fibers/Area: 4930.0000 Structures/cm²
Types Identified: 15.4 Structures/mm²
Silica (Si)
Kaolin-Clay (Si,Al)**Micrograph No.:****X-Ray Spectrum No.:****RECEIVED****MAY 02 2002****EHS - ALASKA, INC.****Methodology:** ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos
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Craig A. Lisak, AIA-AAR 4801

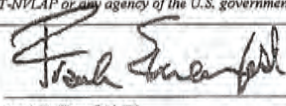
Date:

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Approved By:Frank E. Ehrenfeld, III
Laboratory Director

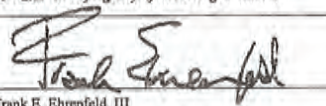
IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479834
Client Sample No.: UJ4502-D10**Description / Location:** Gym Unit
Supply At Fan**Area Sampled:** 100.0 cm²
Volume Filtered: 0.5 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 um**ANALYSIS RESULTS****Grid Openings:** 10
Opening Area: 0.013 mm²
Area Analyzed: 0.130 mm²
Detection Limit: 7400.0000 Structures/cm²
Sensitivity: 7.7 Structures/mm²**ASBESTOS STRUCTURES:****< 5 Microns:** 3
>= 5 Microns: None Detected
Concentration: 22200.0000 Structures/cm²
Fibers/Area: 23.100 Structures/mm²
Types Identified: Chrysotile**NON-ASBESTOS STRUCT:****Concentration:** 8
Fibers/Area: 59200.0000 Structures/cm²
Types Identified: Silica (Si)
Kaolin-Clay (Si,Al)**Micrograph No.:**
X-Ray Spectrum No.:**RECEIVED**

MAY 02 2002

EHS - ALASKA, INC.**Methodology:** ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos
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Craig A. Liska, AIAA-AAR 4801**Date:** APR 10 2002**Approved By:** Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479835
Client Sample No.: UJ4502-D11**Description / Location:** Art Room AHU
RA Upstream Of FiltersArea Sampled: 100.0 cm2
Volume Filtered: 0.8 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm2
Pore Size: 0.45 um**ANALYSIS RESULTS**Grid Openings: 10
Opening Area: 0.013 mm2
Area Analyzed: 0.130 mm2
Detection Limit: 4930.0000 Structures/cm2
Sensitivity: 7.7 Structures/mm2**ASBESTOS STRUCTURES:**2
< 5 Microns: 2
≥ 5 Microns: None Detected
Concentration: 9870.0000 Structures/cm2
Fibers/Area: 15.400 Structures/mm2
Types Identified: Chrysotile**NON-ASBESTOS STRUCT:**3
Concentration: 14800.0000 Structures/cm2
Fibers/Area: 23.1 Structures/mm2
Types Identified: Silica (Si)Micrograph No.:
X-Ray Spectrum No.:**RECEIVED**

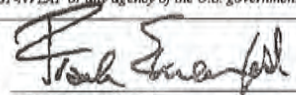
APR 02 2002

EHS - ALASKA, INC.**Methodology:** ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.***Analysis Performed By:** 
Craig A. Liske, AIAA-AAR 4801**Date:** APR 10 2002**Approved By:** 
Frank E. Ehrenfeld, III
Laboratory Director

IATL International Asbestos
Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054

Telephone: 856-231-9449 Fax: 856-231-9818

Transmission Electron Microscopy - Sample Data**Client:** EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577**Report Date:** 04/22/2002
Project: ASD;URSA;MajorDustyDucts;4-5-02
Project No.: 5679-01**IATL No.:** 1479836
Client Sample No.: UJ4502-D12**Description / Location:** Art Room AHU
Supply At Fan**Area Sampled:** 100.0 cm2
Volume Filtered: 0.5 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm2
Pore Size: 0.45 um**ANALYSIS RESULTS****Grid Openings:** 5
Opening Area: 0.013 mm2
Area Analyzed: 0.065 mm2
Detection Limit: 14800.0000 Structures/cm2
Sensitivity: 15.4 Structures/mm2**ASBESTOS STRUCTURES:****< 5 Microns:** 4
>= 5 Microns: None Detected
Concentration: 59200.0000 Structures/cm2
Fibers/Area: 61.500 Structures/mm2
Types Identified: Chrysotile**NON-ASBESTOS STRUCT:****Concentration:** 4
Fibers/Area: 59200.0000 Structures/cm2
Types Identified: 61.5 Structures/mm2
Silica (Si)
Kaolin-Clay (Si,Al)**Micrograph No.:****X-Ray Spectrum No.:****RECEIVED****MAY 02 2002****EHS - ALASKA, INC.****Methodology:** ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis Of Settled Dust By TEM For Asbestos*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.***Analysis Performed By:** 
Craig A. Uska, AHA-AAR 4881**Date:** APR 10 2002**Approved By:** Frank E. Ehrenfeld, III
Laboratory Director


EHS ALASKA
 INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577-7701

(907) 694-1383 • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA			
FIELD COLLECTION DATE: 11-05-04		JOB #: 6141-01	
PROJECT NAME: Ursa Major Window Replacement		MATERIAL TYPE ASBESTOS	
FACILITY: Ursa Major Elementary School		TOTAL QUANTITIES: 3 BULK ANALYSIS REQUESTED: ☐ PLM ☒ TEM DUST ☐ TEM BULK ☐ LEAD TCLP ☐ LEAD PPM	
DISPOSAL: Normal		TURNAROUND: 5 days	
SPECIAL INSTRUCTIONS:			
COLLECTED BY (signature) David DeMay PRINTED NAME T-9144-7551 CERT# AHERA# Federal Express SHIPPING METHOD 7921 393 4380 COURIER (signature) 11-8-04 DATE/TIME 12:00pm		IATL SELECTED LABORATORY SAMPLES ACCEPTED BY DATE/TIME ANALYST'S SIGNATURE 11-16-04 DATE 11-18-04	
COMMENTS: Analyze by ASTM D5756 for weight percentage of asbestos. Asbestos Structures cm ² of Area and % Asbestos by weight NOV - 7 10:05			
SAMPLE ID	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REP)	RESULTS
UM1104-D1 2111045	Microvac Dust, 10cm x 10cm	Room 118, on light fixture in NE corner of office	34,000 sf/cm ² 0.00077%
UM1104-D2 2111046	Microvac Dust, 10cm x 10cm	Room 170, on light fixture on South end of room	31,000 sf/cm ² 0.0142%
UM1104-D3 2111047	Microvac Dust, 10cm x 10cm	Room 207, on top of fresh air intake	180,000 sf/cm ² 0.0017%

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA HS-991



16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577

RECEIVED
NOV 22 2004

Report Date: 11/16/2004
Project: Ursa Major Elementary School
Project No.: 6141-01

TEM DUST SAMPLE ANALYSIS SUMMARY

<u>Lab No.</u>	<u>Client No.</u>	<u>Location</u>	<u>Result</u>	<u>Asbestos Types</u>
2110045	UM1104-D1	Room 118 On Light Fixture NE Corner Of Office	34000.0 Structures/cm ²	Chrysotile
2110046	UM1104-D2	Room 170 On Light Fixture South End Of Room	31000.0 Structures/cm ²	Chrysotile
2110047	UM1104-D3	Room 270 Top Of Fresh Air Intake	180000.0 Structures/cm ²	Chrysotile

NIST-NVLAP No. 101165-0

AIHA Lab No. 100188

NYS-DOH No. 11021

Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis of Settled Dust By TEM For Asbestos

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.

IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.

Method requires submittal of blanks for analysis.

Comments: TEM settled dust results are dependent upon several factors including sampling technique. IATL can supply references that may aid in the interpretation of these results.

Analysis Performed By: C. Liska

Approved By:

Date: 11/16/2004

Page 1 of 1


Frank E. Ehrenfeld, III
Laboratory Director



**International Asbestos
Testing Laboratories**

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

Transmission Electron Microscopy - Sample Data

Client: EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577

Report Date: 11/16/2004
Project: Ursa Major Elementary School
Project No.: 6141-01

IATL No.: 2110045
Client Sample No.: UM1104-D1

Description/ Location: Room 118
On Light Fixture
NE Corner Of Office

Area Sampled: 100.0 cm²
Volume Filtered: 3.00 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 µm

ANALYSIS RESULTS:

Grid Openings: 4
Opening Area: 0.013 mm²
Area Analyzed: 0.052 mm²
Detection Limit: 3083.0 Structures/cm²
Sensitivity: 19.2 Structures/mm²

ASBESTOS STRUCTURES:

11
< 5 Microns: 11
> = 5 Microns: None Detected
Concentration: 34000.0 Structures/cm²
Fibers/Area: 211,000 Structures/mm²
Types Identified: Chrysotile
Type 2:
Type 3:

NON-ASBESTOS STRUCTURES:

13
Concentration: 40000.0 Structures/cm²
Fibers/Area: 250.0 Structures/mm²
Types Identified: Kaolin-Clay (Si, Al)
Type 2:
Type 3:
Type 4:

Micrograph Number:
X-Ray Spectrum Number: 11:23:02

Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis of Settled Dust By TEM For Asbestos

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IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.
Method requires submittal of blanks for analysis.*

Analysis Performed By: C. Liska

Date: 11/16/2004

IATLInternational Asbestos
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**Transmission Electron Microscopy - Sample Data****Client:** EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577**Report Date:** 11/16/2004
Project: Ursa Major Elementary School
Project No.: 6141-01**IATL No.:** 2110046
Client Sample No.: UM1104-D2**Description/ Location:** Room 170
On Light Fixture
South End Of RoomArea Sampled: 100.0 cm²
Volume Filtered: 5.00 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 µm**ANALYSIS RESULTS:**Grid Openings: 4
Opening Area: 0.013 mm²
Area Analyzed: 0.052 mm²
Detection Limit: 1850.0 Structures/cm²
Sensitivity: 19.2 Structures/mm²**ASBESTOS STRUCTURES:**17
< 5 Microns: 16
> = 5 Microns: 1
Concentration: 31000.0 Structures/cm²
Fibers/Area: 326.000 Structures/mm²
Types Identified: Chrysotile
Type 2:
Type 3:**NON-ASBESTOS STRUCTURES:**2
Concentration: 3700.0 Structures/cm²
Fibers/Area: 38.4 Structures/mm²
Types Identified: Kaolin-Clay (Si, Al)
Type 2: Silicate (Si, Ca, Fe)
Type 3:
Type 4:Micrograph Number: 1415
X-Ray Spectrum Number: 08:40:44**Methodology:** ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis of Settled Dust By TEM For Asbestos*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.**IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.**Method requires submittal of blanks for analysis.***Analysis Performed By:** C. Liska**Date:** 11/16/2004



**International Asbestos
Testing Laboratories**

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

Transmission Electron Microscopy - Sample Data

Client: EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577

Report Date: 11/16/2004
Project: Ursa Major Elementary School
Project No.: 6141-01

IATL No.: 2110047
Client Sample No.: UM1104-D3

Description/ Location: Room 270
TopOfFreshAirIntake

Area Sampled: 100.0 cm²
Volume Filtered: 2.00 Milliliters
Dilution Factor: 50.0 Milliliters
Filter: MCE
Filter Size: 962 mm²
Pore Size: 0.45 µm

ANALYSIS RESULTS:

Grid Openings: 4
Opening Area: 0.013 mm²
Area Analyzed: 0.052 mm²
Detection Limit: 4630.0 Structures/cm²
Sensitivity: 19.2 Structures/mm²

ASBESTOS STRUCTURES:

38
< 5 Microns: 37
>= 5 Microns: 1
Concentration: 180000.0 Structures/cm²
Fibers/Area: 730.000 Structures/mm²
Types Identified: Chrysotile
Type 2:
Type 3:

NON-ASBESTOS STRUCTURES:

6
Concentration: 28000.0 Structures/cm²
Fibers/Area: 115.0 Structures/mm²
Types Identified: Kaolin-Clay (Si,Al)
Type 2:
Type 3:
Type 4:

Micrograph Number:
X-Ray Spectrum Number:

Methodology: ASTM D5755-95 Standard Test Method For Microvacuum Sampling And Indirect Analysis of Settled Dust By TEM For Asbestos

*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.
IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.
Method requires submittal of blanks for analysis.*

Analysis Performed By: C. Liska

Date: 11/16/2004

IATLInternational Asbestos
Testing Laboratories16002 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**TEM Settled Dust / Microvac (mass/area) by ASTM D5756**Client Name: EHS Alaska
Project: Ursa Major Window ReplacementIATL Sample Number: 2110045
Client Sample Number: UM1104-D1

Area Sampled X (cm) =	10	Vessel Size (ml) =	50
Area Sampled Y (cm) =	10	Aliquot / Dilution (ml) =	3
Total Area Sampled (cm ²) =	100	Final Indirect Filter Area (mm ²) =	962
		Filter Fraction Ashed (%) =	100
Grid Opening Size (mm) =	0.013	Tare (g) =	4.3688
Number of Openings Analyzed =	4	Initial (g) =	4.4936
Area Analyzed (mm ²) =	0.052	Ashed (g) =	4.4018
		PreAsh Mass (g) =	0.1248
Analytical Sensitivity (mm ²) =	19.2	PostAsh Mass (g) =	0.0918
Min Detection Limit (s/cm ²) =	3083	Surviving Ashing (%) =	73.6
Min Detection Limit (g/cm ²) =	3.08E-13	Initial W1 (g) =	7.2192
Min Detection Limit (%weight) =	8.36E-08	Deposition / Suspension W2 (g) =	7.2561
		PostDepo/Susp Mass (g) =	0.0369

Asbestos Structures (s/mm²) = 211.0
Asbestos Structures (s/cm²) = 34,000Asbestos Mass Conc (g/cm²) = 2.8E-09
Asbestos (%weight) = 7.7E-04**Totals:**

Structures Analyzed = 11

Asbestos Mass (g) = 9.18E-11

Structure Number	ID	Asb ID	L(um)	W(um)	Mass (g)
1	F	Chr	1.0	0.05	5.0069E-15
2	B	Chr	1.0	0.09	1.6222E-14
3	M	Chr	2.5	0.15	1.1266E-13
4	F	Chr	1.2	0.09	1.9467E-14
5	B	Chr	2.5	0.15	1.1266E-13
6	B	Chr	2.5	0.10	5.0069E-14
7	F	Chr	1.7	0.05	8.5118E-15
8	M	Chr	2.5	2.50	3.1293E-11
9	M	Chr	3.0	3.00	5.4075E-11
10	M	Chr	3.0	1.00	6.0083E-12
11	B	Chr	3.5	0.12	1.0094E-13

IATLInternational Asbestos
Testing Laboratories16002 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**TEM Settled Dust / Microvac (mass/area) by ASTM D5756****Client Name:** EHS Alaska
Project: Ursa Major Window Replacement**IATL Sample Number:** 2110046
Client Sample Number: UM1104-D2

Area Sampled X (cm) =	10	Vessel Size (ml) =	50
Area Sampled Y (cm) =	10	Aliquot / Dilution (ml) =	5
Total Area Sampled (cm ²) =	100	Final Indirect Filter Area (mm ²) =	962
		Filter Fraction Ashed (%) =	100
Grid Opening Size (mm) =	0.013	Tare (g) =	4.9041
Number of Openings Analyzed =	4	Initial (g) =	5.0042
Area Analyzed (mm ²) =	0.052	Ashed (g) =	4.9119
		PreAsh Mass (g) =	0.1001
Analytical Sensitivity (mm ²) =	19.2	PostAsh Mass (g) =	0.0923
		Surviving Ashing (%) =	92.2
Min Detection Limit (s/cm ²) =	1850	Initial W1 (g) =	7.1938
Min Detection Limit (g/cm ²) =	1.85E-13	Deposition / Suspension W2 (g) =	7.2012
Min Detection Limit (%weight) =	2.50E-07	PostDepo/Susp Mass (g) =	0.0074

Asbestos Structures (s/mm²) = 326.0
Asbestos Structures (s/cm²) = 31,000Asbestos Mass Conc (g/cm²) = 1.0E-08
Asbestos (%weight) = 1.4E-02**Totals:**
Structures Analyzed = 17**Asbestos Mass (g) =** 5.67E-10

Structure Number	ID	Asb ID	L(um)	W(um)	Mass (g)
1	F	Chr	1.5	0.15	6.7593E-14
2	B	Chr	0.8	0.05	4.0055E-15
3	F	Chr	2.1	0.09	3.4067E-14
4	F	Chr	2.3	5.00	1.1516E-10
5	F	Chr	0.8	0.09	1.2978E-14
6	F	Chr	1.6	0.05	8.0111E-15
7	B	Chr	1.0	0.20	8.0111E-14
8	B	Chr	2.6	0.08	3.3326E-14
9	M	Chr	5.0	4.50	2.0278E-10
10	M	Chr	2.6	0.25	3.2545E-13
11	F	Chr	2.0	0.09	3.2445E-14
12	M	Chr	6.0	4.50	2.4334E-10
13	F	Chr	0.9	0.06	6.4890E-15
14	F	Chr	1.6	0.05	8.0111E-15
15	M	Chr	3.0	0.90	4.8667E-12
16	B	Chr	3.5	0.25	4.3811E-13
17	B	Chr	4.1	0.09	6.6512E-14

IATLInternational Asbestos
Testing Laboratories16002 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**TEM Settled Dust / Microvac (mass/area) by ASTM D5756****Client Name:** EHS Alaska
Project: Ursa Major Window Replacement**IATL Sample Number:** 2110047
Client Sample Number: UM1104-D3

Area Sampled X (cm) =	10	Vessel Size (ml) =	50
Area Sampled Y (cm) =	10	Aliquot / Dilution (ml) =	2
Total Area Sampled (cm ²) =	100	Final Indirect Filter Area (mm ²) =	962
		Filter Fraction Ashed (%) =	100
Grid Opening Size (mm) =	0.013	Tare (g) =	4.3392
Number of Openings Analyzed =	4	Initial (g) =	4.5323
Area Analyzed (mm ²) =	0.052	Ashed (g) =	4.4162
		PreAsh Mass (g) =	0.1931
Analytical Sensitivity (mm ²) =	19.2	PostAsh Mass (g) =	0.1161
		Surviving Ashing (%) =	60.1
Min Detection Limit (s/cm ²) =	4625	Initial W1 (g) =	7.1829
Min Detection Limit (g/cm ²) =	4.63E-13	Deposition / Suspension W2 (g) =	7.2864
Min Detection Limit (%weight) =	4.47E-08	PostDepo/Susp Mass (g) =	0.1035

Asbestos Structures (s/mm²) = 730.0
Asbestos Structures (s/cm²) = 180,000Asbestos Mass Conc (g/cm²) = 1.7E-08
Asbestos (%weight) = 1.7E-03**Totals:**
Structures Analyzed = 38**Asbestos Mass (g) = 3.74E-10**

Structure Number	ID	Asb ID	L(um)	W(um)	Mass (g)
1	M	Chr	1.6	0.30	2.8840E-13
2	F	Chr	1.0	0.05	5.0069E-15
3	F	Chr	0.9	0.06	6.4890E-15
4	F	Chr	1.2	0.05	6.0083E-15
5	F	Chr	1.6	0.06	1.1536E-14
6	M	Chr	9.0	4.00	2.8840E-10
7	B	Chr	1.2	0.10	2.4033E-14
8	M	Chr	3.0	2.00	2.4033E-11
9	F	Chr	0.9	0.06	6.4890E-15
10	F	Chr	1.1	0.06	7.9310E-15
11	F	Chr	0.6	0.05	3.0042E-15
12	M	Chr	4.5	2.00	3.6050E-11
13	F	Chr	0.6	0.09	9.7335E-15
14	F	Chr	2.0	0.09	3.2445E-14
15	F	Chr	0.6	0.05	3.0042E-15
16	B	Chr	0.8	0.09	1.2167E-14
17	M	Chr	2.5	0.25	3.1293E-13
18	F	Chr	1.5	0.05	7.5104E-15
19	B	Chr	2.0	0.10	4.0055E-14
20	F	Chr	1.5	0.09	2.4334E-14

Structure Number	ID	Asb ID	L(um)	W(um)	Mass (g)
21	F	Chr	1.6	0.09	2.5956E-14
22	B	Chr	4.4	0.25	5.5076E-13
23	B	Chr	1.0	0.15	4.5062E-14
24	M	Chr	1.5	1.00	3.0042E-12
25	F	Chr	1.1	0.05	5.5076E-15
26	B	Chr	1.0	0.10	2.0028E-14
27	F	Chr	0.5	0.10	1.0014E-14
28	B	Chr	4.5	0.15	2.0278E-13
29	F	Chr	1.0	0.09	1.6222E-14
30	F	Chr	1.0	0.06	7.2100E-15
31	B	Chr	2.0	0.15	9.0125E-14
32	F	Chr	1.7	0.06	1.2257E-14
33	F	Chr	1.0	0.05	5.0069E-15
34	B	Chr	3.0	0.10	6.0083E-14
35	F	Chr	1.0	0.05	5.0069E-15
36	B	Chr	2.5	0.10	5.0069E-14
37	M	Chr	4.5	1.50	2.0278E-11
38	B	Chr	1.6	0.10	3.2044E-14

APPENDIX C

Lead Dust Sample Field Survey Data Sheets and Laboratory Reports


EHS ALASKA
INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577-7701

(907) 694-1383 • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

FAKED
11.16.04

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA			
FIELD COLLECTION DATE: 11-05-04		JOB #: 6141-01	
PROJECT NAME: Ursa Major Window Replacement		MATERIAL TYPE Lead	
FACILITY: Ursa Major Elementary School		TOTAL QUANTITIES: 4	
BULK ANALYSIS REQUESTED:		☐ PLM ☐ PLM DUST ☐ TEM BULK ☐ LEAD TCLP ☒ LEAD WIPE	
DISPOSAL: Normal		TURNAROUND: 3-5 days	
SPECIAL INSTRUCTIONS:			
COLLECTED BY (signature) David DeMay PRINTED NAME T-9144-7551 CERT# AHERA# Federal Express SHIPPING METHOD 7921 3193 4380 COURIER (signature) 11-5-04 12:00pm DATE/TIME		IATL SELECTED LABORATORY SAMPLES ACCEPTED BY DATE/TIME 11/16/04 ANALYST'S SIGNATURE DATE NOV - 9 2004 COMMENTS: Please express results in $\mu\text{g}/\text{ft}^2$ - all samples taken on 10cm x 10cm area. @ 11/18/04	
SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS
UM1104-LD1 2113312	Wipe - 10 cm x 10 cm	Room 118, above light fixture in NE corner of office	$36 \mu\text{g}/\text{ft}^2$
UM1104-LD2 2113313	Wipe - 10 cm x 10 cm	Room 170, above light fixture on South end of room	$80 \mu\text{g}/\text{ft}^2$
UM1104-LD3 2113314	Wipe - 10 cm x 10 cm	Room 207, on top of fresh air intake	$170 \mu\text{g}/\text{ft}^2$
UM1104-LD4 2113315	Wipe Blank	Field Blank - wiped on hands and template. No other surface touched.	$< 10 \mu\text{g}$

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA RS-995

IATLInternational
Testing Laboratories16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818**CERTIFICATE OF ANALYSIS****Client:** EHS Alaska Incorporated
11901 Business Blvd., Suite 208
Eagle River AK 99577**Report Date:** 11/16/2004
Report Number: 11043665
Project: Ursa Major Elementary
Project No.: 6141-01**LEAD WIPE SAMPLE ANALYSIS SUMMARY**

<u>Lab No.</u>	<u>Client No.</u>	<u>Description / Location</u>	<u>Area Sampled (ft²)</u>	<u>Concentration (ug/ft²)</u>
2113312	UM1104-LD1	Rm 118, Above Light Fixture In NE Corner Of Office	0.69	36.0
2113313	UM1104-LD2	Rm 170, Above Light Fixture On South End Of Rm	0.69	80.0
2113314	UM1104-LD3	Rm 207, On Top Of Fresh Air Intake	0.69	170.0
2113315	UM1104-LD4	Blank	Blank	<10.0 ug

NATIONAL LEAD LABORATORY ACCREDITATION PROGRAM (NLLAP)

AIHA-ELPAT-NIOSH No. 100188 / NYSDOH-ELAP No. 11021

Analysis Method: EPA SW846-(7420/7421) "Standard Method To Test For Low Concentrations Of Lead In Soils, Sludges And Sediments By AAS"**Comments:** Regulatory limit varies by surface location (EPA/HUD guidelines). Unless otherwise stated, results assume one square foot sampled. Method requires submittal of blanks. IATL assumes that all of the sampling methods and data upon which these results are based, have been accurately supplied by the client. Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Appendix B. Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELAP policies. LSD= 0.2 ppm MDL=2.0 ug/ft² RL=10.0 ug/ft² (based upon 1.0 square foot sampled). The EPA 403 Final Rule (40 CFR 745.63) requires that all wipe samples of settled dust shall be collected using a wipe that meets ASTM E1792.**Date Received:** 11/9/2004**Date Analyzed:** 11/16/2004**Analyst:** C. Shaffer**Approved By:**Frank E. Ehrenfeld, III
Laboratory Director

International Asbestos
Testing Laboratories16000 Horizon Way, Unit 100, Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

INFO@IATL.COM

DAILY QUALITY CONTROL DATA

LEAD SAMPLE ANALYSIS

(DATE: 11 / 16 / 04)

Standard	Total Lead (mg)	Percent Recovery **
Reagent Blank	0.000	< LOQ
Blank Spike	0.500	103
Lab control Std 2581 *	0.509	96
Matrix Spike - LBP *	1.28	98
Matrix Spike - Wipe *	1.04	100
Matrix Spike - Soil *	0.287	96
Matrix spike - Air *	0.050	104
2.5 ppm Standard	0.25	102
10.0 ppm Standard	1.0	101
40.0 ppm Standard	4.0	99

ELPAT No. 100188 AIHA Lab No. 444 NIOSH PAT No. 100188 NYS-DOH No. 11021

Analysis Method: ASTM D3335-85A

NIOSH 7082

EPA SW846 3050 7420/21

Comments: IATL assumes that all sampling complies with accepted methods.

All client supplied sampling data is assumed to be correct when calculating results.

Detection limit based upon 0.2 mg/L reporting limit and sample size.

* NIST Traceable.

** 80-120% acceptable limits.

Analyzed By:

R. Chad Shaffer

Date:

Approved By:

Frank A. Ehrenfeld III
Laboratory Director

APPENDIX D

Bulk Product PCB Sample Field Survey Data Sheets and Laboratory Reports

AD11191


EHS ALASKA
INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577

(907) 694-1383 • (907) 694-1382 fax

e-mail • ehslabs@ehs-alaska.com

PROJECT NO: 8193	PROJECT NAME: Ursa Major Demo & Replacement	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 02/13-19/25
----------------------------	---	--	--

CHAIN OF CUSTODY RECORD

ANALYSIS REQUESTED:	☐ PLM BULK ☐ LEAD DUST ☐ TEM MICROVAC DUST (ASTM 5756)	☐ PLM DUST ☐ LEAD TCLP ☒ PCB BULK	☐ TEM BULK ☒ ASBESTOS ☒ PCBs	TYPE: TURNAROUND: 2 WEEKS DISPOSAL: NORMAL QUANTITY: 13
COLLECTED BY (signature) Travis W. Hubbard & Fisher G. Gandel PRINTED NAME 00006140 / 0-935 & 20241023 / T-31317-45276 CERT# AHERA# FedEx SHIPPING METHOD 7722 4093 2144 COURIER (signature) DATE/TIME 02/24/25 11:00 AM		SPECIAL INSTRUCTIONS / COMMENTS: EMSL - Cinnaminson NJ SELECTED LABORATORY SAMPLES ACCEPTED BY DATE/TIME ANALYST'S SIGNATURE DATE LAB: RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA, INC. See sample location drawing for more detailed explanation of exact locations. 21.6c lead inflexible		

FIELD SURVEY DATA

EHs SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHs-ALASKA USE ONLY
1 UMES2502-P01	White, Green, and Pink Paint Layers, GWB	Office 102, northwest wall. P-180F	19.5 ppm
2 UMES2502-P02	Off-white Paint, GWB	Library 141, Southeast wall beneath windows. P-411T	1.2 ppm
3 UMES2502-P03	Dark Red Paint	Basement 35, on concrete floor in front of stairs. P-213F	15 ppm
4 UMES2502-P04	Black Tarry Sprayed-on Damproofing (Note: Contains Asbestos)	Mechanical 207, southeast wall near corner. P-220F	100 ppm
5 UMES2502-P05	Hot Mop Tar (Note: May Contain Asbestos)	Blower Room 236, southeast wall, on spray-on DP and concrete. P-242F	11 ppm
6 UMES2502-P06	Beige Frame Sealant	Generator Building Exterior, east wall, from between ventilation slats metal frame and CMUs. P-288F	None Detected
7 UMES2502-P07	Black Rubber Window Frame Gasket	School Exterior, Office 101's windows, from between metal window frame and glass. P-1185T	None Detected
8 UMES2502-P08	Grey Window Frame Sealant	School Exterior, Classroom 153's windows, between metal frame and concrete column. P-297	5.6 ppm


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PROJECT NO: 8193	PROJECT NAME: Ursa Major Demo & Replacement	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 02/13-19/25
FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
9 UMES2502-P09	Tan, Green, and Yellow Paint Layers	School Exterior, from middle of Classroom 153's windowsill. P-1197T	540 ppm
10 UMES2502-P10	Pliable White Door Seam Sealant	School Exterior, outside Vestibule 1101, between metal door frame and concrete. P-1212T	None Detected
11 UMES2502-P11	White, Pink Paint Layers	School Exterior, north wall of Gym 184 near eastern corner. P-301F	None Detected
12 UMES2502-P12	Dk. Grey Window Frame Sealant	School Exterior, Kindergarten 130, left side, between window frame and concrete. P-1260T	None Detected
13 UMES2502-P13	White, Pink, Green, and Yellow Paint Layers	School Exterior, south corner of Library 141, off of extruding column where the finish is smooth. P-303F	None Detected



EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax: cs@emsl.com
EMSL-CIN-01

EMSL Order ID: 012511191
LIMS Reference ID: AD11191
EMSL Customer ID: ENVI04

March 11, 2025

Travis Hubbard
EHS Alaska, Inc. [ENVI04]
11901 Business Blvd
Eagle River, Alaska 99577

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 2/25/2025. The results are tabulated on the attached pages for the following client designated project:

8193-Ursa Major Demo & Replacement

The reference number for these samples is EMSL Order #: AD11191 . Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact the lab at 856-858-4800.

Owen McKenna Laboratory Manager or other approved signatory

Table of Contents

Cover Letter	1
Sample Condition on Receipt	3
Samples in Report	4
Positive Hits Summary	5
Sample Results	7
Quality Assurance Results	20
Certified Analyses	21
Certifications	21
Qualifiers, Definitions and Disclaimer	22
Chain of Custody PDF	23



EMSL Analytical, Inc.

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EMSL Order ID: 012511191

LIMS Reference ID: AD111191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:

EMSL Sales Rep:

Stefan Wiersgalla

Received:

02/25/2025 09:40

Reported:

03/11/2025 17:07

Sample Condition on Receipt

Cooler ID: Default Cooler

Temperature: 21.6 °C

Custody Seals	Y
Containers Intact	Y
COC/Labels Agree	Y
Preservation Confirmed	Y

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00



EMSL Analytical, Inc.

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EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla

Received: 02/25/2025 09:40

Reported: 03/11/2025 17:07

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
AD11191-01	UMES2502-P01	Solid	2/13/25 12:00 am	02/25/2025
AD11191-02	UMES2502-P02	Solid	2/13/25 12:00 am	02/25/2025
AD11191-03	UMES2502-P03	Solid	2/13/25 12:00 am	02/25/2025
AD11191-04	UMES2502-P04	Solid	2/13/25 12:00 am	02/25/2025
AD11191-05	UMES2502-P05	Solid	2/13/25 12:00 am	02/25/2025
AD11191-06	UMES2502-P06	Solid	2/13/25 12:00 am	02/25/2025
AD11191-07	UMES2502-P07	Solid	2/13/25 12:00 am	02/25/2025
AD11191-08	UMES2502-P08	Solid	2/13/25 12:00 am	02/25/2025
AD11191-09	UMES2502-P09	Solid	2/13/25 12:00 am	02/25/2025
AD11191-10	UMES2502-P10	Solid	2/13/25 12:00 am	02/25/2025
AD11191-11	UMES2502-P11	Solid	2/13/25 12:00 am	02/25/2025
AD11191-12	UMES2502-P12	Solid	2/13/25 12:00 am	02/25/2025
AD11191-13	UMES2502-P13	Solid	2/13/25 12:00 am	02/25/2025

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Page 4 of 23

HAZARDOUS MATERIALS ASSESSMENT
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LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Positive Hits Summary

Lab ID	Client ID					Sampled
AD11191-01	UMES2502-P01					02/13/25 00:00
Method	Analyte	Result	Qualifier	Unit	Analyzed	
SW846-8082A	Aroclor-1260	12	D	mg/kg	03/07/2025 10:55	
SW846-8082A	Aroclor-1242	7.5	D	mg/kg	03/07/2025 10:55	
Lab ID	Client ID					Sampled
AD11191-02	UMES2502-P02					02/13/25 00:00
Method	Analyte	Result	Qualifier	Unit	Analyzed	
SW846-8082A	Aroclor-1260	1.2		mg/kg	03/06/2025 17:36	
Lab ID	Client ID					Sampled
AD11191-03	UMES2502-P03					02/13/25 00:00
Method	Analyte	Result	Qualifier	Unit	Analyzed	
SW846-8082A	Aroclor-1260	15		mg/kg	03/06/2025 17:58	
Lab ID	Client ID					Sampled
AD11191-04	UMES2502-P04					02/13/25 00:00
Method	Analyte	Result	Qualifier	Unit	Analyzed	
SW846-8082A	Aroclor-1260	100	D	mg/kg	03/07/2025 11:17	
Lab ID	Client ID					Sampled
AD11191-05	UMES2502-P05					02/13/25 00:00
Method	Analyte	Result	Qualifier	Unit	Analyzed	
SW846-8082A	Aroclor-1260	11		mg/kg	03/06/2025 18:42	
Lab ID	Client ID					Sampled
AD11191-08	UMES2502-P08					02/13/25 00:00
Method	Analyte	Result	Qualifier	Unit	Analyzed	
SW846-8082A	Aroclor-1260	1.3		mg/kg	03/06/2025 19:26	
SW846-8082A	Aroclor-1242	2.0		mg/kg	03/06/2025 19:26	
SW846-8082A	Aroclor-1254	2.3		mg/kg	03/06/2025 19:26	
Lab ID	Client ID					Sampled
AD11191-09	UMES2502-P09					02/13/25 00:00
Method	Analyte	Result	Qualifier	Unit	Analyzed	
SW846-8082A	Aroclor-1254	540	D	mg/kg	03/07/2025 11:39	

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HAZARDOUS MATERIALS ASSESSMENT
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EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:

EMSL Sales Rep: Stefan Wiersgalla

Received: 02/25/2025 09:40

Reported: 03/11/2025 17:07

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EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

Sample: UMES2502-P01/Office 102, Northwest wall, P-180F
AD11191-01 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1221	ND	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1232	ND	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1242	7.5	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1248	ND	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1254	ND	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1260	12	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1262	ND	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1268	ND	D	5	1.2	mg/kg	03/06/25 09:19	03/07/25 10:55	R.C./TL1	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q	Limits							
Surrogate: Tetrachloro-m-xylene	150%	C	10-112							
Surrogate: Decachlorobiphenyl	165%	C	10-123							

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Page 7 of 23

HAZARDOUS MATERIALS ASSESSMENT
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EMSL-CIN-01

EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

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Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P02/Library 141, Southeast wall beneath windows, P-411T
AD11191-02 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	1.2		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 17:36	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q	Limits							
<i>Surrogate: Tetrachloro-m-xylene</i>	72%		10-112							
<i>Surrogate: Decachlorobiphenyl</i>	80%		10-123							

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HAZARDOUS MATERIALS ASSESSMENT
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Section 02 26 00



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EMSL-CIN-01

EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

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(907) 694-1383
ehslabs@ehs-alaska.com

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P03/Basement 35, on concrete floor in front of stairs, P-213F
AD11191-03 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	15		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.83	mg/kg	03/06/25 09:19	03/06/25 17:58	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q	Limits							
<i>Surrogate: Tetrachloro-m-xylene</i>	71%		10-112							
<i>Surrogate: Decachlorobiphenyl</i>	86%		10-123							

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HAZARDOUS MATERIALS ASSESSMENT

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EMSL Order ID: 012511191**LIMS Reference ID:** AD11191**EMSL Customer ID:** ENVI04

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Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P04/Mechanical 207, southeast wall near corner, P-220F
 AD11191-04 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1221	ND	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1232	ND	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1242	ND	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1248	ND	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1254	ND	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1260	100	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1262	ND	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1268	ND	D	10	8.9	mg/kg	03/06/25 09:19	03/07/25 11:17	R.C./TL1	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q	Limits							
<i>Surrogate: Tetrachloro-m-xylene</i>	93%		10-112							
<i>Surrogate: Decachlorobiphenyl</i>	99%		10-123							

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Page 10 of 23

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00



EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:cs@emsl.com
EMSL-CIN-01

EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Attention: Travis Hubbard
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11901 Business Blvd
Eagle River, Alaska 99577
(907) 694-1383
ehslabs@ehs-alaska.com

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P05/Blower Room 236, southeast wall, on spray-on DP and concrete P-242F
AD11191-05 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	11		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.86	mg/kg	03/06/25 09:19	03/06/25 18:42	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q	Limits							
<i>Surrogate: Tetrachloro-m-xylene</i>	78%		10-112							
<i>Surrogate: Decachlorobiphenyl</i>	56%		10-123							

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Page 11 of 23

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00



EMSL Analytical, Inc.

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Telephone: 856-858-4800 Fax: cs@emsl.com
EMSL-CIN-01

Attention: Travis Hubbard
EHS Alaska, Inc. [ENV104]
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(907) 694-1383
ehslabs@ehs-alaska.com

EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results
(Continued)

Sample: UMES2502-P06/Generator Building Exterior P-228F
AD11191-06 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q		Limits						
Surrogate: Tetrachloro-m-xylene	69%			10-112		03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate: Decachlorobiphenyl	77%			10-123		03/06/25 09:19	03/06/25 16:52	R.C./AxJ	SW846 3546	SW846-8082A

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Page 12 of 23

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

**EMSL Analytical, Inc.**

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 EMSL-CIN-01

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 EHS Alaska, Inc. [ENV104]
 11901 Business Blvd
 Eagle River, Alaska 99577
 (907) 694-1383
 ehslabs@ehs-alaska.com

EMSL Order ID: 012511191**LIMS Reference ID:** AD111191**EMSL Customer ID:** ENVI04**Project Name:** 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P07/School Exterior P-1185T
 AD111191-07 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	1.1	mg/kg	03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q		Limits						
<i>Surrogate: Tetrachloro-m-xylene</i>	74%			10-112		03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A
<i>Surrogate: Decachlorobiphenyl</i>	66%			10-123		03/06/25 09:19	03/06/25 19:04	R.C./AxJ	SW846 3546	SW846-8082A

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Page 13 of 23

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00



EMSL Analytical, Inc.

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EMSL-CIN-01

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11901 Business Blvd
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ehslabs@ehs-alaska.com

EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results
(Continued)

Sample: UMES2502-P08/School Exterior P-297
AD11191-08 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	2.0		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	2.3		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	1.3		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q	Limits							
Surrogate: Tetrachloro-m-xylene	69%			10-112		03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate: Decachlorobiphenyl	66%			10-123		03/06/25 09:19	03/06/25 19:26	R.C./AxJ	SW846 3546	SW846-8082A

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Page 14 of 23

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
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 EMSL-CIN-01

EMSL Order ID: 012511191**LIMS Reference ID:** AD11191**EMSL Customer ID:** ENVI04

Attention: Travis Hubbard
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 Eagle River, Alaska 99577
 (907) 694-1383
 ehslabs@ehs-alaska.com

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P09/School Exterior P-1197T
 AD11191-09 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1221	ND	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1232	ND	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1242	ND	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1248	ND	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1254	540	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1260	ND	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1262	ND	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Aroclor-1268	ND	D	200	50	mg/kg	03/06/25 09:19	03/07/25 11:39	R.C./TL1	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q	Limits							
<i>Surrogate: Tetrachloro-m-xylene</i>	%	S8	10-112							
<i>Surrogate: Decachlorobiphenyl</i>	%	S8	10-123							

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Page 15 of 23

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00



EMSL Analytical, Inc.

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ehslabs@ehs-alaska.com

EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results
(Continued)

Sample: UMES2502-P10/School Exterior P-1212T
AD11191-10 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.26	mg/kg	03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q		Limits						
<i>Surrogate: Tetrachloro-m-xylene</i>	67%			10-112		03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A
<i>Surrogate: Decachlorobiphenyl</i>	72%			10-123		03/06/25 09:19	03/06/25 20:10	R.C./AxJ	SW846 3546	SW846-8082A

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Page 16 of 23

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
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 EMSL-CIN-01

EMSL Order ID: 012511191**LIMS Reference ID:** AD111191**EMSL Customer ID:** ENVI04

Attention: Travis Hubbard
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 (907) 694-1383
 ehslabs@ehs-alaska.com

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P11/School Exterior P-301F
AD111191-11 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.25	mg/kg	03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q		Limits						
<i>Surrogate: Tetrachloro-m-xylene</i>	72%			10-112		03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A
<i>Surrogate: Decachlorobiphenyl</i>	75%			10-123		03/06/25 09:19	03/06/25 20:32	R.C./AxJ	SW846 3546	SW846-8082A

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Page 17 of 23

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
 Telephone: 856-858-4800 Fax: cs@emsl.com
 EMSL-CIN-01

EMSL Order ID: 012511191**LIMS Reference ID:** AD11191**EMSL Customer ID:** ENVI04

Attention: Travis Hubbard
 EHS Alaska, Inc. [ENVI04]
 11901 Business Blvd
 Eagle River, Alaska 99577
 (907) 694-1383
 ehslabs@ehs-alaska.com

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P12/School Exterior P-1260T
 AD11191-12 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.93	mg/kg	03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q		Limits						
<i>Surrogate: Tetrachloro-m-xylene</i>	73%			10-112		03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A
<i>Surrogate: Decachlorobiphenyl</i>	75%			10-123		03/06/25 09:19	03/06/25 20:54	R.C./AxJ	SW846 3546	SW846-8082A

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Page 18 of 23

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
 Telephone: 856-858-4800 Fax: cs@emsl.com
 EMSL-CIN-01

EMSL Order ID: 012511191**LIMS Reference ID:** AD111191**EMSL Customer ID:** ENVI04

Attention: Travis Hubbard
 EHS Alaska, Inc. [ENVI04]
 11901 Business Blvd
 Eagle River, Alaska 99577
 (907) 694-1383
 ehslabs@ehs-alaska.com

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Sample Results

(Continued)

Sample: UMES2502-P13/School Exterior P-303F
AD111191-13 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1221	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1232	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1242	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1248	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1254	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1260	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1262	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Aroclor-1268	ND		1	0.24	mg/kg	03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
Surrogate(s)	Recovery	Q		Limits						
<i>Surrogate: Tetrachloro-m-xylene</i>	73%			10-112		03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A
<i>Surrogate: Decachlorobiphenyl</i>	86%			10-123		03/06/25 09:19	03/06/25 21:16	R.C./AxJ	SW846 3546	SW846-8082A

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Page 19 of 23

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
 Telephone: 856-858-4800 Fax:cs@emsl.com
 EMSL-CIN-01

EMSL Order ID: 012511191**LIMS Reference ID:** AD11191**EMSL Customer ID:** ENVI04

Attention: Travis Hubbard
 EHS Alaska, Inc. [ENVI04]
 11901 Business Blvd
 Eagle River, Alaska 99577
 (907) 694-1383
 ehslabs@ehs-alaska.com

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Quality Control**GC-SVOA**

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BDC0531 - SW846 3546									
Blank (BDC0531-BLK1)				Prepared & Analyzed: 3/6/2025					
Aroclor-1016	ND	0.25	mg/kg						
Aroclor-1221	ND	0.25	mg/kg						
Aroclor-1232	ND	0.25	mg/kg						
Aroclor-1242	ND	0.25	mg/kg						
Aroclor-1248	ND	0.25	mg/kg						
Aroclor-1254	ND	0.25	mg/kg						
Aroclor-1260	ND	0.25	mg/kg						
Aroclor-1262	ND	0.25	mg/kg						
Aroclor-1268	ND	0.25	mg/kg						
Surrogate(s)									
Surrogate: Tetrachloro-m-xylene				0.5000		77	10-112		
Surrogate: Decachlorobiphenyl				0.5000		75	10-123		
LCS (BDC0531-BS1)				Prepared & Analyzed: 3/6/2025					
Aroclor-1016	3.41	0.25	mg/kg	5.000		68	23-111		
Aroclor-1260	3.64	0.25	mg/kg	5.000		73	29-119		
Surrogate(s)									
Surrogate: Tetrachloro-m-xylene				0.5000		81	10-112		
Surrogate: Decachlorobiphenyl				0.5000		80	10-123		
Matrix Spike (BDC0531-MS1)				Source: AD11191-06		Prepared & Analyzed: 3/6/2025			
Aroclor-1016	2.73	0.25	mg/kg	4.926	ND	55	10-111		
Aroclor-1260	3.00	0.25	mg/kg	4.926	ND	61	10-132		
Surrogate(s)									
Surrogate: Tetrachloro-m-xylene				0.4926		62	10-112		
Surrogate: Decachlorobiphenyl				0.4926		67	10-123		
Matrix Spike Dup (BDC0531-MSD1)				Source: AD11191-06		Prepared & Analyzed: 3/6/2025			
Aroclor-1016	2.49	0.25	mg/kg	5.000	ND	50	10-111	9	28
Aroclor-1260	2.79	0.25	mg/kg	5.000	ND	56	10-132	7	28
Surrogate(s)									
Surrogate: Tetrachloro-m-xylene				0.5000		55	10-112		
Surrogate: Decachlorobiphenyl				0.5000		61	10-123		

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Page 20 of 23

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
 Telephone: 856-858-4800 Fax: cs@emsl.com
 EMSL-CIN-01

Attention: Travis Hubbard
 EHS Alaska, Inc. [ENVI04]
 11901 Business Blvd
 Eagle River, Alaska 99577
 (907) 694-1383
 ehslabs@ehs-alaska.com

EMSL Order ID: 012511191**LIMS Reference ID:** AD111191**EMSL Customer ID:** ENVI04**Project Name:** 8193-Ursa Major Demo & Replacement

Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 02/25/2025 09:40
Reported: 03/11/2025 17:07

Certified Analyses included in this Report

Analyte	CAS #	Certifications
SW846-8082A in Solid		
Aroclor-1016	12674-11-2	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1221	11104-28-2	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1232	11141-16-5	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1242	53469-21-9	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1248	12672-29-6	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1254	11097-69-1	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1260	11096-82-5	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1262	37324-23-5	NJDEP,NYSDOH,PADEP
Aroclor-1268	11100-14-4	NJDEP,NYSDOH,PADEP

List of Certifications

Code	Description	Number	Expires
PADEP	Pennsylvania Department of Environmental Protection	68-00367	11/30/2025
NYSDOH	New York State Department of Health	10872	04/01/2025
NJDEP	New Jersey Department of Environmental Protection	03036	06/30/2025
MADEP	Massachusetts Department of Environmental Protection	M-NJ337	06/30/2025
CTDPH	Connecticut Department of Public Health	PH-0270	06/23/2026
California ELAP	California Water Boards	1877	06/30/2025
AIHA LAP	EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-ELLAP Accredited	100194	03/01/2025
A2LA	A2LA Environmental Certificate	2845.01	07/31/2026

Please see the specific Field of Testing (FOT) on www.emsl.com <<http://www.emsl.com>> for a complete listing of parameters for which EMSL is certified.



EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:cs@emsl.com
EMSL-CIN-01

Attention: Travis Hubbard
EHS Alaska, Inc. [ENVI04]
11901 Business Blvd
Eagle River, Alaska 99577
(907) 694-1383
ehslabs@ehs-alaska.com

EMSL Order ID: 012511191

LIMS Reference ID: AD11191

EMSL Customer ID: ENVI04

Project Name: 8193-Ursa Major Demo & Replacement

Customer PO:

EMSL Sales Rep: Stefan Wiersgalla

Received: 02/25/2025 09:40

Reported: 03/11/2025 17:07

Notes and Definitions

Item	Definition
C	Sample double spiked with surrogate.
D	Analyte was reported from a dilution run.
S8	Surrogate recovery is outside the control limits due to dilution.
(Dig)	For metals analysis, sample was digested.
[2C]	Reported from the second channel in dual column analysis.
DA	Direct Analysis
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
NR	Spike/Surrogate showed no recovery.
Q	Qualifier
RL	Reporting Limit
Wet	Sample is not dry weight corrected.
%REC	Percent Recovery
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

Alliance TECHNICAL GROUP		Chain of Custody Record & Laboratory Services Agreement												
3600 Fremont Ave N. Seattle, WA 98103 Tel: 206-352-3790		Laboratory Project No (Internal): 2506147												
Client: EHS-Alaska, Inc.		Date: June 6, 2025		Page: 1 of 1		Special Remarks: Shipped Via FedEx, Waybill 8818 3870 9394 Routine Disposal Please call EHS-Alaska with any questions or comments.								
Address: 11901 Business Blvd, Suite 208		Project Name: Ursa Major ES Replacement		Project No: 8193		Disposal: Samples will be disposed in 30 days unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client								
City, State, Zip: Eagle River, Alaska, 99577		Collected by: Fisher Gandel		Location: School Exterior										
Telephone: (907) 694-1383		Report To (PM): emails below		Emails: ehs@ehs-alaska.com, cswallowski@ehs-alaska.com										
Email: ehs@ehs-alaska.com, fgandel@ehs-alaska.com, cswallowski@ehs-alaska.com														
Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	YOC (EPA 8260, E24)	BTEX (EPA 8260, E24)	Hydrocarbon Identification (HID)	Gasoline Range Organics (GX)	STOC (EPA 8270, E25)	PCB (EPA 8270, E25)	Metals (EPA 8270, E25)	Metals (EPA 8270, E25)	PCB (EPA 8270, E25)	Comments
1 UMES2506-PCB01	6/6/2025	N/A	S	1										PCB Soil @ adjacent to gen. bldg.
2 UMES2506-PCB02	6/6/2025	N/A	S	1										@ Front plater box left of entrance
3 UMES2506-PCB03	6/6/2025	N/A	S	1										@ OG Build front, left side
4 UMES2506-PCB04	6/6/2025	N/A	S	1										@ OG Build front, right side
5 UMES2506-PCB05	6/6/2025	N/A	S	1										@ Bushes right of SW entrance
6 UMES2506-PCB06	6/6/2025	N/A	S	1										@ Exterior of gym addn.
7 UMES2506-PCB07	6/6/2025	N/A	S	1										@ Trees along back of bldg, left side
8 UMES2506-PCB08	6/6/2025	N/A	S	1										@ Soil at corner of library addn.
9 UMES2506-PCB09	6/6/2025	N/A	S	1										@ '98 addn. corner
10 UMES2506-PCB10	6/6/2025	N/A	S	1										@ NE corner of OG MPR
**Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, VW = Waste Water														
**Metals (Circle): MTCA-5 PCB4-8 Priority Pollutants TAL Individual: Ag Al Ar B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Ni Pb Sb Se Si Sn Ti V Zn														
**Anions (Circle): Nitrate Nitrite Sulfate Bromide Chloride Fluoride Nitrate+Nitrite														
I represent that I am authorized to enter into this Agreement with Alliance Technical Group LLC on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.														
Relinquished (Signature) x <i>Fisher Gandel</i>		Print Name Fisher Gandel		Date/Time 6/6/2025, 11:00		Received (Signature) x <i>William Vallada</i>		Print Name William Vallada		Date/Time 6/6/25, 900		Turn-around Time: ☐ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☒ 2 Day (specify)		
Relinquished (Signature) x		Print Name		Date/Time		Received (Signature) x		Print Name		Date/Time				



3600 Fremont Ave N

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

EHS Alaska Inc

EHS Lab

11901 Business Blvd. Suite 208

Eagle River, AK 99577

RE: Ursa Major ES Replacement, 8193**Work Order Number: 2506147**

June 11, 2025

Attention EHS Lab:

Alliance Technical Group, LLC - Seattle received 10 sample(s) on 6/9/2025 for the analyses presented in the following report.

PCBs by EPA Method 8082A***Sample Moisture (Percent Moisture)***

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

A handwritten signature in blue ink, appearing to read "Brianna Barnes".

Brianna Barnes
Project Manager

CC:

Cali Stariwat

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

www.fremontanalytical.com



Date: 06/11/2025

CLIENT: EHS Alaska Inc
Project: Ursa Major ES Replacement
Work Order: 2506147

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2506147-001	UMES2506-PCB01	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-002	UMES2506-PCB02	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-003	UMES2506-PCB03	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-004	UMES2506-PCB04	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-005	UMES2506-PCB05	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-006	UMES2506-PCB06	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-007	UMES2506-PCB07	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-008	UMES2506-PCB08	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-009	UMES2506-PCB09	06/06/2025 12:00 AM	06/09/2025 9:00 AM
2506147-010	UMES2506-PCB10	06/06/2025 12:00 AM	06/09/2025 9:00 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Original

Page 2 of 21



Case Narrative

WO#: 2506147

Date: 6/11/2025

CLIENT: EHS Alaska Inc
Project: Ursa Major ES Replacement

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-001A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-002A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-002A) required Florisil Cleanup Procedure (Using Method No 3620C).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-001A) required Florisil Cleanup Procedure (Using Method No 3620C).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-003A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-004A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-005A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-006A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-007A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-008A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-009A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-010A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-010A) required Florisil Cleanup Procedure (Using Method No 3620C).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-009A) required Florisil Cleanup Procedure (Using Method No 3620C).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-008A) required Florisil Cleanup Procedure (Using Method No 3620C).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-007A) required Florisil Cleanup Procedure (Using Method No 3620C).

Original

Page 3 of 21



Case Narrative

WO#: 2506147

Date: 6/11/2025

CLIENT: EHS Alaska Inc
Project: Ursa Major ES Replacement

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-006A) required Florisil Cleanup Procedure (Using Method No 3620C).
Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-005A) required Florisil Cleanup Procedure (Using Method No 3620C).
Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-004A) required Florisil Cleanup Procedure (Using Method No 3620C).
Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2506147-003A) required Florisil Cleanup Procedure (Using Method No 3620C).

Original

Page 4 of 21



Qualifiers & Acronyms

WO#: 2506147

Date Reported: 6/11/2025

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate

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Page 5 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-001

Matrix: Soil

Client Sample ID: UMES2506-PCB01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>PCBs by EPA Method 8082A</u>				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Aroclor 1221	ND	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Aroclor 1232	ND	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Aroclor 1242	ND	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Aroclor 1248	ND	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Aroclor 1254	0.0270	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Aroclor 1260	0.0812	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Aroclor 1262	ND	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Aroclor 1268	ND	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Total PCBs	0.108	0.0263		mg/Kg-dry	1	6/11/2025 12:25:00 PM
Surr: Decachlorobiphenyl	94.5	36.6 - 160		%Rec	1	6/11/2025 12:25:00 PM
Surr: Tetrachloro-m-xylene	81.4	53.9 - 159		%Rec	1	6/11/2025 12:25:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R10044		Analyst: DI
Percent Moisture	24.4	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 6 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-002

Matrix: Soil

Client Sample ID: UMES2506-PCB02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBs by EPA Method 8082A				Batch ID: 48036		Analyst: CO
Aroclor 1016	ND	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Aroclor 1221	ND	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Aroclor 1232	ND	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Aroclor 1242	ND	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Aroclor 1248	ND	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Aroclor 1254	ND	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Aroclor 1260	0.0302	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Aroclor 1262	ND	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Aroclor 1268	ND	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Total PCBs	0.0302	0.0198		mg/Kg-dry	1	6/10/2025 4:01:39 PM
Surr: Decachlorobiphenyl	62.4	36.6 - 160		%Rec	1	6/10/2025 4:01:39 PM
Surr: Tetrachloro-m-xylene	54.9	53.9 - 159		%Rec	1	6/10/2025 4:01:39 PM
Sample Moisture (Percent Moisture)				Batch ID: R10044		Analyst: DI
Percent Moisture	2.31	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 7 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-003

Matrix: Soil

Client Sample ID: UMES2506-PCB03

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>PCBs by EPA Method 8082A</u>				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Aroclor 1221	ND	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Aroclor 1232	ND	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Aroclor 1242	ND	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Aroclor 1248	ND	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Aroclor 1254	0.0365	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Aroclor 1260	0.0281	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Aroclor 1262	ND	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Aroclor 1268	ND	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Total PCBs	0.0646	0.0245		mg/Kg-dry	1	6/11/2025 12:35:00 PM
Surr: Decachlorobiphenyl	150	36.6 - 160		%Rec	1	6/11/2025 12:35:00 PM
Surr: Tetrachloro-m-xylene	138	53.9 - 159		%Rec	1	6/11/2025 12:35:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R10044		Analyst: DI
Percent Moisture	23.0	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 8 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-004

Matrix: Soil

Client Sample ID: UMES2506-PCB04

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBs by EPA Method 8082A				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Aroclor 1221	ND	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Aroclor 1232	ND	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Aroclor 1242	ND	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Aroclor 1248	ND	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Aroclor 1254	0.0377	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Aroclor 1260	ND	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Aroclor 1262	ND	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Aroclor 1268	ND	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Total PCBs	0.0377	0.0237		mg/Kg-dry	1	6/11/2025 2:50:00 PM
Surr: Decachlorobiphenyl	157	36.6 - 160		%Rec	1	6/11/2025 2:50:00 PM
Surr: Tetrachloro-m-xylene	134	53.9 - 159		%Rec	1	6/11/2025 2:50:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R10044		Analyst: DI
Percent Moisture	21.9	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 9 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-005

Matrix: Soil

Client Sample ID: UMES2506-PCB05

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBs by EPA Method 8082A				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Aroclor 1221	ND	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Aroclor 1232	ND	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Aroclor 1242	ND	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Aroclor 1248	ND	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Aroclor 1254	0.0506	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Aroclor 1260	0.0401	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Aroclor 1262	ND	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Aroclor 1268	ND	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Total PCBs	0.0907	0.0213		mg/Kg-dry	1	6/11/2025 2:59:00 PM
Surr: Decachlorobiphenyl	137	36.6 - 160		%Rec	1	6/11/2025 2:59:00 PM
Surr: Tetrachloro-m-xylene	131	53.9 - 159		%Rec	1	6/11/2025 2:59:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R10044		Analyst: DI
Percent Moisture	9.89	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 10 of 21



Analytical Report

Work Order: 2506147
Date Reported: 6/11/2025

Client: EHS Alaska Inc
Project: Ursa Major ES Replacement
Lab ID: 2506147-006
Client Sample ID: UMES2506-PCB06

Collection Date: 6/6/2025

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>PCBs by EPA Method 8082A</u>				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Aroclor 1221	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Aroclor 1232	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Aroclor 1242	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Aroclor 1248	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Aroclor 1254	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Aroclor 1260	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Aroclor 1262	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Aroclor 1268	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Total PCBs	ND	0.0247		mg/Kg-dry	1	6/11/2025 12:45:19 PM
Surr: Decachlorobiphenyl	131	36.6 - 160		%Rec	1	6/11/2025 12:45:19 PM
Surr: Tetrachloro-m-xylene	128	53.9 - 159		%Rec	1	6/11/2025 12:45:19 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R10044		Analyst: DI
Percent Moisture	20.3	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 11 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-007

Matrix: Soil

Client Sample ID: UMES2506-PCB07

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBs by EPA Method 8082A				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Aroclor 1221	ND	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Aroclor 1232	ND	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Aroclor 1242	ND	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Aroclor 1248	ND	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Aroclor 1254	0.159	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Aroclor 1260	0.0504	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Aroclor 1262	ND	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Aroclor 1268	ND	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Total PCBs	0.210	0.0257		mg/Kg-dry	1	6/11/2025 3:09:00 PM
Surr: Decachlorobiphenyl	156	36.6 - 160		%Rec	1	6/11/2025 3:09:00 PM
Surr: Tetrachloro-m-xylene	139	53.9 - 159		%Rec	1	6/11/2025 3:09:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R10044		Analyst: DI
Percent Moisture	24.6	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 12 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-008

Matrix: Soil

Client Sample ID: UMES2506-PCB08

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBs by EPA Method 8082A				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Aroclor 1221	ND	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Aroclor 1232	ND	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Aroclor 1242	ND	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Aroclor 1248	ND	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Aroclor 1254	0.430	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Aroclor 1260	0.0819	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Aroclor 1262	ND	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Aroclor 1268	ND	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Total PCBs	0.512	0.0213		mg/Kg-dry	1	6/11/2025 3:19:00 PM
Surr: Decachlorobiphenyl	128	36.6 - 160		%Rec	1	6/11/2025 3:19:00 PM
Surr: Tetrachloro-m-xylene	130	53.9 - 159		%Rec	1	6/11/2025 3:19:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R10044		Analyst: DI
Percent Moisture	8.60	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 13 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-009

Matrix: Soil

Client Sample ID: UMES2506-PCB09

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBs by EPA Method 8082A				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Aroclor 1221	ND	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Aroclor 1232	ND	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Aroclor 1242	ND	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Aroclor 1248	ND	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Aroclor 1254	0.0317	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Aroclor 1260	ND	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Aroclor 1262	ND	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Aroclor 1268	ND	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Total PCBs	0.0512	0.0205		mg/Kg-dry	1	6/11/2025 3:28:00 PM
Surr: Decachlorobiphenyl	126	36.6 - 160		%Rec	1	6/11/2025 3:28:00 PM
Surr: Tetrachloro-m-xylene	129	53.9 - 159		%Rec	1	6/11/2025 3:28:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R10044		Analyst: DI
Percent Moisture	7.78	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 14 of 21



Analytical Report

Work Order: 2506147

Date Reported: 6/11/2025

Client: EHS Alaska Inc

Collection Date: 6/6/2025

Project: Ursa Major ES Replacement

Lab ID: 2506147-010

Matrix: Soil

Client Sample ID: UMES2506-PCB10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>PCBs by EPA Method 8082A</u>				Batch ID: 48052		Analyst: CO
Aroclor 1016	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Aroclor 1221	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Aroclor 1232	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Aroclor 1242	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Aroclor 1248	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Aroclor 1254	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Aroclor 1260	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Aroclor 1262	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Aroclor 1268	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Total PCBs	ND	0.0207		mg/Kg-dry	1	6/11/2025 3:38:27 PM
Surr: Decachlorobiphenyl	138	36.6 - 160		%Rec	1	6/11/2025 3:38:27 PM
Surr: Tetrachloro-m-xylene	124	53.9 - 159		%Rec	1	6/11/2025 3:38:27 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R10044		Analyst: DI
Percent Moisture	5.43	0.500		wt%	1	6/10/2025 9:38:38 AM

Original

Page 15 of 21

Date: 6/11/2025



Work Order: 2506147
CLIENT: EHS Alaska Inc
Project: Ursa Major ES Replacement
QC SUMMARY REPORT
PCBs by EPA Method 8082A

Sample ID: 2506147-002AMS	SampType: MS	Units: mg/kg-dry	Prep Date: 6/9/2025	RunNo: 100480							
Client ID: UMES2506-PCB02	Batch ID: 48036		Analysis Date: 6/10/2025	SeqNo: 2093823							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.353	0.0198	0.9890	0	35.7	51	160				S
Aroclor 1260	0.311	0.0198	0.9890	0.03015	28.4	51.8	160				S
Surr: Decachlorobiphenyl	80.4		197.8		40.6	36.6	160				
Surr: Tetrachloro-m-xylene	75.7		197.8		38.3	53.9	159				S
NOTES:											
S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.											
S - Outlying surrogate recovery observed.											

Sample ID: 2506147-002AMSD	SampType: MSD	Units: mg/Kg-dry	Prep Date: 6/9/2025	RunNo: 100480							
Client ID: UMES2506-PCB02	Batch ID: 48036		Analysis Date: 6/10/2025	SeqNo: 2093824							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.428	0.0198	0.9919	0	43.2	51	160	0.3529	19.3	30	S
Aroclor 1260	0.357	0.0198	0.9919	0.03015	33.0	51.8	160	0.3115	13.6	30	S
Surr: Decachlorobiphenyl	84.6		198.4		42.6	36.6	160		0		
Surr: Tetrachloro-m-xylene	92.1		198.4		46.4	53.9	159		0		S
NOTES:											
S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.											
S - Outlying surrogate recovery observed.											

Sample ID: MB-48036		SampType: MBLK		Units: mg/Kg		Prep Date: 6/9/2025		RunNo: 100480			
Client ID: MBLKS		Batch ID: 48036				Analysis Date: 6/11/2025		SeqNo: 2094790			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0200									
Aroclor 1221	ND	0.0200									
Aroclor 1232	ND	0.0200									
Aroclor 1242	ND	0.0200									
Aroclor 1248	ND	0.0200									
Aroclor 1254	ND	0.0200									
Aroclor 1260	ND	0.0200									
Aroclor 1262	ND	0.0200									
Aroclor 1268	ND	0.0200									

Original

Date: 6/11/2025



Work Order: 2506147
CLIENT: EHS Alaska Inc
Project: Ursa Major ES Replacement

QC SUMMARY REPORT
PCBs by EPA Method 8082A

Sample ID: MB-48036	SampleType: MBLK	Units: mg/kg	Prep Date: 6/9/2025	RunNo: 100480							
Client ID: MBLKS	Batch ID: 48036		Analysis Date: 6/11/2025	SeqNo: 2094790							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total PCBs	ND	0.0200									
Surr: Decachlorobiphenyl	271		200.0		135	39.9	158				
Surr: Tetrachloro-m-xylene	251		200.0		126	53.9	160				

Sample ID: LCS-48036	SampleType: LCS	Units: mg/Kg	Prep Date: 6/9/2025	RunNo: 100480							
Client ID: LCSS	Batch ID: 48036		Analysis Date: 6/11/2025	SeqNo: 2094791							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.15	0.0200	1.000	0	115	53	160				
Aroclor 1260	1.18	0.0200	1.000	0	118	51.1	160				
Surr: Decachlorobiphenyl	343		200.0		171	36.6	160				S
Surr: Tetrachloro-m-xylene	256		200.0		128	53.9	159				

NOTES:
S - Outlying surrogate recovery observed.

Sample ID: LCSD-48036	SampleType: LCSD	Units: mg/Kg		Prep Date: 6/9/2025	RunNo: 100480						
Client ID: LCSS02	Batch ID: 48036			Analysis Date: 6/11/2025	SeqNo: 2094792						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.20	0.0200	1.000	0	120	53	160	1.153	4.04	20	
Aroclor 1260	1.13	0.0200	1.000	0	113	51.1	160	1.179	4.12	20	
Surr: Decachlorobiphenyl	293		200.0		147	36.6	160		0		
Surr: Tetrachloro-m-xylene	256		200.0		128	53.9	159		0		

Sample ID: 2506147-006AMS	SampleType: MS	Units: mg/Kg-dry			Prep Date: 6/10/2025	RunNo: 100514					
Client ID: UMES2506-PCB06	Batch ID: 48052				Analysis Date: 6/11/2025	SeqNo: 2094603					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.59	0.0246	1.232	0	129	51	160				
Aroclor 1260	1.50	0.0246	1.232	0	122	51.8	160				
Surr: Decachlorobiphenyl	370		246.4		150	36.6	160				

Original

Page 17 of 21

Date: 6/11/2025



Work Order: 2506147
CLIENT: EHS Alaska Inc
Project: Ursa Major ES Replacement
QC SUMMARY REPORT
PCBs by EPA Method 8082A

Sample ID: 2506147-006AMS	SampType: MS	Units: mg/Kg-dry	Prep Date: 6/10/2025	RunNo: 100514							
Client ID: UMES2506-PCB06	Batch ID: 48052		Analysis Date: 6/11/2025	SeqNo: 2094603							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 2506147-006AMSD	SampType: MSD	Units: mg/Kg-dry		Prep Date: 6/10/2025	RunNo: 100514						
Client ID: UMES2506-PCB06	Batch ID: 48052			Analysis Date: 6/11/2025	SeqNo: 2094604						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: MB-48052	SampType: MBLK	Units: mg/Kg		Prep Date: 6/10/2025	RunNo: 100514						
Client ID: MBLKS	Batch ID: 48052			Analysis Date: 6/11/2025	SeqNo: 2094605						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0200									
Aroclor 1221	ND	0.0200									
Aroclor 1232	ND	0.0200									
Aroclor 1242	ND	0.0200									
Aroclor 1248	ND	0.0200									
Aroclor 1254	ND	0.0200									
Aroclor 1260	ND	0.0200									
Aroclor 1262	ND	0.0200									
Aroclor 1268	ND	0.0200									
Total PCBs	ND	0.0200									
Surr: Decachlorobiphenyl	277		200.0		138	39.9	158				
Surr: Tetrachloro-m-xylene	257		200.0		129	53.9	160				

Original

Page 18 of 21

Date: 6/11/2025



Work Order: 2506147
CLIENT: EHS Alaska Inc
Project: Ursa Major ES Replacement

QC SUMMARY REPORT
PCBs by EPA Method 8082A

Sample ID: LCS-48052	Sample Type: LCS	Units: mg/kg		Prep Date: 6/10/2025	RunNo: 100514						
Client ID: LCSS	Batch ID: 48052			Analysis Date: 6/11/2025	SeqNo: 2094606						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.19	0.0200	1.000	0	119	53	160				
Aroclor 1260	1.11	0.0200	1.000	0	111	51.1	160				
Surr: Decachlorobiphenyl	262		200.0		131	36.6	160				
Surr: Tetrachloro-m-xylene	247		200.0		123	53.9	159				



Sample Log-In Check List

Client Name: EHS AK

Work Order Number: 2506147

Logged by: Morgan Wilson

Date Received: 6/9/2025 9:00:00 AM

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☐ No ☒ NA ☐
5. Were all items received at a temperature of >2°C to 6°C * Unknown prior to receipt. Yes ☐ No ☐ NA ☒
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	23.4

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Original

Page 20 of 21

APPENDIX E

Mercury TCLP Sample Field Survey Data Sheets and Laboratory Reports

AD12079

**EHS** ALASKA
INCORPORATED

EHS-Alaska, Inc.

11901 Business Blvd., Suite 208, Eagle River, AK 99577

(907) 694-1383 • (907) 694-1382 fax

e-mail • ehsak@ehs-alaska.com

PROJECT NO: 8193	PROJECT NAME: Ursa Major Demo & Replacement	FACILITY: Ursa Major Elementary School	COLLECTION DATE: 02/13-19/25
----------------------------	---	--	--

CHAIN OF CUSTODY RECORD				
ANALYSIS REQUESTED:	☒ 7471A TOTAL MERCURY	☐ SW 846 1311 TCLP	TYPE:	TURNAROUND:
			☒ MERCURY (Hg)	2 WEEKS
			☐ LEAD	DISPOSAL:
				NORMAL
				QUANTITY
				1

COLLECTED BY (signature) <i>Travis W. Hubbard & Fisher G. Gandel</i> PRINTED NAME Travis W. Hubbard & Fisher G. Gandel 00006140 / 0-935 & 20241023 / T-31317-45276 CERT# / AHERA# SHIPPING METHOD 7724-8500-1370 COURIER (signature) DATE/TIME	EMSL Analytical, Cinnaminson, NJ Lab SELECTED LABORATORY <i>UM FT</i> SAMPLES ACCEPTED BY <i>3/6/25 1008</i> DATE/TIME ANALYST'S SIGNATURE DATE	SPECIAL INSTRUCTIONS / COMMENTS: LAB: RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA, INC. Analyze sample UMES2502-M01 for total mercury first and provide results and hold for possible TCLP analysis. <i>Total Mercury</i>
---	--	--

FIELD SURVEY DATA			
EHS SAMPLE NO. LAB ID NO	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS FOR EHS-ALASKA USE ONLY
① UMES2502-M01	Light Green/Gray Rubber Gym Flooring	Gym 184, east corner adjacent to office doorway. P-224F	<i>170 mg/kg</i> <i>6.3 mg/liter</i>
--END--	--END--	--END--	
		<i>TCLP Mercury</i>	

Monneely 3/6/25 0930

1

Table of Contents



EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax: cs@emsl.com
EMSL-CIN-01

EMSL Order ID: 012512079

LIMS Reference ID: AD12079

EMSL Customer ID: ENVI04

May 05, 2025

Travis Hubbard
EHS Alaska, Inc. [ENVI04]
11901 Business Blvd
Eagle River, Alaska 99577

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 3/6/2025. The results are tabulated on the attached pages for the following client designated project:

Ursa Major Demo & Replacement

The reference number for these samples is EMSL Order #: AD12079 . Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact the lab at 856-858-4800.

Owen McKenna Laboratory Manager or other approved signatory

Table of Contents

Table of Contents

Cover Letter	1
Sample Condition on Receipt	3
Samples in Report	4
Positive Hits Summary	5
Case Narratives Work Order	6
Sample Results	7
Quality Assurance Results	8
Qualifiers, Definitions and Disclaimer	9
Chain of Custody PDF	10
SubReports	11

Table of Contents



EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:cs@emsl.com
EMSL-CIN-01

Attention: Travis Hubbard
EHS Alaska, Inc. [ENVI04]
11901 Business Blvd
Eagle River, Alaska 99577
(907) 694-1383
ehslabs@ehs-alaska.com

Project Name: Ursa Major Demo & Replacement

Customer PO: 8193
EMSL Sales Rep: Stefan Wiersgalla
Received: 03/06/2025 09:30
Reported: 05/05/2025 18:41

EMSL Order ID: 012512079

LIMS Reference ID: AD12079

EMSL Customer ID: ENVI04

Sample Condition on Receipt

Cooler ID: Default Cooler **Temperature:** °C

Custody Seals	Y
Containers Intact	Y
COC/Labels Agree	Y
Preservation Confirmed	Y

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

Table of Contents



EMSL Analytical, Inc.

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Telephone: 856-858-4800 Fax:cs@emsl.com
EMSL-CIN-01

Attention: Travis Hubbard
EHS Alaska, Inc. [ENVI04]
11901 Business Blvd
Eagle River, Alaska 99577
(907) 694-1383
ehslabs@ehs-alaska.com

EMSL Order ID: 012512079
LIMS Reference ID: AD12079
EMSL Customer ID: ENVI04

Project Name: Ursa Major Demo & Replacement

Customer PO: 8193
EMSL Sales Rep: Stefan Wiersgalla
Received: 03/06/2025 09:30
Reported: 05/05/2025 18:41

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
AD12079-01	UMES2502-M01	Solid	2/13/25 12:00 am	03/06/2025

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

Page 4 of 29

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

Table of Contents



EMSL Analytical, Inc.

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11901 Business Blvd
Eagle River, Alaska 99577
(907) 694-1383
ehslabs@ehs-alaska.com

EMSL Order ID: 012512079

LIMS Reference ID: AD12079

EMSL Customer ID: ENVI04

Project Name: Ursa Major Demo & Replacement

Customer PO: 8193

EMSL Sales Rep: Stefan Wiersgalla

Received: 03/06/2025 09:30

Reported: 05/05/2025 18:41

Positive Hits Summary

Lab ID	Client ID	Sampled			
AD12079-01	UMES2502-M01	02/13/25 00:00			
Method	Analyte	Result	Qualifier	Unit	Analyzed
SW846 7471B	Mercury	170	HT4, D	mg/kg	03/20/2025 11:14

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Page 5 of 29

Table of Contents



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Eagle River, Alaska 99577
(907) 694-1383
ehslabs@ehs-alaska.com

Project Name: Ursa Major Demo & Replacement

Customer PO: 8193
EMSL Sales Rep: Stefan Wiersgalla
Received: 03/06/2025 09:30
Reported: 05/05/2025 18:41

EMSL Order ID: 012512079

LIMS Reference ID: AD12079

EMSL Customer ID: ENVI04

Work Order Case Narrative

Revised report- TCLP Mercury analysis per customer request. (3/20/2025)

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

Table of Contents



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(907) 694-1383
ehslabs@ehs-alaska.com

Project Name: Ursa Major Demo & Replacement

Customer PO: 8193
EMSL Sales Rep: Stefan Wiersgalla
Received: 03/06/2025 09:30
Reported: 05/05/2025 18:41

EMSL Order ID: 012512079

LIMS Reference ID: AD12079

EMSL Customer ID: ENVI04

Sample Results

Sample: UMES2502-M01/Gym 184, east corner adjacent to office doorway. P-224F
AD12079-01 (Solid)

Analyte	Result	Q	DF	MDL	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
Metals											
Mercury	170	HT4, D	200	9.9	9.9	mg/kg	03/19/25 11:07	03/20/25 11:14	BL/BL	SW846 7471B	SW846 7471B

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Page 7 of 29

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

Table of Contents



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11901 Business Blvd
Eagle River, Alaska 99577
(907) 694-1383
ehslabs@ehs-alaska.com

EMSL Order ID: 012512079

LIMS Reference ID: AD12079

EMSL Customer ID: ENVI04

Project Name: Ursa Major Demo & Replacement

Customer PO: 8193
EMSL Sales Rep: Stefan Wiersgalla
Received: 03/06/2025 09:30
Reported: 05/05/2025 18:41

Quality Control

Metals

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BDC1954 - SW846 7471B									
Blank (BDC1954-BLK1)									
Mercury	ND	0.050	mg/kg	Prepared: 3/19/2025		Analyzed: 3/20/2025			
LCS (BDC1954-BS1)									
Mercury	0.765	0.050	mg/kg	0.7451	103	80-120			
Duplicate (BDC1954-DUP1)									
Source: AD12079-01			Prepared: 3/19/2025		Analyzed: 3/20/2025				
Mercury	173 D	10	mg/kg	171	0.8		20		
Matrix Spike (BDC1954-MS1)									
Source: AD12079-01			Prepared: 3/19/2025		Analyzed: 3/20/2025				
Mercury	250 R1, D	10	mg/kg	0.7568	171	NR	80-120		
Reference (BDC1954-SRM1)									
Prepared: 3/19/2025		Analyzed: 3/20/2025							
Mercury	4.33 D	0.50	mg/kg	4.303	101	0-200			

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Page 8 of 29

Table of Contents



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11901 Business Blvd
Eagle River, Alaska 99577
(907) 694-1383
ehslabs@ehs-alaska.com

Project Name: Ursa Major Demo & Replacement

Customer PO: 8193
EMSL Sales Rep: Stefan Wiersgalla
Received: 03/06/2025 09:30
Reported: 05/05/2025 18:41

EMSL Order ID: 012512079

LIMS Reference ID: AD12079

EMSL Customer ID: ENVI04

Notes and Definitions

Item	Definition
D	Analyte was reported from a dilution run.
HT4	The extraction for this sample was performed outside of the EPA recommended holding time, but analyzed within holding time.
R1	Recovery is outside of the method control limits.
(Dig)	For metals analysis, sample was digested.
[2C]	Reported from the second channel in dual column analysis.
DA	Direct Analysis
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
NR	Spike/Surrogate showed no recovery.
Q	Qualifier
RCS	Respirable Crystalline Silica
RL	Reporting Limit
Wet	Sample is not dry weight corrected.
%REC	Percent Recovery
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

Table of Contents



May 05, 2025

Service Request No:K2504206

Barbara Carter
EMSL Analytical, Incorporated
200 Route 130 North
Cinnaminson, NJ 08077

Laboratory Results for:

Dear Barbara,

Enclosed are the results of the sample(s) submitted to our laboratory April 24, 2025
For your reference, these analyses have been assigned our service request number **K2504206**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

A handwritten signature in black ink, appearing to read "Sydney A. Rahn", is written over a light blue horizontal line.

for Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

2 of 19

Page 12 of 29

Table of Contents



1317 South 13th Ave, Kelso, WA 98626 | 1-360-577-7222 | www.alsglobal.com

Client: EMSL Analytical, Incorporated
Project:
Sample Matrix: Misc. Solid

Service Request: K2504206
Date Received: 04/24/2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier I level requested by the client.

Sample Receipt:

One misc. solid sample was received for analysis at ALS Environmental on 04/24/2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

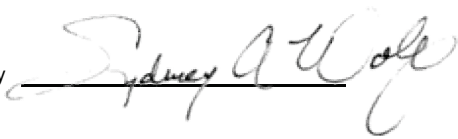
Approved by  Date 05/05/2025

Table of Contents



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: AD12079-01			Lab ID: K2504206-001			
Analyte	Results	Flag	MDL	MRL	Units	Method
Mercury	6.3			2.0	mg/L	7470A



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

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5 of 19

Page 15 of 29

Table of Contents

Client: EMSL Analytical, Incorporated
Project:

Service Request:K2504206

SAMPLE CROSS-REFERENCE			
<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2504206-001	AD12079-01	2/13/2025	

EMSL Analytical, Inc. Environmental Chemistry Lab Service 200 Route 130 North, Cinnaminson, NJ 08077 TEL: (856) 858-4800 FAX: (856) 786-5974		Chain of Custody / Analysis Request Form Print ALL Information. Incomplete chain of custody could result in the delay of analysis.				EMSL Project # AD12079 Account Rep: — Indicate State where samples were collected: AK	
REPORT RESULTS TO: Name: Travis Aherl PO#: — Company EMSL Analytical, Inc. Address: 200 Route 130 North City: Cinnaminson		SEND INVOICE TO: Name: PO#: 43627-01B Company EMSL Analytical, Inc. Address: 200 Route 130 North City: Cinnaminson		Turnaround Time - 10 Business Days DUE 4/17 Analytical Laboratory Services 4208 S Santa Rita Ave Tucson, AZ 85714 520-573-1061			
State: NJ Zip: 08077 Tel: 856-858-4800 ext. 2548 Fax: 856-854-2362 Email: sublab@emsl.com		State: NJ Zip: 08077 Tel: 856-858-4800 Fax: 856-854-2362		PROJECT NAME: Date of Sample Shipment: 4/2/25			
Sampled by: (Signature) EMSL CLIENT		# of Samples in Shipment: 1		List Method and Test Needed			
Lab Sample Number	Matrix	Preservative	Sampling	DATE	TIME	TCLP Hg	
1. AD12079-01	Waste Water	NaOH H2SO4 HNO3 HCl OTHER		2/13/25		X	
2.							
3.							
4.							
5.							
Released By Signature	Date & Time Released	Delivery Method	Received By Signature	Date & Time Received	Condition Noted		
<i>[Signature]</i>	4/2/25	FedEx	<i>[Signature]</i>	4/4/25 1158			
Please indicate reporting requirements: ☐ 1. Results Only ☒ 2. Results add QC ☐ 3. Reduced Deliverables ☐ 4. Disk Deliverable ☐ 5. Other		Comments: Send to ALS Kelso after cryo grinding is completed.					

Table of Contents

Client ALS Tucson Cooler Receipt and Preservation Form Service Request K25 04206 PM Lecke
Received: 4/24/25 Opened: 4/24/25 By: VM Unloaded: 4/24/25 By: VM

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp. Indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
						<u>187881251574</u>	

4. Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column below:

If no, take the temperature of a representative sample bottle contained within the cooler; note in the column "Sample Temp":

5. Were samples received within the method specified temperature ranges?

If no, were they received on ice and same day as collected? If not, note the cooler # below and notify the PM.

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____

7. Were custody papers properly filled out (ink, signed, etc.)?

8. Were samples received in good condition (unbroken)

9. Were all sample labels complete (ie, analysis, preservation, etc.)?

10. Did all sample labels and tags agree with custody papers?

11. Were appropriate bottles/containers and volumes received for the tests indicated?

12. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? Indicate in the table below

13. Were VOA vials received without headspace? Indicate in the table below.

14. Was C12/Res negative?

15. Were samples received within method specified time limit? If not, note the error below and notify the PM.

16. Were 100mL sterile microbiology bottles filled exactly to the 100mL mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Miscellaneous Forms

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9 of 19

Page 19 of 29

Table of Contents

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value over the calibration range.
- J The result is an estimated value between the MDL and the MRL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- p The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

Table of Contents

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

Table of Contents

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Table of Contents

ALS Group USA, Corp.
dba ALS Environmental
Analyst Summary report

Client: EMSL Analytical, Incorporated
Project: /AD12079
Service Request: K2504206

Sample Name: AD12079-01
Lab Code: K2504206-001
Sample Matrix: Misc. Solid
Date Collected: 02/13/25
Date Received: 04/24/25

Analysis Method
7470A
Extracted/Digested By
MSOLADEY
Analyzed By
MSOLADEY



Sample Results

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14 of 19

Page 24 of 29



Metals

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15 of 19

Page 25 of 29

Table of Contents

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EMSL Analytical, Incorporated
Project: AD12079
Sample Matrix: Misc. Solid
Sample Name: AD12079-01
Lab Code: K2504206-001

Service Request: K2504206
Date Collected: 02/13/25
Date Received: 04/24/25 09:50
Basis: NA

Toxicity Characteristics Leachate Procedure (TCLP)
TCLP Metals

Pre-Prep Method: EPA 1311

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7470A	6.3	mg/L	2.0	2000	05/01/25 13:09	04/30/25	



QC Summary Forms

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17 of 19

Page 27 of 29



Metals

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18 of 19

Page 28 of 29

Table of Contents

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EMSL Analytical, Incorporated
Project: AD12079
Sample Matrix: Misc. Solid
Sample Name: Method Blank
Lab Code: KQ2506962-01

Service Request: K2504206
Date Collected: NA
Date Received: NA
Basis: NA

Toxicity Characteristics Leachate Procedure (TCLP)
TCLP Metals

Pre-Prep Method: EPA 1311

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Mercury	7470A	ND U	mg/L	0.0010	1	05/01/25 11:03	04/30/25	

APPENDIX F

Lead Analyzer Test Results

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

LEAD ANALYZER TEST RESULTS

SciAps, X-550 Pb, Serial #01052

NO.	SITE	INSPECTOR	FLOOR	ROOM	COMPONENT	SUBSTRATE	CONDITION	COLOR	TIME	RESULTS	
										LBP	mg/cm ² +/- ERROR
1	UMES	HUBBARD	-	-	CALIBRATE	METAL	INTACT	SILVER	2/13/2025 9:11	POSITIVE	1.0257 0.0332
2	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/13/2025 9:11	POSITIVE	1.0211 0.0311
3	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/13/2025 9:11	POSITIVE	1.0248 0.031
4	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/13/2025 9:11	POSITIVE	1.0239 0.0183
5	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/13/2025 15:27	POSITIVE	1.016 0.0167
6	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/13/2025 15:28	POSITIVE	1.0351 0.0169
7	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/13/2025 15:28	POSITIVE	1.0382 0.0167
8	UMES	HUBBARD	-	-	CALIBRATE	METAL	INTACT	SILVER	2/14/2025 8:30	POSITIVE	1.0232 0.0322
9	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/14/2025 8:31	POSITIVE	1.1266 0.0326
10	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/14/2025 8:31	POSITIVE	1.015 0.0297
11	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/14/2025 8:31	POSITIVE	1.0549 0.0182
12	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/14/2025 8:31	POSITIVE	1.1325 0.0176
13	UMES	HUBBARD	1ST FLOOR	113A	FLOOR	CONCRETE	INTACT	GREY	2/14/2025 8:56	NEGATIVE	0.0009 0.0007
14	UMES	HUBBARD	1ST FLOOR	115 KITCHEN	CEILING	CONCRETE	INTACT	YELLOW	2/14/2025 9:35	NEGATIVE	0.3896 0.011
15	UMES	HUBBARD	1ST FLOOR	117 MPR	WALL	WOOD	INTACT	OFF-WHITE	2/14/2025 9:57	NEGATIVE	0.2799 0.0123
16	UMES	HUBBARD	1ST FLOOR	121 STAGE	RAILING	METAL	INTACT	AQUA	2/14/2025 10:54	NEGATIVE	0.0005 0.0002
17	UMES	HUBBARD	1ST FLOOR	121 STAGE	COVE BASE	RUBBER	INTACT	FUSCHIA	2/14/2025 10:55	NEGATIVE	0.0479 0.0192
18	UMES	HUBBARD	1ST FLOOR	124	WALL	DRYWALL	INTACT	OFF-WHITE	2/14/2025 10:57	NEGATIVE	0.0003 0.0002
19	UMES	HUBBARD	1ST FLOOR	124	COLUMN	METAL	INTACT	OFF-WHITE	2/14/2025 10:59	NEGATIVE	0.0002 0.0002
20	UMES	HUBBARD	1ST FLOOR	121 STAGE	DOOR	METAL	INTACT	TAN	2/14/2025 11:01	NEGATIVE	-0.0003 0.0002
21	UMES	HUBBARD	1ST FLOOR	121 STAGE	DOOR FRAME	METAL	INTACT	TAN	2/14/2025 11:02	NEGATIVE	0.0002 0.0002
22	UMES	HUBBARD	1ST FLOOR	122 STAGE	FLOOR TILE	VINYL	INTACT	OFF-WHITE	2/14/2025 11:09	NEGATIVE	0.0001 0.0002
23	UMES	HUBBARD	1ST FLOOR	130A	WALL	PLASTIC	INTACT	OFF-WHITE	2/14/2025 13:36	NEGATIVE	-0.0003 0.0002
24	UMES	HUBBARD	1ST FLOOR	130	COUNTER	FORMICA	INTACT	GREEN	2/14/2025 13:38	NEGATIVE	0.0007 0.0002
25	UMES	HUBBARD	1ST FLOOR	130	WALL	DRYWALL	INTACT	OFF-WHITE	2/14/2025 13:38	NEGATIVE	0.0006 0.0002
26	UMES	HUBBARD	1ST FLOOR	130	REGISTER	METAL	INTACT	TAN	2/14/2025 13:39	NEGATIVE	-0.0004 0.0004
27	UMES	HUBBARD	1ST FLOOR	127	TRUSS	METAL	INTACT	RED	2/14/2025 13:54	NEGATIVE	-0.0001 0.0006
28	UMES	HUBBARD	1ST FLOOR	130A	TOILET	CERAMIC	INTACT	WHITE	2/14/2025 13:56	NEGATIVE	0.0492 0.0067
29	UMES	HUBBARD	1ST FLOOR	130A	SINK	CERAMIC	INTACT	WHITE	2/14/2025 13:56	NEGATIVE	0.0035 0.0017
30	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/14/2025 15:42	POSITIVE	1.055 0.0172
31	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/14/2025 15:42	NEGATIVE	0.9999 0.0162
32	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/14/2025 15:42	NEGATIVE	0.9768 0.0163
33	UMES	HUBBARD	-	-	CALIBRATE	METAL	INTACT	SILVER	2/18/2025 9:27	NEGATIVE	0.9404 0.0305
34	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/18/2025 9:27	POSITIVE	1.0237 0.0324
35	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/18/2025 9:28	NEGATIVE	0.9689 0.0293
36	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/18/2025 9:28	NEGATIVE	0.9777 0.0178
37	UMES	HUBBARD	1ST FLOOR	141 LIBRARY	DOOR FRAME	METAL	INTACT	TAN	2/18/2025 9:29	NEGATIVE	-0.0003 0.0003
38	UMES	HUBBARD	1ST FLOOR	141 LIBRARY	COVE BASE	RUBBER	INTACT	TAN	2/18/2025 9:30	NEGATIVE	0.0107 0.0034
39	UMES	HUBBARD	1ST FLOOR	141 LIBRARY	WALL	DRYWALL	INTACT	OFF-WHITE	2/18/2025 9:32	NEGATIVE	0.0006 0.0002
40	UMES	HUBBARD	1ST FLOOR	141 LIBRARY	WINDOW FRAME	WOOD	INTACT	WHITE	2/18/2025 9:33	NEGATIVE	0.0001 0.0002
41	UMES	HUBBARD	1ST FLOOR	141 LIBRARY	DOOR	METAL	INTACT	OFF-WHITE	2/18/2025 10:09	NEGATIVE	0.0008 0.0007
42	UMES	HUBBARD	1ST FLOOR	141A	TOILET	CERAMIC	INTACT	WHITE	2/18/2025 10:11	NEGATIVE	0.0012 0.0006
43	UMES	HUBBARD	1ST FLOOR	141A	SINK	CERAMIC	INTACT	WHITE	2/18/2025 10:11	NEGATIVE	0.001 0.0006
44	UMES	HUBBARD	1ST FLOOR	137	TOILET	CERAMIC	INTACT	WHITE	2/18/2025 11:33	NEGATIVE	0.003 0.0017

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

LEAD ANALYZER TEST RESULTS

NO.	SITE	INSPECTOR	FLOOR	ROOM	COMPONENT	SUBSTRATE	CONDITION	COLOR	TIME	RESULTS	
										LBP	mg/cm ² +/- ERROR
45	UMES	HUBBARD	1ST FLOOR	137	SINK	CERAMIC	INTACT	WHITE	2/18/2025 11:34	NEGATIVE	0.0013
46	UMES	HUBBARD	1ST FLOOR	137	WALL	CERAMIC	INTACT	WHITE	2/18/2025 11:34	NEGATIVE	0.0015
47	UMES	HUBBARD	1ST FLOOR	137	FLOOR TILE	CERAMIC	INTACT	OFF-WHITE	2/18/2025 11:35	NEGATIVE	0.0046
48	UMES	HUBBARD	1ST FLOOR	137	DOOR FRAME	METAL	INTACT	TAN	2/18/2025 11:36	NEGATIVE	0.0007
49	UMES	HUBBARD	1ST FLOOR	BASEMENT	WALL	CONCRETE	INTACT	PEA GREEN	2/18/2025 13:57	NEGATIVE	0.0036
50	UMES	HUBBARD	1ST FLOOR	BASEMENT	ELECTRIC EQUIP	METAL	INTACT	GREY	2/18/2025 13:58	NEGATIVE	-0.0037
51	UMES	HUBBARD	1ST FLOOR	BASEMENT	DOOR FRAME	METAL	INTACT	TAN	2/18/2025 14:00	NEGATIVE	-0.0008
52	UMES	HUBBARD	1ST FLOOR	BASEMENT	DOOR	METAL	INTACT	TAN	2/18/2025 14:00	NEGATIVE	-0.0015
53	UMES	HUBBARD	1ST FLOOR	BASEMENT	WALL	CONCRETE	INTACT	YELLOW	2/18/2025 14:02	NEGATIVE	0.287
54	UMES	HUBBARD	1ST FLOOR	BASEMENT	DOOR	METAL	INTACT	RED	2/18/2025 14:04	NEGATIVE	0.0988
55	UMES	HUBBARD	1ST FLOOR	BASEMENT	DOOR FRAME	METAL	INTACT	RED	2/18/2025 14:05	NEGATIVE	0.5019
56	UMES	HUBBARD	1ST FLOOR	BASEMENT	FLOOR	CONCRETE	INTACT	RED	2/18/2025 14:06	NEGATIVE	0.0474
57	UMES	HUBBARD	1ST FLOOR	184 GYM	FLOOR	RUBBER	INTACT	GREY	2/18/2025 14:17	NEGATIVE	0
58	UMES	HUBBARD	1ST FLOOR	184 GYM	DOOR	METAL	INTACT	TAN	2/18/2025 14:18	NEGATIVE	-0.0001
59	UMES	HUBBARD	1ST FLOOR	184 GYM	DOOR FRAME	METAL	INTACT	TAN	2/18/2025 14:18	NEGATIVE	-0.0002
60	UMES	HUBBARD	1ST FLOOR	189	TOILET	CERAMIC	INTACT	WHITE	2/18/2025 14:21	NEGATIVE	0.0073
61	UMES	HUBBARD	1ST FLOOR	189	SINK	CERAMIC	INTACT	WHITE	2/18/2025 14:22	NEGATIVE	0.0002
62	UMES	HUBBARD	1ST FLOOR	188	WINDOW SILL	FORMICA	INTACT	MULTI	2/18/2025 14:23	NEGATIVE	0.0002
63	UMES	HUBBARD	1ST FLOOR	188	WINDOW FRAME	METAL	INTACT	DARK BROWN	2/18/2025 14:24	NEGATIVE	0.0004
64	UMES	HUBBARD	1ST FLOOR	188	REGISTER	METAL	INTACT	TAN	2/18/2025 14:26	NEGATIVE	-0.0001
65	UMES	HUBBARD	1ST FLOOR	186	RAILING	METAL	INTACT	TAN	2/18/2025 14:28	NEGATIVE	-0.0007
66	UMES	HUBBARD	1ST FLOOR	184 GYM	WALL	FRP	INTACT	OFF-WHITE	2/18/2025 14:29	NEGATIVE	0.0001
67	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/18/2025 16:02	NEGATIVE	0.9735
68	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/18/2025 16:03	NEGATIVE	0.9826
69	UMES	HUBBARD	-	-	CALIBRATE	WOOD	INTACT	RED	2/18/2025 16:03	NEGATIVE	0.9817

Table Heading Descriptions:

LBP: Results are shown as positive (POS $\geq$ 1.0 mg/cm²) or negative (NEG < 1.0 mg/cm²). Positive results are shown in bold print.

mg/cm2: This is the testing results produced by the SciAps X-550 Pb instrument in milligrams of lead per square centimeter (mg/cm²). The EPA defines lead based paint as paint containing lead at 1.0 mg/cm² or greater. A negative number is a result of an internal computation made by the instrument and should be interpreted as zero. Even though paint may be termed negative (less than 1.0 mg/cm²) by EPA definition, disturbance of the paint may still be regulated by OSHA under 29 CFR 1926.62. Where lead is present at any level, appropriate engineering controls, work practices and personal protective equipment should be used until a negative exposure assessment can be determined. <LOD indicates that the lead present was less than the limits of detection of the instrument (very little or no lead present).

VOID: This indicates that the test was intentionally terminated by the operator due to operator error (e.g. - operator moved analyzer while testing).

Substrate: Where ceramic is shown as a substrate, lead content is typically from the glazing on the tile unless the tile is painted.

HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

NITON XLP-300A, Serial No. 81530

No.	SITE	INSPECTOR	ROOM	COMPONENT	SUBSTRATE	CONDITION	COLOR	Duration	Time	Depth Index	LBP	Results mg/cm ² +/- ERROR
1	URSA MAJOR ES	OTTOSEN	-	SHUTTER CAL	-	-	-	130.87	4/29/2014 13:19	-	-	2.37 0
2	URSA MAJOR ES	OTTOSEN	-	CALIBRATION CK	-	-	RED	20.23	4/29/2014 13:21	1.09	Positive	1.1 0.1
3	URSA MAJOR ES	OTTOSEN	-	CALIBRATION CK	-	-	RED	20.19	4/29/2014 13:23	2.53	Positive	1.1 0.1
4	URSA MAJOR ES	OTTOSEN	-	CALIBRATION CK	-	-	RED	20.47	4/29/2014 13:24	1.04	Positive	1 0.1
5	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	HAND RAIL	METAL	POOR	GREEN	5.34	4/29/2014 13:25	1.22	Negative	0.02 0.02
6	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	COLUMN	METAL	POOR	GREEN	5.34	4/29/2014 13:26	1.04	Negative	0.02 0.02
7	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	RISER	METAL	POOR	GREEN	5.32	4/29/2014 13:26	1.4	Negative	0.04 0.02
8	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	RISER	METAL	POOR	GREEN	5.36	4/29/2014 13:27	1.52	Negative	0.03 0.02
9	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	COLUMN	METAL	POOR	GREEN	5.35	4/29/2014 13:27	1.62	Negative	0.02 0.02
10	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	BEAM	METAL	POOR	GREEN	5.34	4/29/2014 13:28	1.47	Negative	0.02 0.02
11	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	WALL	CONCRETE	FAIR	BEIGE	5.34	4/29/2014 13:28	1.31	Negative	0.01 0.02
12	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	COLUMN	CONCRETE	FAIR	BEIGE	5.33	4/29/2014 13:29	1.47	Negative	0.01 0.02
13	URSA MAJOR ES	OTTOSEN	VOID	VOID	VOID	VOID	VOID	VOID	4/29/2014 13:29	VOID	VOID	0 0.06
14	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	ROOF	METAL	POOR	GREEN	5.59	4/29/2014 13:30	3.37	Negative	0.02 0.04
15	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	WALL	CEMENT BOARD	INTACT	BEIGE	5.13	4/29/2014 13:31	1	Negative	0 0.02
16	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	DOOR FRAME	WOOD	INTACT	PINK	5.32	4/29/2014 13:32	1	Negative	0 0.02
17	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	DOOR	METAL	INTACT	PINK	5.34	4/29/2014 13:32	1	Negative	0 0.02
18	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	FLOOR	METAL	POOR	GREEN	4.88	4/29/2014 13:33	1.36	Negative	0.02 0.02
19	URSA MAJOR ES	OTTOSEN	NORTH EXTERIOR	COLUMN	CONCRETE	FAIR	BEIGE	5.37	4/29/2014 13:34	1.02	Negative	0 0.02
20	URSA MAJOR ES	OTTOSEN	-	CALIBRATION CK	-	-	RED	20.27	4/29/2014 13:35	1.05	Positive	1 0.1
21	URSA MAJOR ES	OTTOSEN	-	CALIBRATION CK	-	-	RED	20.23	4/29/2014 13:36	2.55	Positive	1.1 0.1
22	URSA MAJOR ES	OTTOSEN	-	CALIBRATION CK	-	-	RED	20.23	4/29/2014 13:38	1.07	Positive	1.1 0.1

Table Heading Descriptions:

Duration: This is the nominal time in seconds that each sample was analyzed.

Depth Index: Indicates the relative depth of the lead. A Depth Index (DI) of less than 1.5 indicates lead very near the surface layer of paint. A DI between 1.5 and 4.0 indicates moderately covered lead. A DI greater than 4.0 indicates the lead paint is deeply buried beneath multiple layers of paint.

LBP: Results are shown as positive (POS ≥ 1.0 mg/cm2), inconclusive (INC) or negative (NEG <1.0 mg/cm2). The results are based on the combined results of the K and L shell readings. L shell and K shell readings are not provided, but are available. Positive results are shown in bold print.

mg/cm2: This is the testing results produced by the NITON XLP-300A instrument in milligrams of lead per square centimeter (mg/cm2). The EPA defines lead based paint as paint containing lead at 1.0 mg/cm2 or greater. A negative number is a result of an internal computation made by the instrument and should be interpreted as zero. Even though paint may be termed negative (less than 1.0 mg/cm2) by EPA definition, disturbance of the paint may still be regulated by OSHA under 29 CFR 1926.62. Where lead is present at any level, appropriate engineering controls, work practices and personal protective equipment should be used until a negative exposure assessment can be determined. <LOD indicates that the lead present was less than the limits of detection of the instrument (very little or no lead present).

VOID: This indicates that the test was intentionally terminated by the operator due to operator error (e.g., operator moved analyzer while testing).

Substrate: Where ceramic is shown as a substrate, lead content is typically from the glazing on the tile unless the tile is painted.

No.	SITE	INSPECTOR	ROOM	COMPONENT	SUBSTRATE	CONDITION	COLOR	DURATION	TIME	DEPTH INDEX	LPB	Results mg/cm ²	+/-Error
1	URSA MAJOR	SCHWAN	-	SHUTTER CAL	-	-	-	158.93	4/11/2012 16:30	-	-	2.94	0
2	URSA MAJOR	SCHWAN	-	CALIBRATION CK	-	-	RED	20.92	4/11/2012 16:33	1.06	Positive	1.00	0.10
3	URSA MAJOR	SCHWAN	-	CALIBRATION CK	-	-	RED	18.61	4/11/2012 16:34	1.08	Positive	1.10	0.10
4	URSA MAJOR	SCHWAN	-	VOID	VOID	VOID	VOID	VOID	4/11/2012 16:35	VOID	VOID	VOID	VOID
5	URSA MAJOR	SCHWAN	-	CALIBRATION CK	-	-	RED	9.38	4/11/2012 16:36	2.83	Positive	1.20	0.20
6	URSA MAJOR	SCHWAN	154	CLOSET DOOR	WOOD	INTACT	BEIGE	3.35	4/11/2012 16:38	1.47	Negative	0.01	0.02
7	URSA MAJOR	SCHWAN	154	CLOSET TRIM	WOOD	INTACT	BEIGE	15.25	4/11/2012 16:39	2.25	Negative	0.01	0.02
8	URSA MAJOR	SCHWAN	154	WALL	DRYWALL	INTACT	BEIGE	15.21	4/11/2012 16:40	1.00	Negative	0.00	0.02
9	URSA MAJOR	SCHWAN	154	WALL	DRYWALL	INTACT	BEIGE	5.44	4/11/2012 16:41	1.00	Negative	0.00	0.02
10	URSA MAJOR	SCHWAN	154	WALL	CONCRETE	INTACT	BEIGE	13.16	4/11/2012 16:44	3.98	Negative	0.01	0.02
11	URSA MAJOR	SCHWAN	154	WALL	DRYWALL	INTACT	BEIGE	10.46	4/11/2012 16:46	7.35	Negative	0.02	0.04
12	URSA MAJOR	SCHWAN	154	DOOR	WOOD	INTACT	BEIGE	5.21	4/11/2012 16:48	2.59	Negative	0.01	0.03
13	URSA MAJOR	SCHWAN	154	DOOR TRIM	WOOD	INTACT	BEIGE	6.69	4/11/2012 16:49	3.09	Negative	0.02	0.03
14	URSA MAJOR	SCHWAN	157	CABINET	WOOD	INTACT	BEIGE	3.76	4/11/2012 16:52	3.19	Negative	0.24	0.12
15	URSA MAJOR	SCHWAN	157	CLOSET DOOR	WOOD	INTACT	BEIGE	8.13	4/11/2012 16:54	4.63	Negative	0.02	0.04
16	URSA MAJOR	SCHWAN	157	CLOSET TRIM	WOOD	INTACT	BEIGE	5.64	4/11/2012 16:55	3.13	Negative	0.01	0.03
17	URSA MAJOR	SCHWAN	157	WALL	CONCRETE	INTACT	BEIGE	7.14	4/11/2012 16:57	4.14	Negative	0.01	0.03
18	URSA MAJOR	SCHWAN	157	DOOR TRIM	DRYWALL	INTACT	BEIGE	3.76	4/11/2012 16:59	3.87	Negative	0.02	0.05
19	URSA MAJOR	SCHWAN	157	DOOR	DRYWALL	INTACT	BEIGE	7.5	4/11/2012 17:00	2.75	Negative	0.02	0.03
20	URSA MAJOR	SCHWAN	157	WALL	WOOD	INTACT	BEIGE	10.22	4/11/2012 17:05	4.50	Negative	0.07	0.26
21	URSA MAJOR	SCHWAN	-	CALIBRATION CK	-	-	-	16.78	4/11/2012 17:10	1.08	Positive	1.10	0.10
22	URSA MAJOR	SCHWAN	-	CALIBRATION CK	-	-	-	23.45	4/11/2012 17:11	1.02	Positive	1.00	0.10
23	URSA MAJOR	SCHWAN	-	CALIBRATION CK	-	-	-	24.68	4/11/2012 17:12	2.60	Positive	1.10	0.10

Table Heading Descriptions:

- Duration: This is the nominal time in seconds that each sample was analyzed.
- Depth Index: Indicates the relative depth of the lead. A Depth Index (DI) of less than 1.5 indicates lead very near the surface layer of paint. A DI between 1.5 and 4.0 indicates moderately covered lead. A DI greater than 4.0 indicates the lead paint is deeply buried beneath multiple layers of paint.
- LBP: Results are shown as positive (POS $\geq$ 1.0 mg/cm²), inconclusive (INC) or negative (NEG $<$ 1.0 mg/cm²). The results are based on the combined results of the K and L shell readings. L shell and K shell readings are not provided, but are available. Positive results are shown in bold print.
- mg/cm²: This is the testing results produced by the NITON XLI-300 instrument in milligrams of lead per square centimeter (mg/cm²). The EPA defines lead based paint as paint containing lead at 1.0 mg/cm² or greater. A negative number is a result of an internal computation made by the instrument and should be interpreted as zero. Even though paint may be termed negative (less than 1.0 mg/cm²) by EPA definition, disturbance of the paint may still be regulated by OSHA under 29 CFR 1926.62. Where lead is present at any level, appropriate engineering controls, work practices and personal protective equipment should be used until a negative exposure assessment can be determined. <LOD indicates that the lead present was less than the limits of detection of the instrument (very little or no lead present).
- VOID: This indicates that the test was intentionally terminated by the operator due to operator error (e.g. - operator moved analyzer while testing).
- Substrate: Where ceramic is shown as a substrate, lead content is typically from the glazing on the tile unless the tile is painted.

Lead Paint Screening
URSA MAJOR ELEMENTARY SCHOOL, WINDOW REPLACEMENT

No	Site	Inspect	Floor	Room	Structure	Substrate	Feature	Condition	Color	Ssec	Date/Time	Depth Index	Results LBP	mg/cm2	"+"
1	Ursa Major	French		Shutter Cal 1						60.5	11/5/2004 11:59	0	...	NA	
2	Ursa Major	French		Calibrate						40.5	11/5/2004 12:00	1	NEG	0.9	0.05
3	Ursa Major	French		Calibrate						39.6	11/5/2004 12:02	1	POS	1.47	0.14
4	Ursa Major	French		Calibrate						20	11/5/2004 12:03	1.2	POS	3.38	0.38
5	Ursa Major	French		Calibrate						42.1	11/5/2004 12:04	2.4	POS	1.49	0.23
6	Ursa Major	French		Calibrate						55.1	11/5/2004 12:06	2.4	POS	0.95	0.15
7	Ursa Major	French	1	MPR	Window		Casing	Intact	Brown	22.5	11/5/2004 12:09	1.8	NEG	0.67	0.17
8	Ursa Major	French	1	MPR	Wall	Marlite		Intact	White	21.2	11/5/2004 12:10	2.1	NEG	0.24	0.13
9	Ursa Major	French	1	Main entry	Window	Wood	Stool	Intact	Brown	61.3	11/5/2004 12:13	4.8	POS	1.54	0.54
10	Ursa Major	French	1	Main entry	Window	Metal	Sash Ext	Intact	Brown	23.6	11/5/2004 12:16	1	POS	2.49	0.95
11	Ursa Major	French	1	Exterior	Wall	Concrete		Intact	Beige	28.7	11/5/2004 12:18	1.6	NEG	0.01	0.1
12	Ursa Major	French	1	Exterior	Window	Concrete	Sash Ext	Intact	Brown	13.6	11/5/2004 12:19	2.3	POS	1.58	0.43
13	Ursa Major	French	1	Room 151	Window	Wood	Stool	Intact	Beige	27.5	11/5/2004 12:22	6.7	POS	1.43	0.61
14	Ursa Major	French	1	Room 160	Window	Wood	Stool	Intact	Beige	24.7	11/5/2004 12:24	2.1	NEG	0.72	0.19
15	Ursa Major	French	1	Room 157	Window	Wood	Stops	Intact	Brown	41.9	11/5/2004 12:29	2.5	NEG	0.89	0.18
16	Ursa Major	French	1	Room 157	Wall	Plywood		Intact	White	23.1	11/5/2004 12:31	1	NEG	0	0.01
17	Ursa Major	French	1	Room 157	Wall	Cig tile	Fbg	Intact	White	23.9	11/5/2004 12:33	1	NEG	0	0.06
18	Ursa Major	French	1	Room 157	Wall	Plywood		Intact	Beige	18.7	11/5/2004 12:35	1	NEG	0	0.01
19	Ursa Major	French	1	Room 165	Window	Wood	Sash	Intact	Brown	43.8	11/5/2004 12:37	3	POS	1.65	0.61
20	Ursa Major	French	1	Room 165	Wall	Plywood		Intact	White	7.5	11/5/2004 12:39	1	NEG	0	0.01
21	Ursa Major	French	1	Bath 170	Wall	Ceramic	Tile	Intact	White	8.2	11/5/2004 12:41	1	POS	6.46	2.25
22	Ursa Major	French	1	Bath 170	Window	Wood	Sash	Intact	Brown	14.4	11/5/2004 12:42	1	NEG	0.03	0.03
23	Ursa Major	French	1	W entry	Window	Metal	Stops	Intact	Brown	7.9	11/5/2004 12:44	1	POS	4.75	1.79
24	Ursa Major	French	1	Room 175	Window	Wood	Casing	Intact	Brown	20.2	11/5/2004 12:46	2.1	POS	1.29	0.29
25	Ursa Major	French	1	Room 175	Wall	Plywood		Intact	White	16.4	11/5/2004 12:48	1.4	NEG	0.08	0.08
26	Ursa Major	French	1	Room 181	Wall	Drywall		Intact	White	16.7	11/5/2004 12:51	1	NEG	0	0.01
27	Ursa Major	French	1	Room 181	Window	Wood	Stool	Intact	Brown	21	11/5/2004 12:52	6.6	NEG	0.51	0.5
28	Ursa Major	French	1	Room 181	Window	Wood	Stool	Intact	Brown	45.4	11/5/2004 12:54	4.3	NEG	0.83	0.25
29	Ursa Major	French	1	Room 235	Window	Wood	Stool	Intact	Beige	20.5	11/5/2004 12:58	2.4	NEG	0.73	0.23
30	Ursa Major	French	1	Room 236	Window	Drywall	Stool	Intact	Green	35.2	11/5/2004 13:00	1	NEG	0.09	0.02
31	Ursa Major	French	1	Exterior	Wall	Concrete		Intact	White	12.5	11/5/2004 13:02	1	POS	3.28	1.68
32	Ursa Major	French	1	Exterior	Window	Concrete	Sash Ext	Intact	Brown	49.2	11/5/2004 13:04	3.3	POS	3.44	0.63
33	Ursa Major	French	1	Room 227	Window	Wood	Sash	Intact	Beige	20.6	11/5/2004 13:20	2.4	NEG	0.69	0.23
34	Ursa Major	French	1	Room 227	Wall	Marlite		Intact	White	27.6	11/5/2004 13:21	1	POS	2	0.8
35	Ursa Major	French	1	Room 227	Wall	Cig tile	Fbg	Intact	White	49.4	11/5/2004 13:23	4.3	NEG	0.01	0.06
36	Ursa Major	French	1	Bath 217	Wall	Ceramic	Tile	Intact	White	11.9	11/5/2004 13:28	1	POS	4.67	1.72
37	Ursa Major	French	1	Bath 217	Window	Wood	Sash	Intact	Brown	21.1	11/5/2004 13:29	2.1	NEG	0.06	0.11
38	Ursa Major	French	1	Room 212	Wall	Marlite		Intact	White	20.6	11/5/2004 13:31	1.4	NEG	0.08	0.07
39	Ursa Major	French	1	Room 212	Window	Wood	Casing	Intact	Beige	35.6	11/5/2004 13:33	2.3	POS	1.07	0.2
40	Ursa Major	French	1	Room 201	Window	Wood	Casing	Intact	Brown	33.4	11/5/2004 13:35	2.2	POS	1.06	0.2

Lead Paint Screening
URSA MAJOR ELEMENTARY SCHOOL, WINDOW REPLACEMENT

No	Site	Inspect	Floor	Room	Structure	Substrate	Feature	Condition	Color	Ssec	Date/Time	Depth Index	Results LBP	mg/cm2	" +/- "
41	Ursa Major	French	1	Exterior	Wall	Concrete		Intact	Beige	24.1	11/5/2004 13:37	1	NEG	0	0.02
42	Ursa Major	French	1	Exterior	Wall	Concrete	Stool	Intact	Beige	40.3	11/5/2004 13:40	1.2	NEG	0.01	0.06
43	Ursa Major	French		Calibrate						61.7	11/5/2004 13:43	2.1	NEG	0.85	0.13
44	Ursa Major	French		Calibrate						20.7	11/5/2004 13:45	1	NEG	0	0.01
45	Ursa Major	French		Calibrate						40.3	11/5/2004 13:46	2	NEG	0.22	0.09
46	Ursa Major	French		Calibrate						31.1	11/5/2004 13:47	2.5	POS	1.59	0.29
47	Ursa Major	French		Calibrate						20.4	11/5/2004 13:49	1	NEG	0.25	0.04
48	Ursa Major	French		Calibrate						42.7	11/5/2004 13:50	1	NEG	0.88	0.08
49	Ursa Major	French		Calibrate						23.8	11/5/2004 13:52	1.2	POS	3.6	0.37

Table Heading Descriptions:

Ssec: This is the nominal time in seconds that each sample was analyzed.

Depth Index: Indicates the relative depth of the lead. A Depth Index (DI) of less than 1.5 indicates lead very near the surface layer of paint. A DI between 1.5 and 4.0 indicates moderately covered lead. A DI greater than 4.0 indicates the lead paint is deeply buried beneath multiple layers of paint.

LBP: Results are shown as positive (POS $\geq$ 1.0 mg/cm²), inconclusive (INC) or negative (NEG < 1.0 mg/cm²). The results are based on the combined results of the K and L shell readings. L shell and K shell readings are not provided. Positive results are also in bold print.

mg/cm²: This is the testing results produced by the NITON XL-309 instrument in milligrams of lead per square centimeter (mg/cm²). The EPA defines lead based paint as paint containing lead at 1.0 mg/cm² or greater. A negative number is a result of an internal computation made by the instrument and should be interpreted as zero. Even though paint may be termed negative (less than 1.0 mg/cm) by EPA definition, disturbance of the paint may still be regulated by OSHA under 29 CFR 1926.62. Where lead is present at any level, appropriate engineering controls, work practices and personal protective equipment should be used until a negative exposure assessment can be determined.

VOID: This indicates that the test was intentionally terminated by the operator due to operator error (e.g. - operator moved analyzer while testing).

PAINT
Header: URSA MAJOR ELEM.
Site:
Date: 4/10/2001 17:52:55
Ranges (NEG<INC<POS): Device PCS

No	Room	Structure	Substrate	Feature	Condition	Color	Result	Error +/-
1	Shutter Cal	1					NA	
2	Calibrate						0	0.01
3	Calibrate						0.26	0.03
4	Calibrate						0.92	0.11
5	Calibrate						1.53	0.25
6	Calibrate						3.3	0.48
7	Room		Metal		Fair	Red	0.16	0.25
8	Room		Concrte		Fair	Green	0.02	0.01
9	Room	Floor	Concrte		Fair	Red	-0.31	1
10	Room	Ceiling	Drywall		Intact	White	0	0.02
11	Room	Ceiling	Drywall		Intact	White	-0.31	0.82
12	Room	Wall	Wood		Intact	White	0.02	0.07
13	Room	Cabinet	Wood	Door Out	Intact	White	0	0.02

HAZARDOUS MATERIALS ASSESSMENT

Division 2

Section 02 26 00



Environmental Health Sciences-Alaska, Inc.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
Tel # (907) 694-1383 Fax # (907) 694-1382

PAGE 1 OF 1

9406522

CHAIN OF CUSTODY RECORD / ASBESTOS SURVEY DATA SHEET

JOB NUMBER: 3603-01-01			BULK ANALYSIS REQUESTED: PLM TEST TOTAL LEAD			
PROJECT NAME: Ursa Major Addition			SAMPLE QUANTITY: 5			
CLIENT: KROCHINA ARCH			TURNAROUND REQUESTED: 3 DAYS			
PROJECT LOCATION: FT RICH, AK			SPECIAL INSTRUCTIONS:			
SAMPLE I.D.	MATERIAL DESCRIPTION	LOCATION OF MATERIAL (PHOTO/XREF.)	MATERIAL CONDITION	MATERIAL CATEGORY	FRIABLE	ASBESTOS CONTENT
11320 UJL-01	BROWN/GREEN PAINT	EXIT DOORS/DOOR FRAMES & TRIM ON DOORS TO KITCHEN/GYM & MULTIPURPOSE ROOM (INTERIOR)	OK SOME PEELING	T S M O	F NF	Y N 15,000 ppm
11321 UJL-02	NEW GREEN OLD GREEN YELLOW PAINT	EXTERIOR OF BUILDING & MAIN AREAS ON GROUND IN LARGE CHUNKS	POOR LOTS OF PEELING & CRACKING	T S M O	F NF	Y N 12,000 ppm
11322 UJL-03	MAROON GREEN PAINT	EXTERIOR TRIM PAINT ON DOORS WINDOWS & OVERHANGS	POOR CONDITION	T S M O	F NF	Y N 19,000 ppm
11323 UJL-04	LIGHT GREEN PAINT	WALL PAINT IN BATHROOMS TYP	OK	T S M O	F NF	Y N 4,600 ppm
11324 UJL-05	MED. GREEN PAINT	BATHROOM PARTITION AND W/SHelf PAINT	OK	T S M O	F NF	Y N 2,600 ppm
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N
				T S M O	F NF	Y N

Asbestos Content: Y = yes, N = no

Material Category: T = thermal system insulation, S = surfacing material, M = miscellaneous, O = other; Friability: F = friable, NF = nonfriable

I certify that the listed samples were collected at the stated facility.

SIGNATURE: Tony Slaton Barker
PRINTED NAME: TONY SLATON BARKER

COLLECTION DATE: 5-13-94

CERT. #: AHERA #:

SHIPPING METHOD: FED EX

SELECTED LAB: EMSL

COURIER
SIGNATURE:
PRINTED NAME:

FIRM:

DATE/TIME:

LABORATORY RECEIPT DATE/TIME:
SIGNATURE: [Signature] EMSL 5/17/94 11:00
DATE/TIME:

Relinquished By
SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:

Received By

SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:

I CERTIFY THAT THE LISTED SAMPLES HAVE BEEN ANALYZED BY ME
ACCORDING TO THE PROCEDURES SPECIFIED BY LAW.

ANALYST SIGNATURE:

PRINTED NAME:

FIRM:

DATE/TIME:



Attention: Toni Slatonbarker
Environmental Health Sciences-A1
10928 Eagle River Road
Suite 202
Eagle River, AK 99577

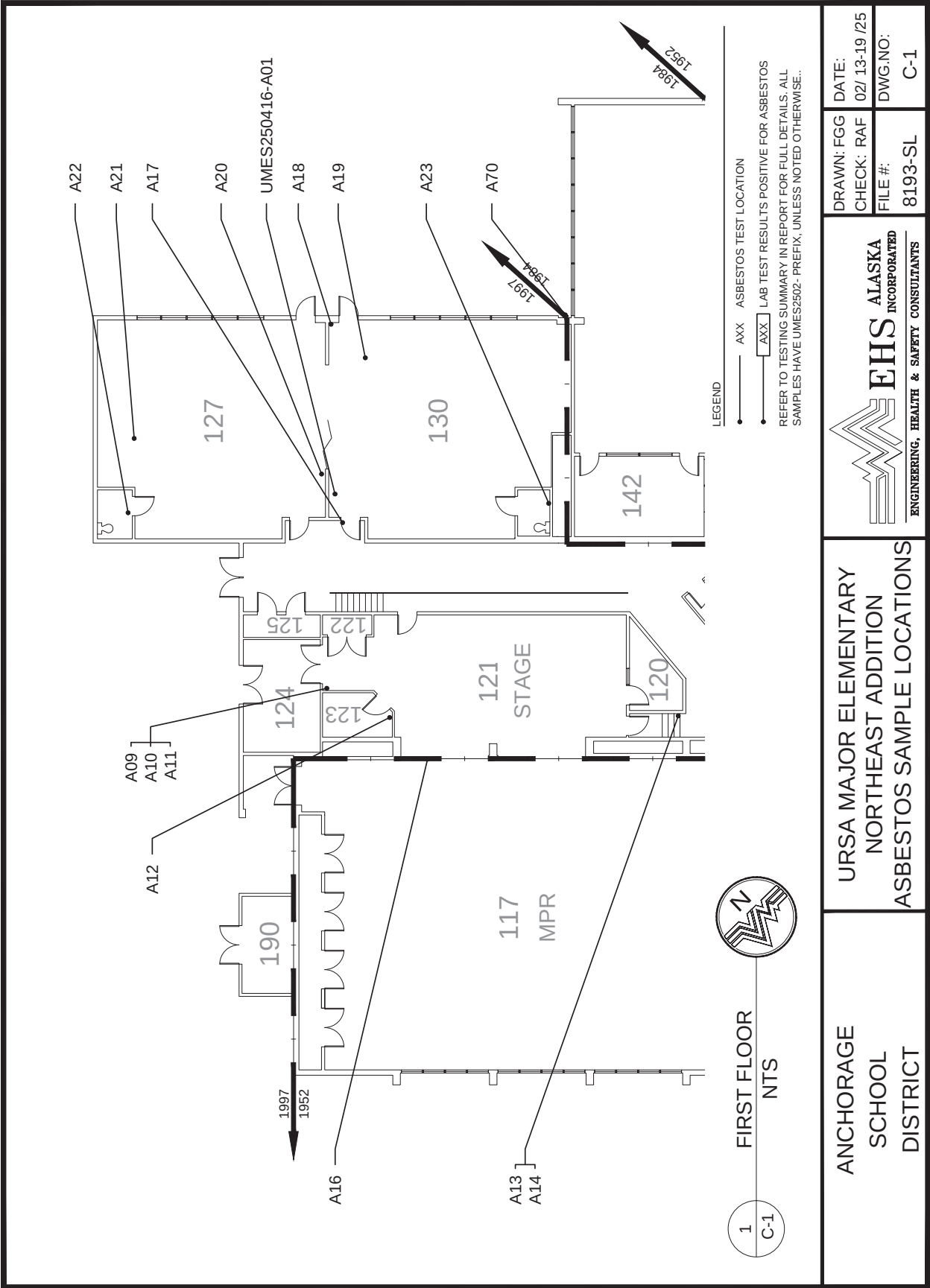
Project #: 9406562
Date Received: 05/17/94 11:00

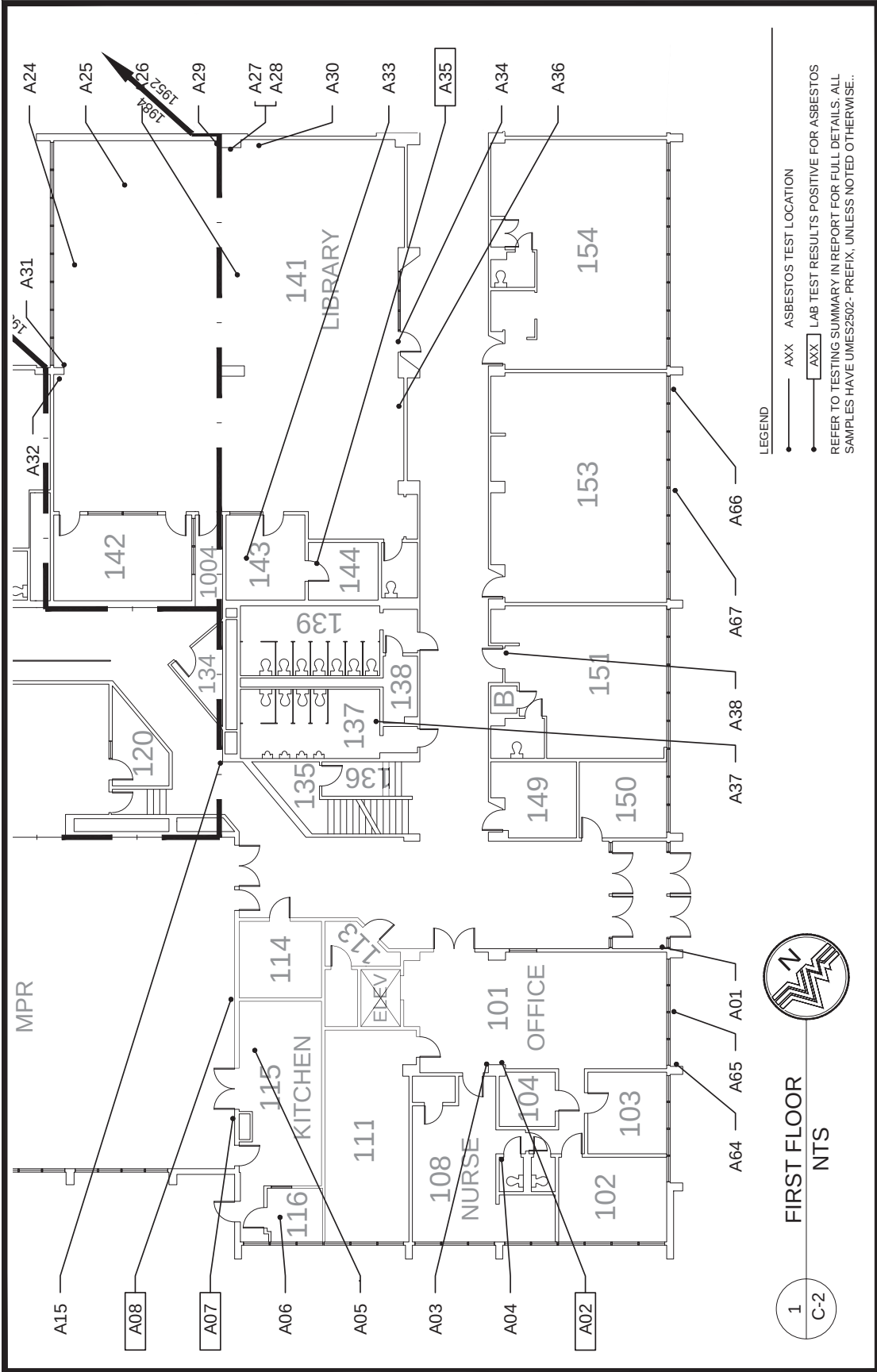
The following results are for Lead

Lab #	Conc.	Unit	Client Designation
94 0011320	1.5	%	UJL-01
94 0011321	0.12	%	UJL-02
94 0011322	1.9	%	UJL-03
94 0011323	<0.06	%	UJL-04
94 0011324	0.26	%	UJL-05

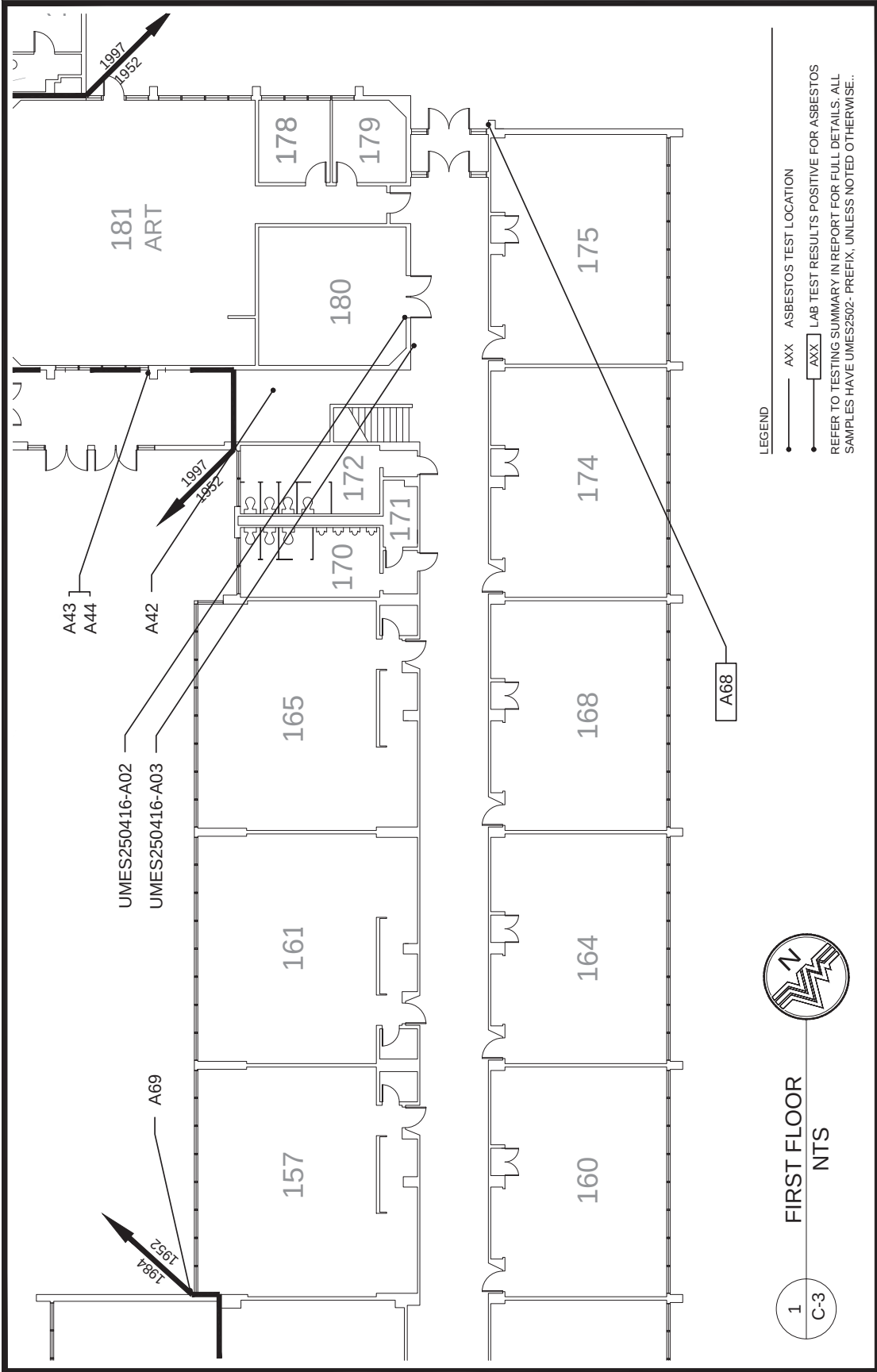
APPENDIX G

Drawings of Sample Locations

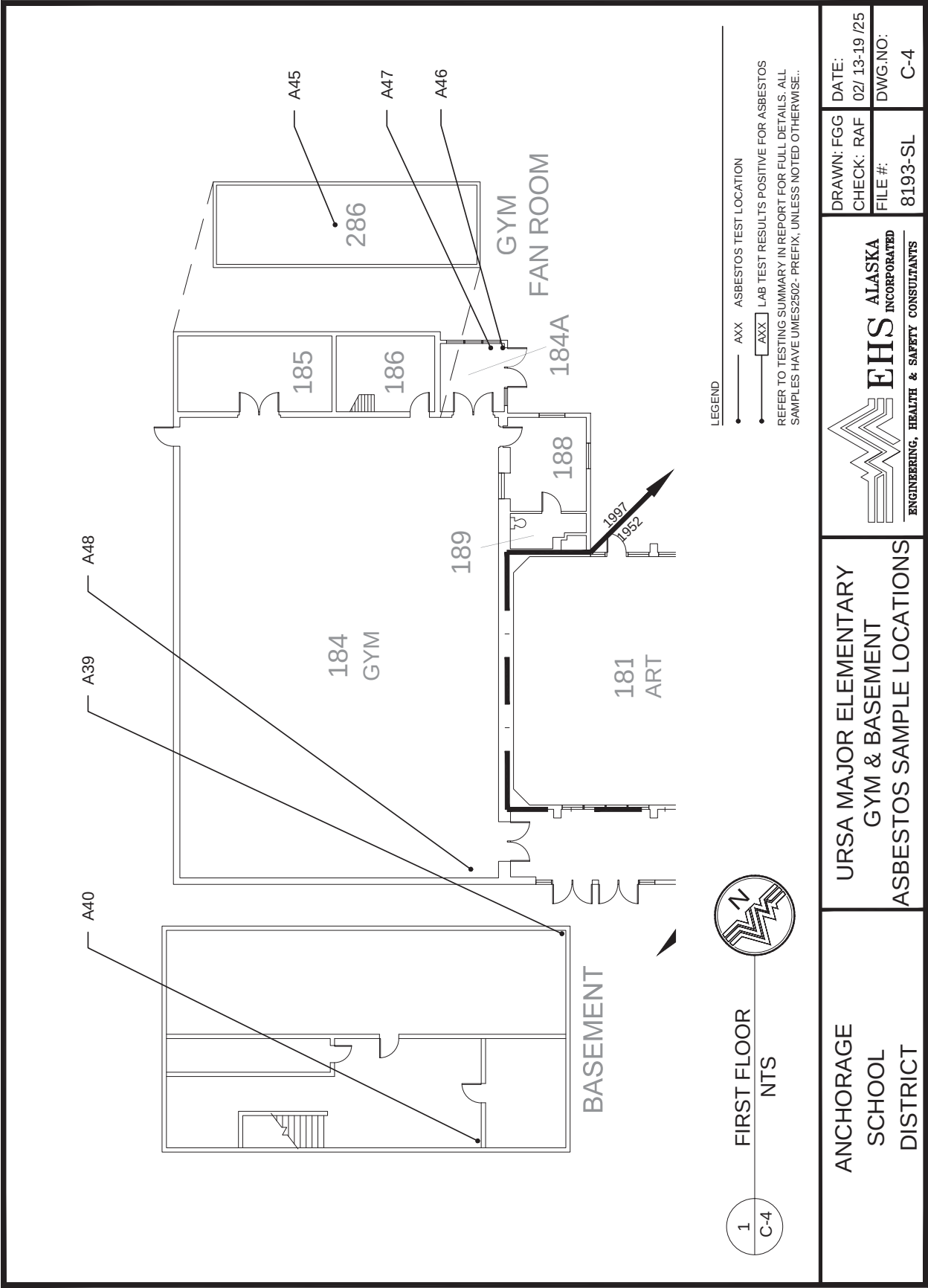


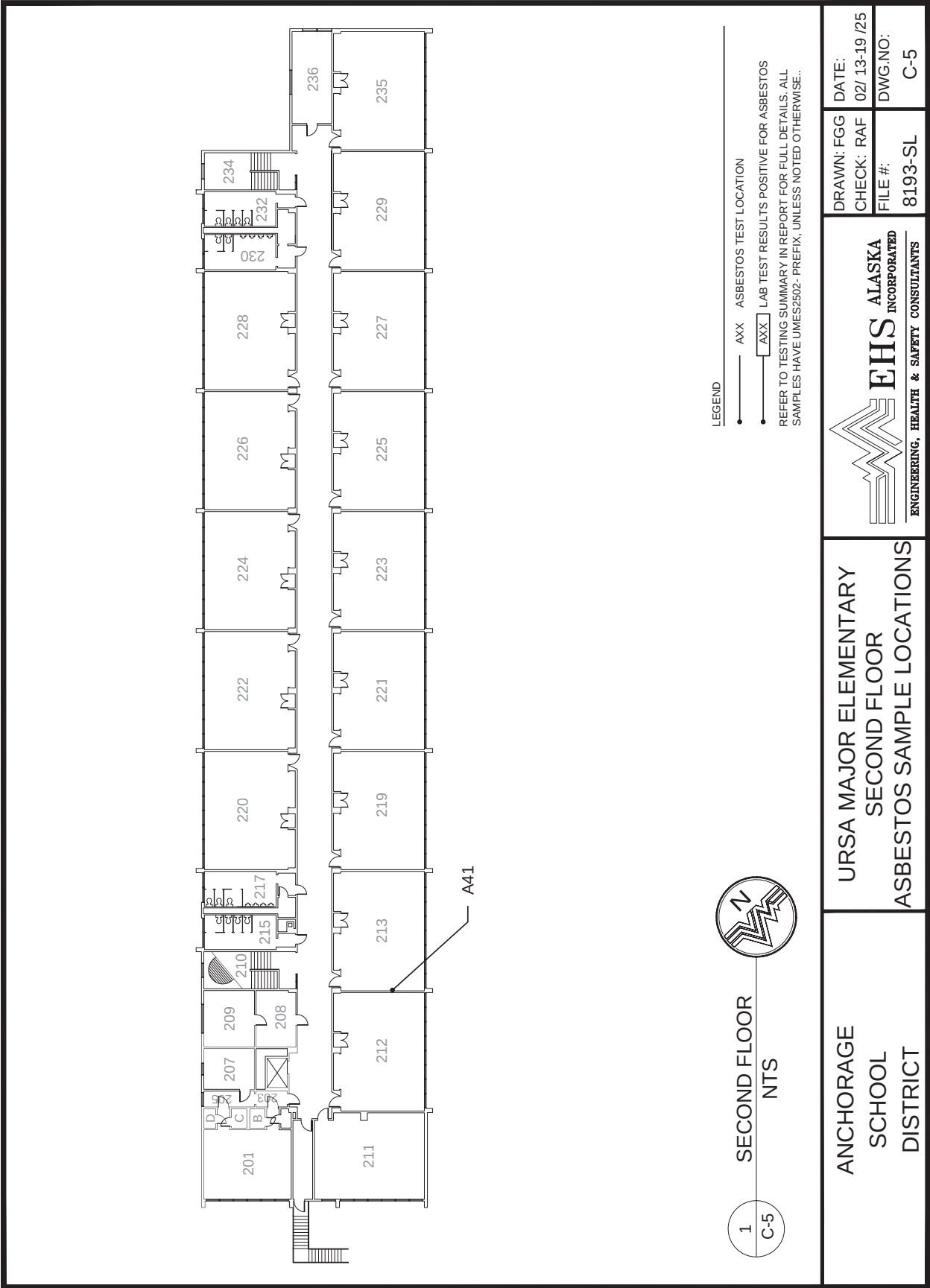


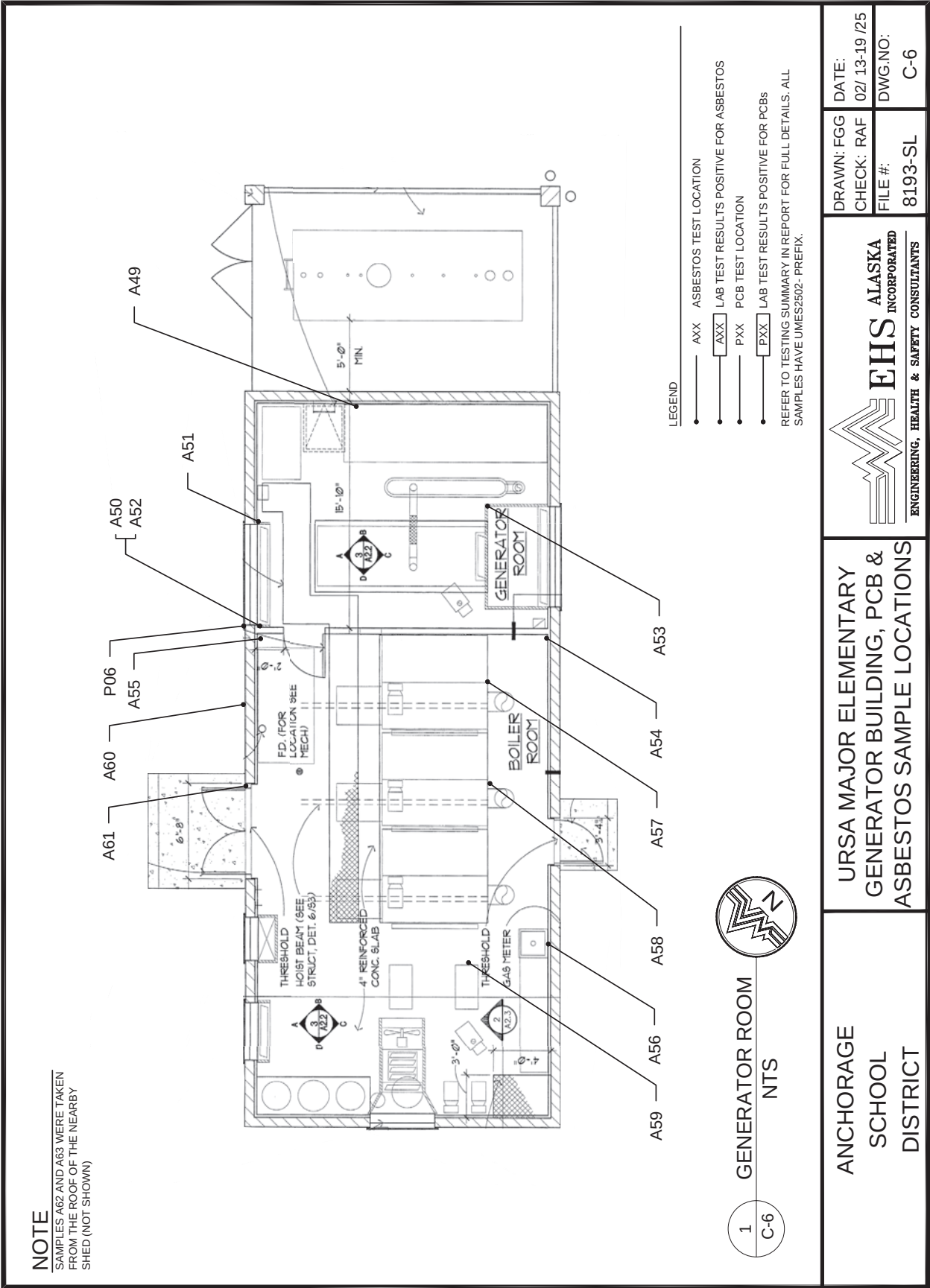
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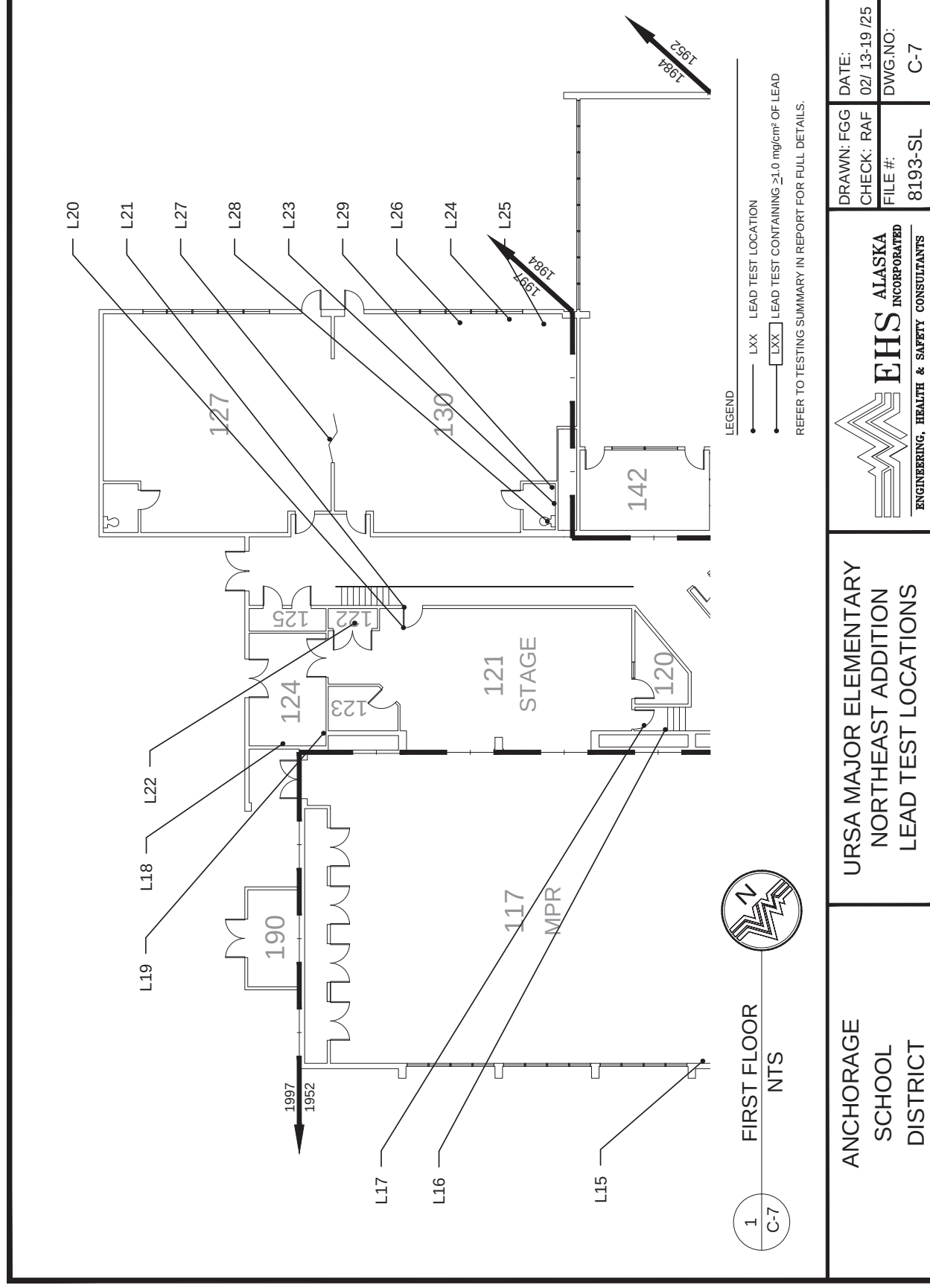
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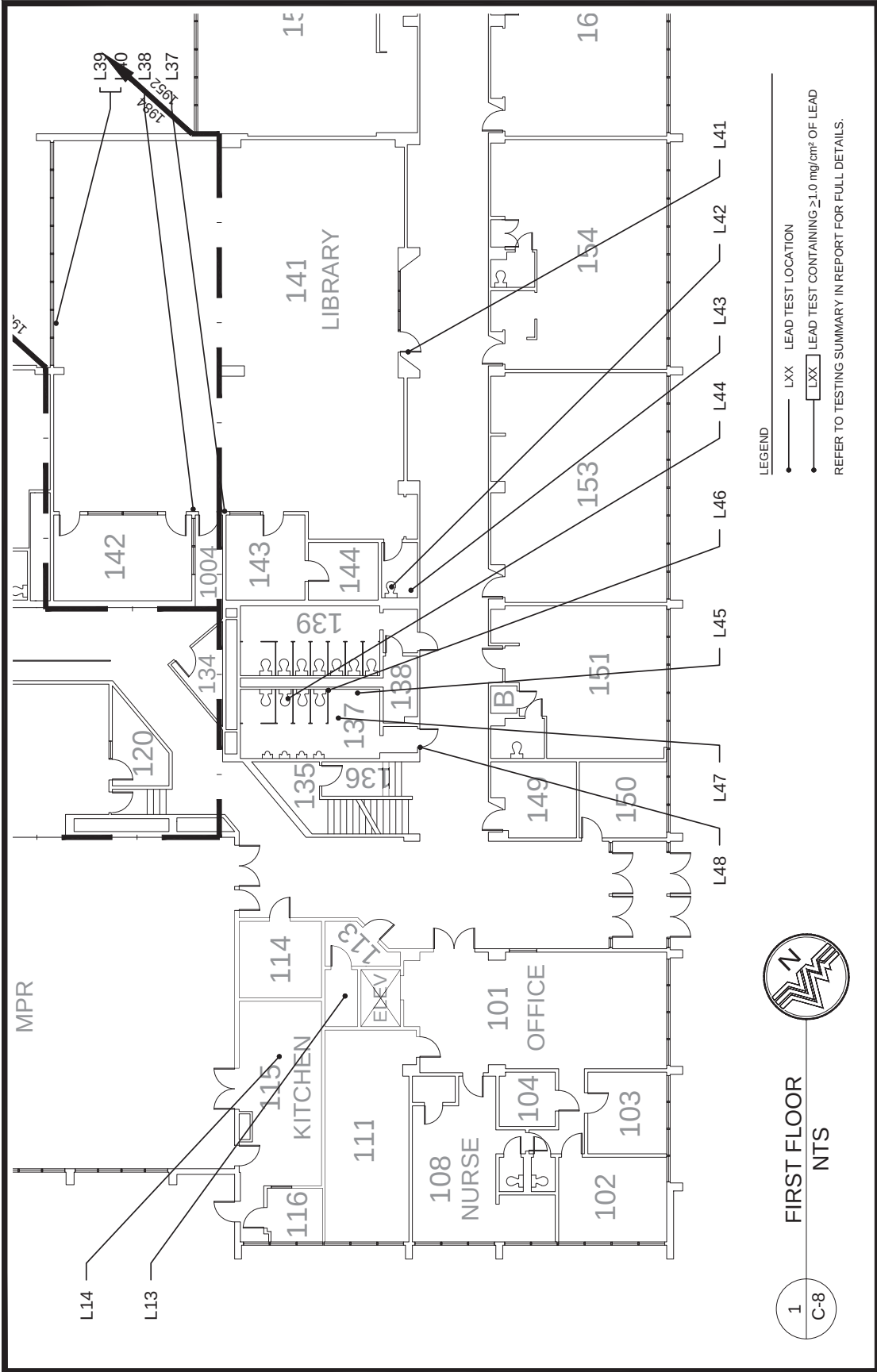




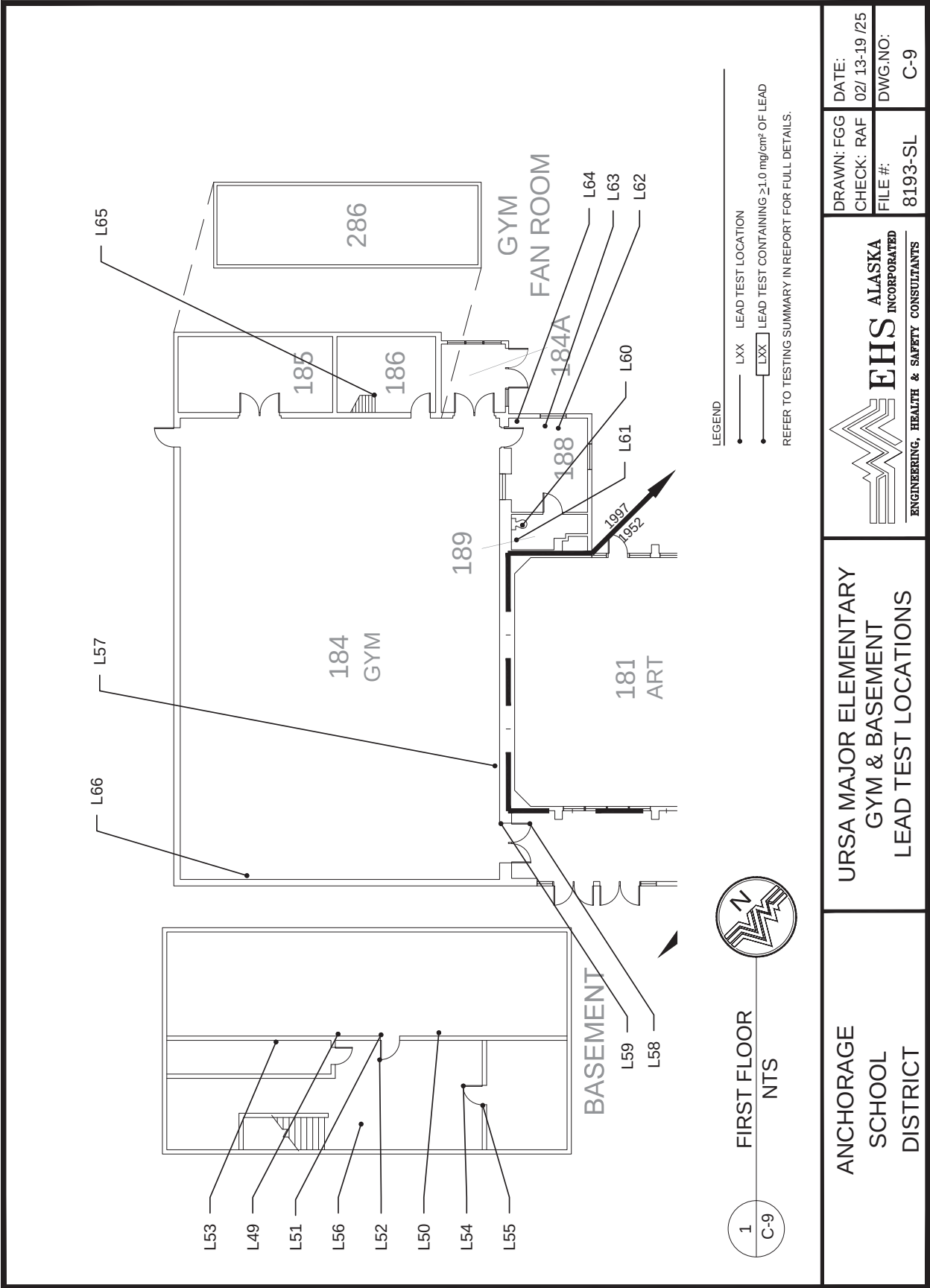


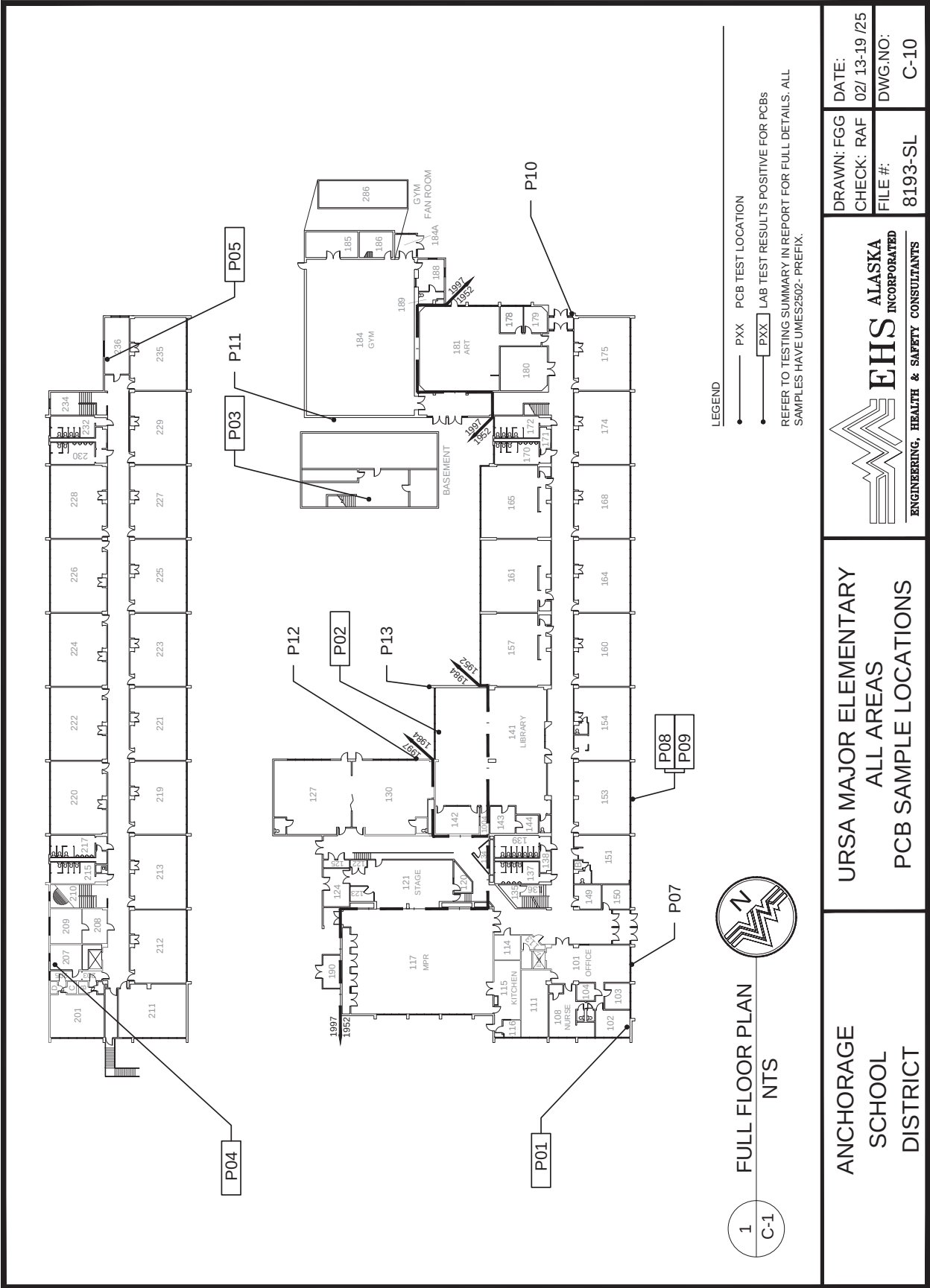
HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

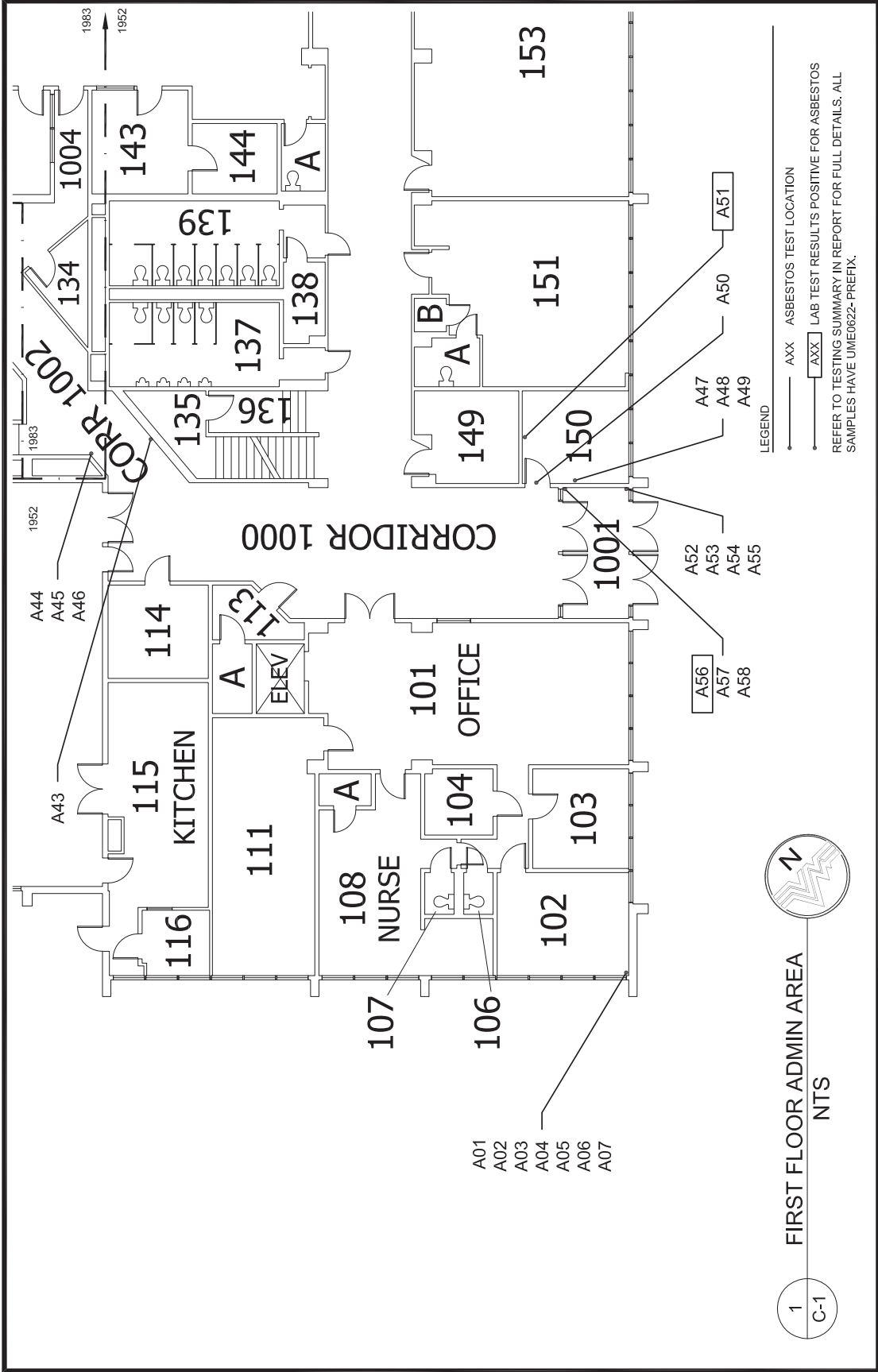




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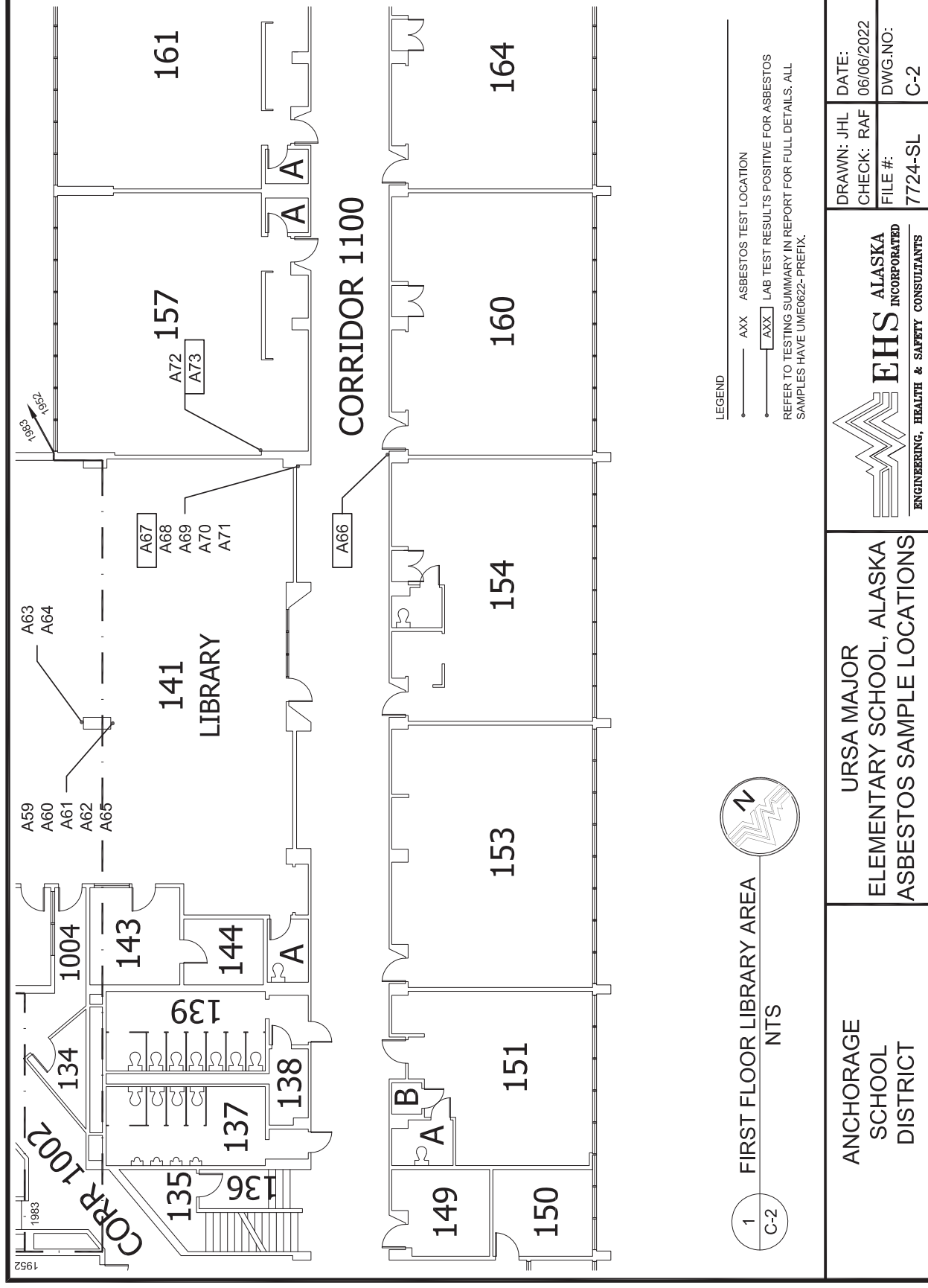


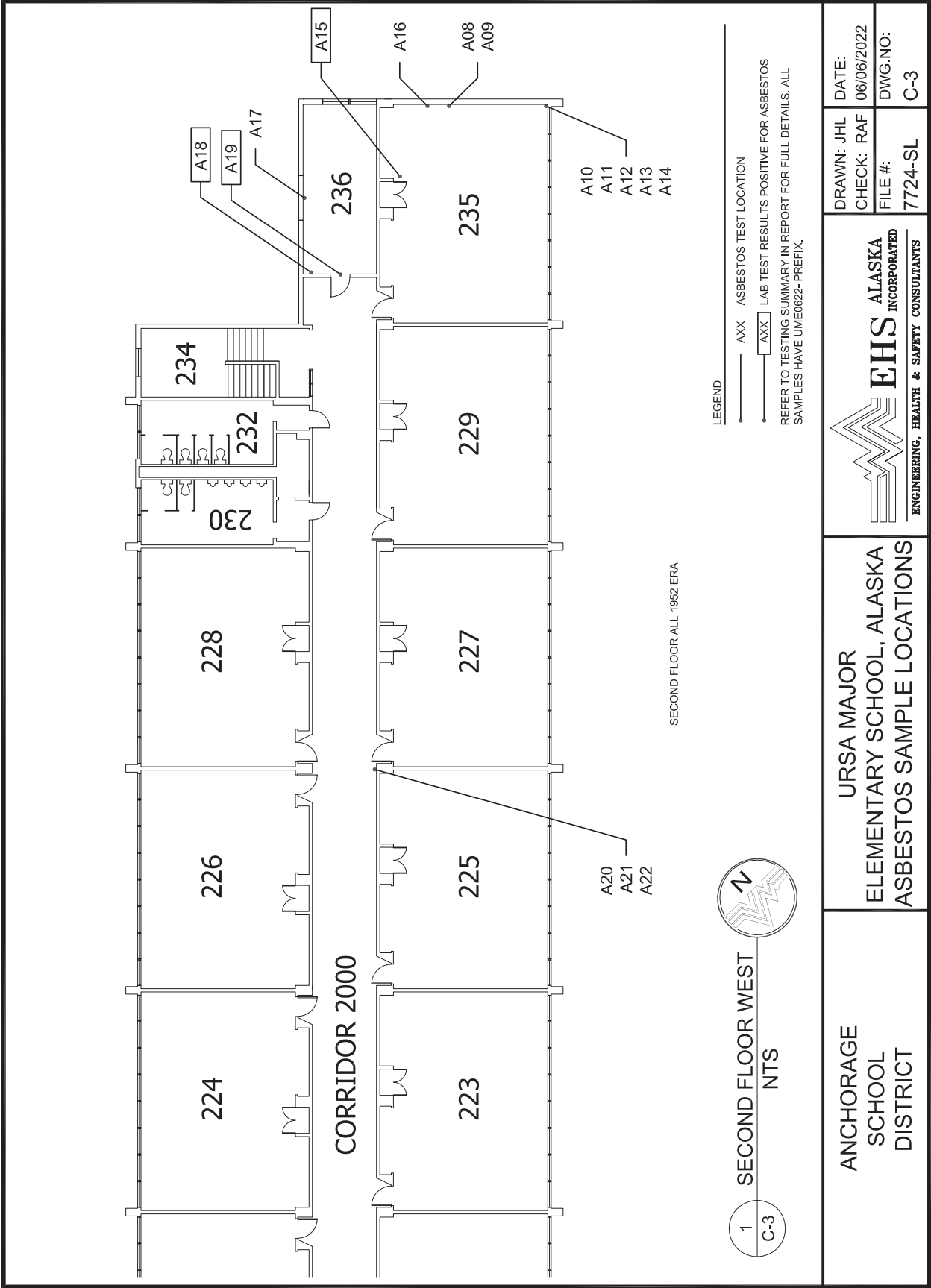




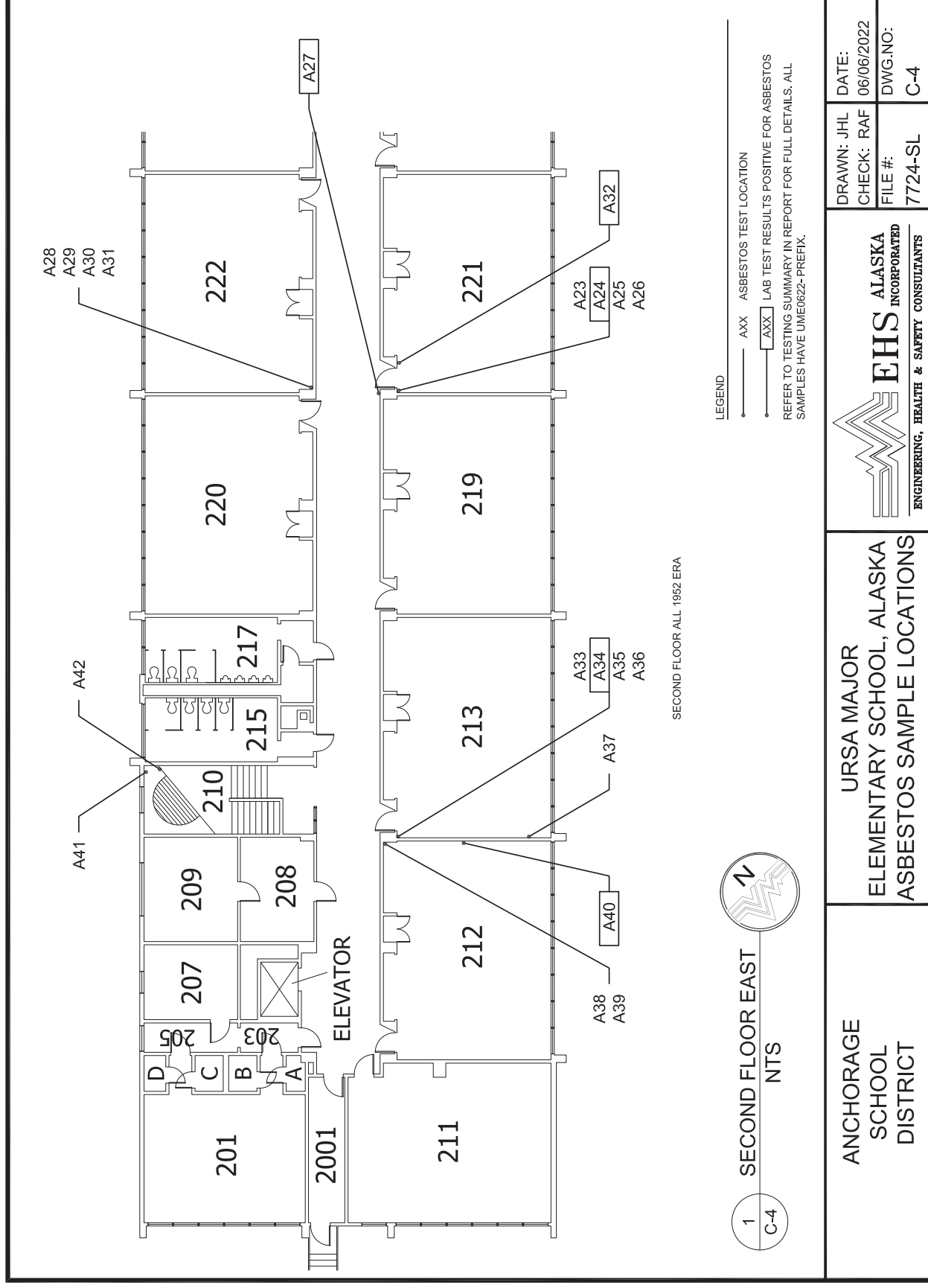
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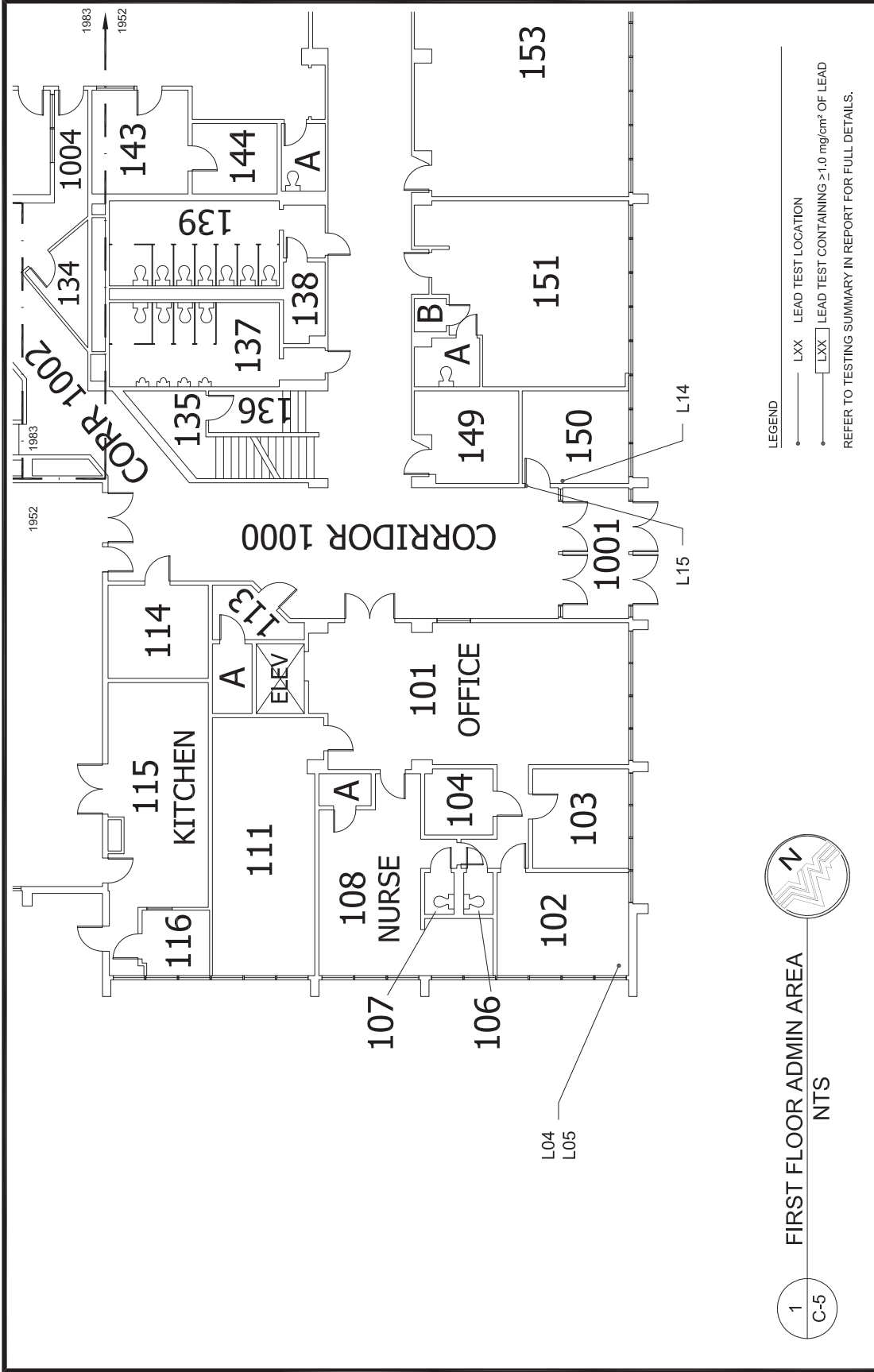
HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00

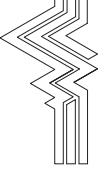


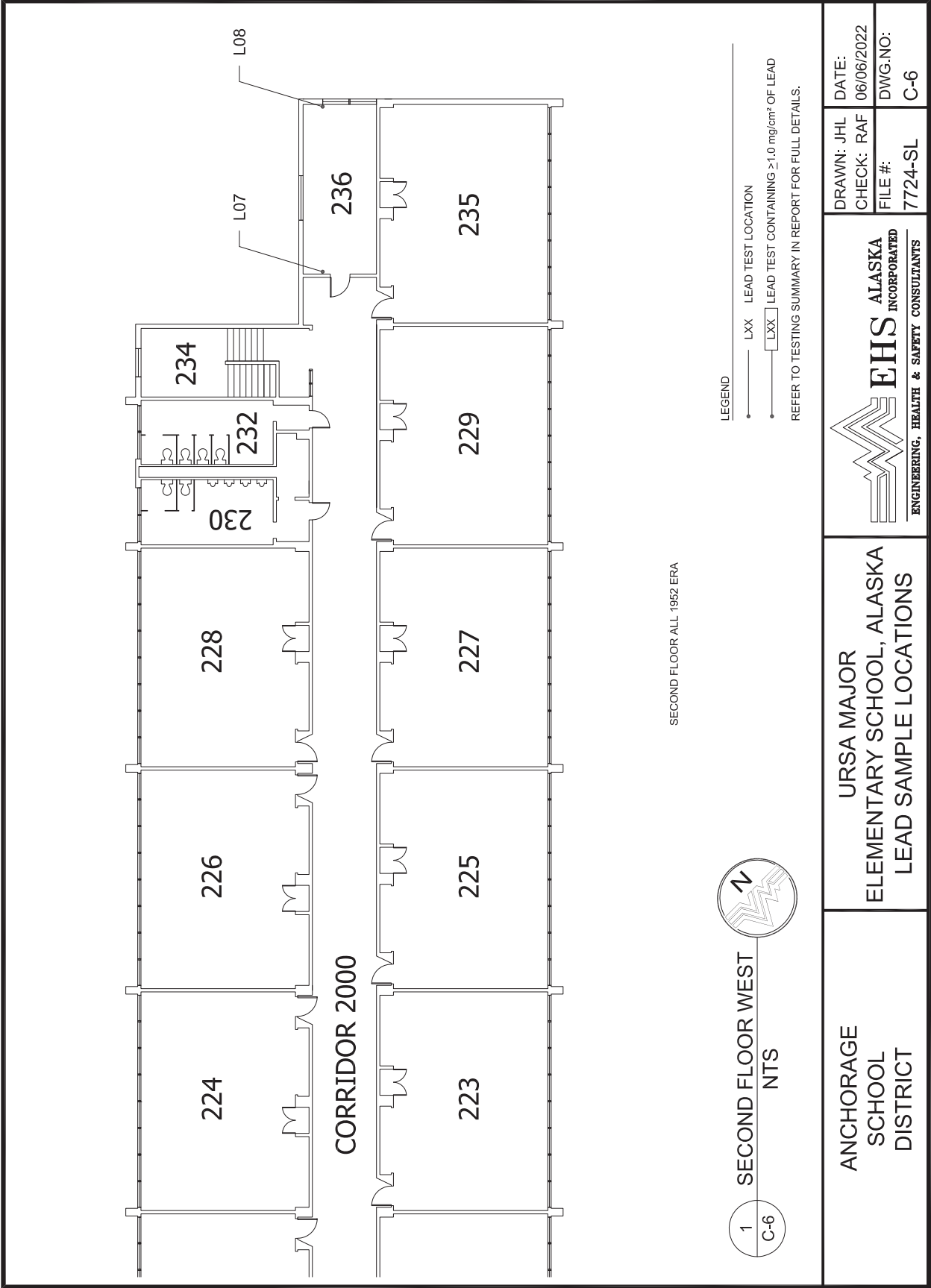


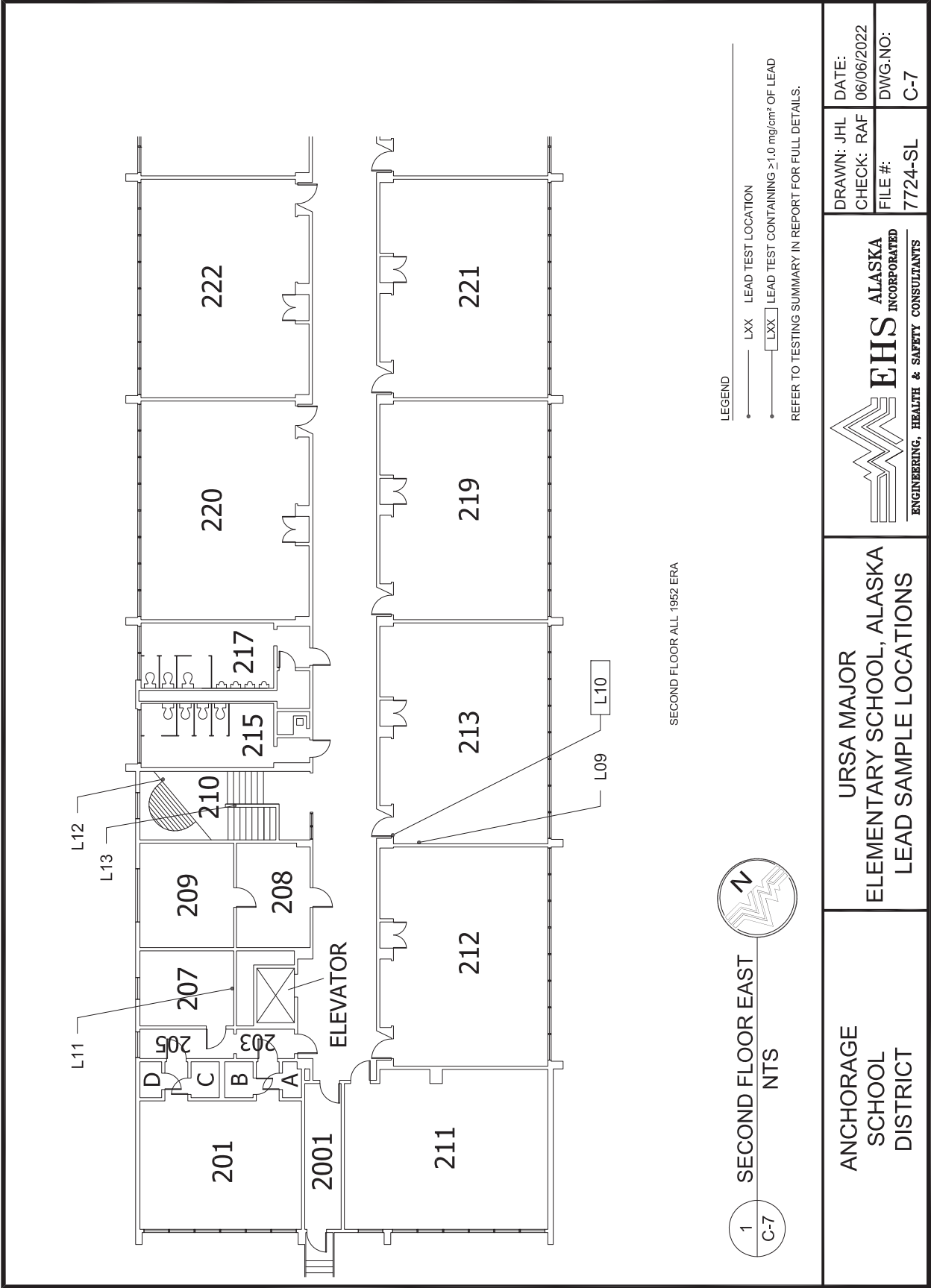
HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00



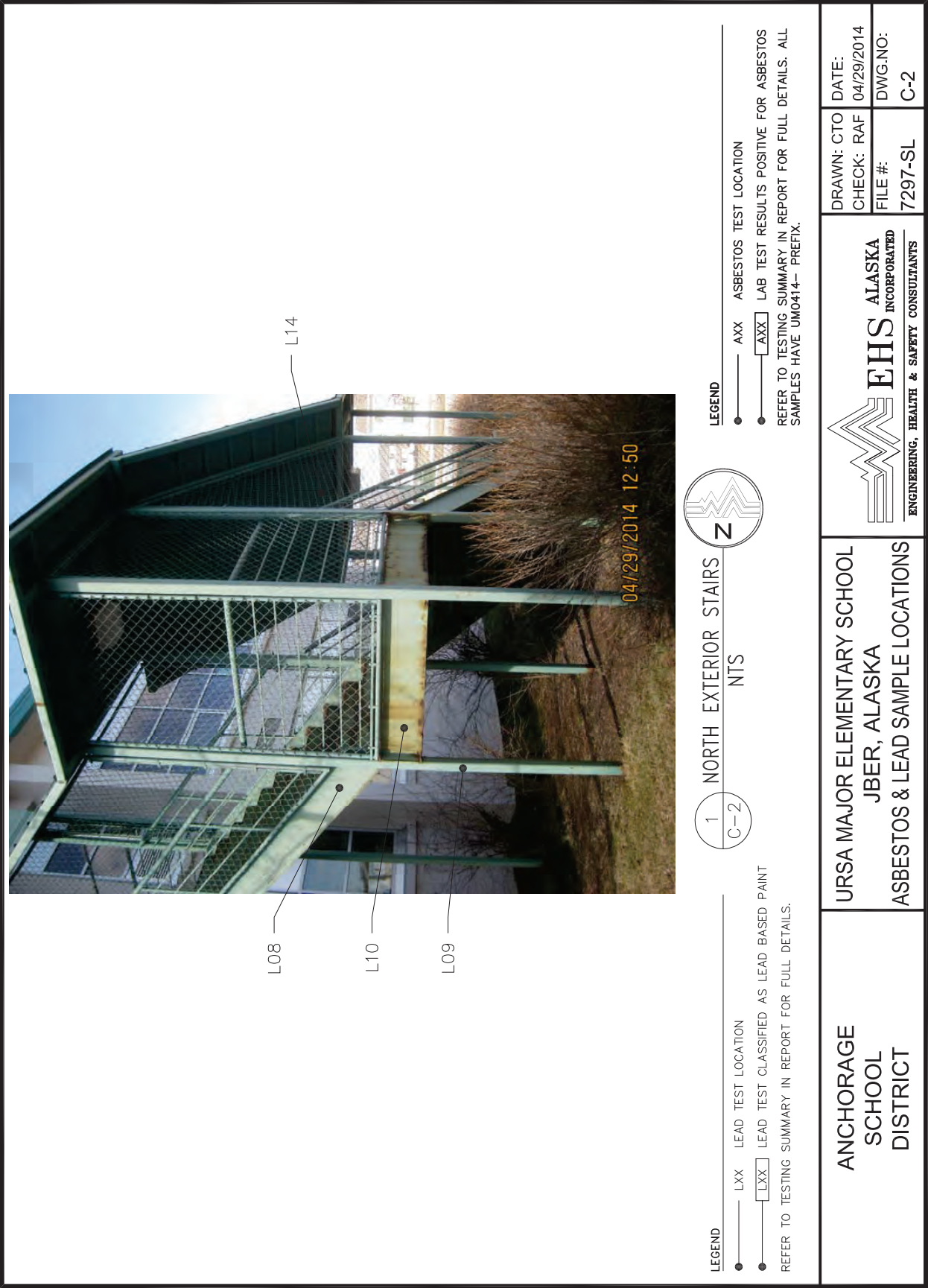


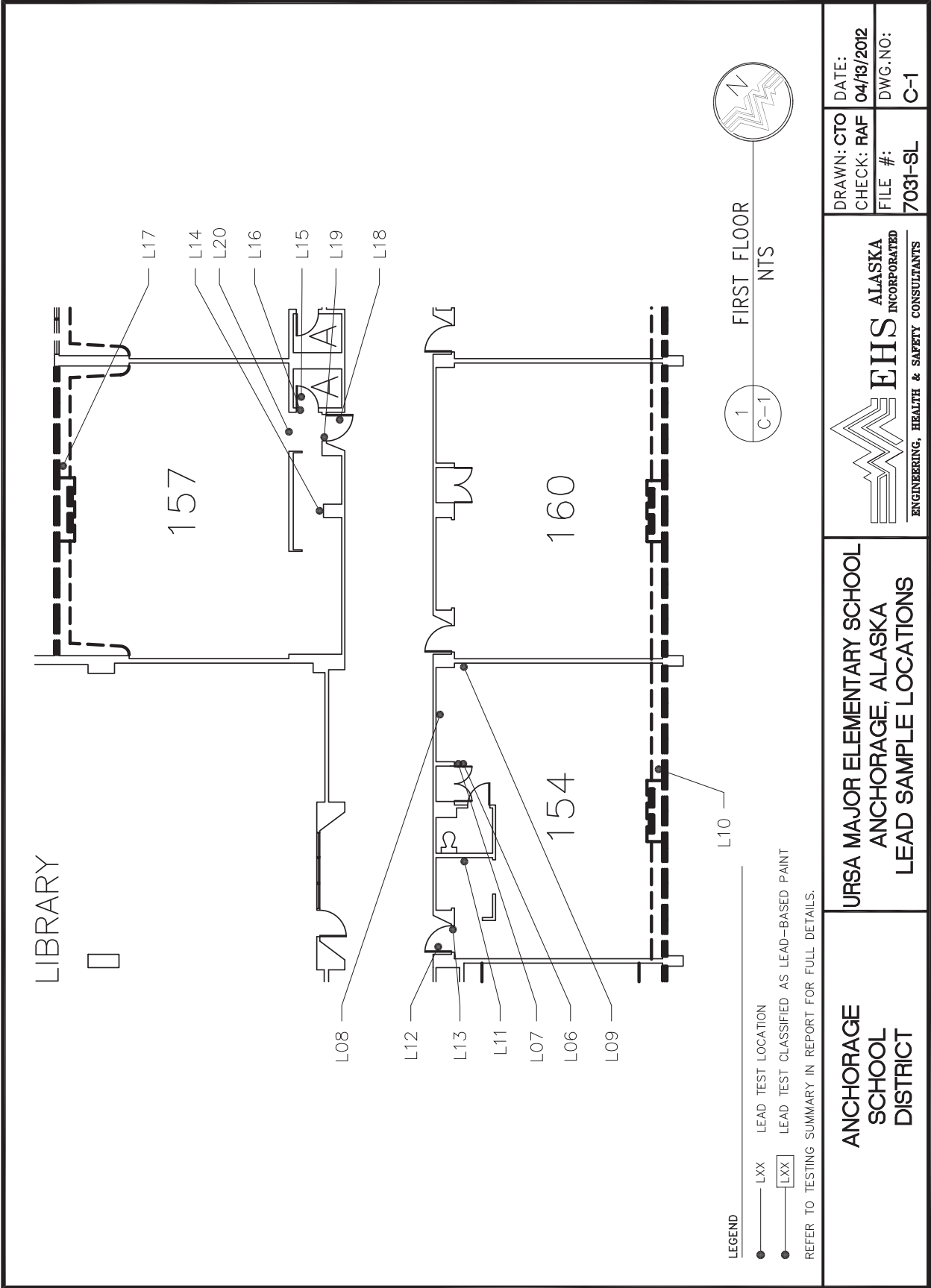
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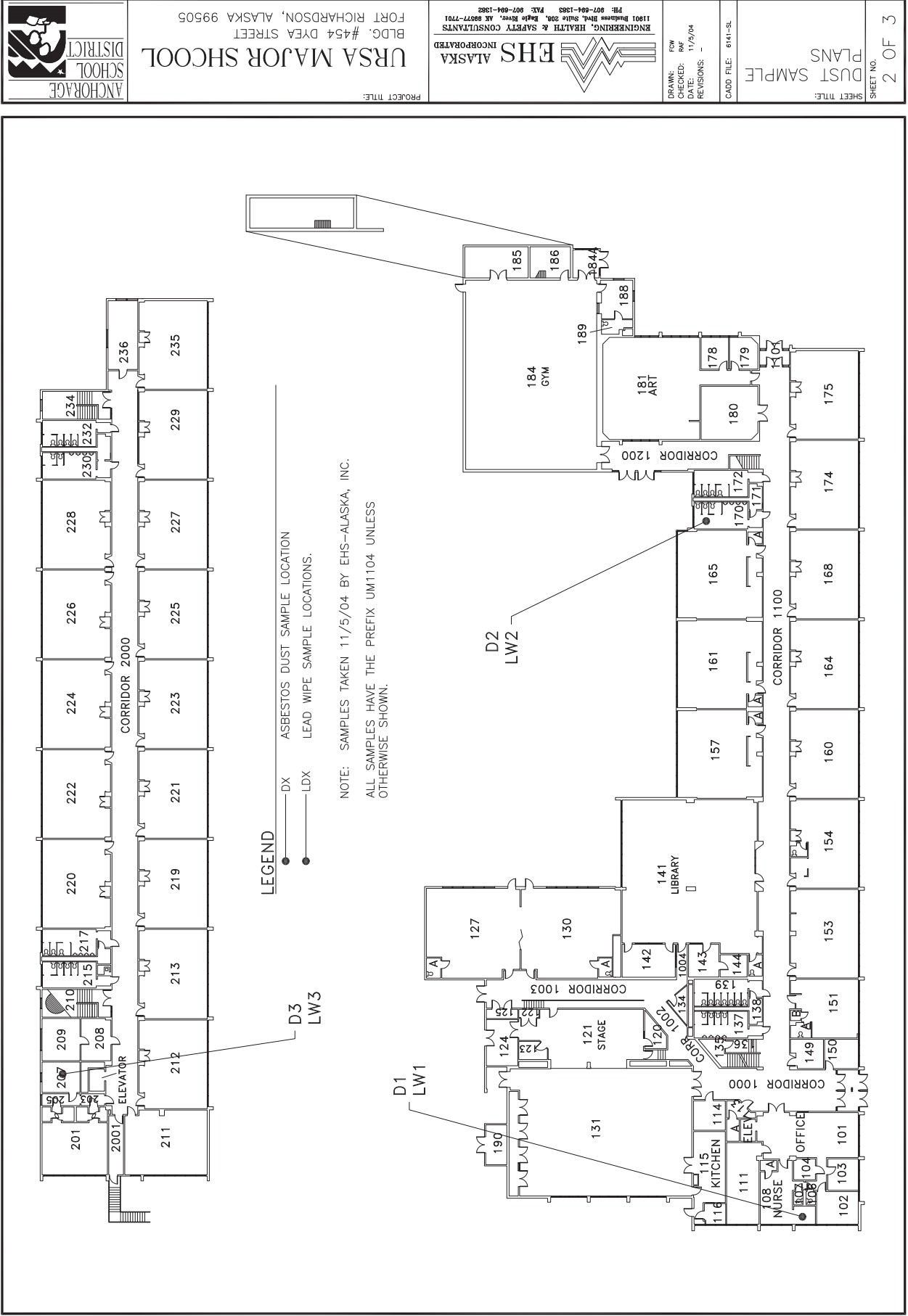




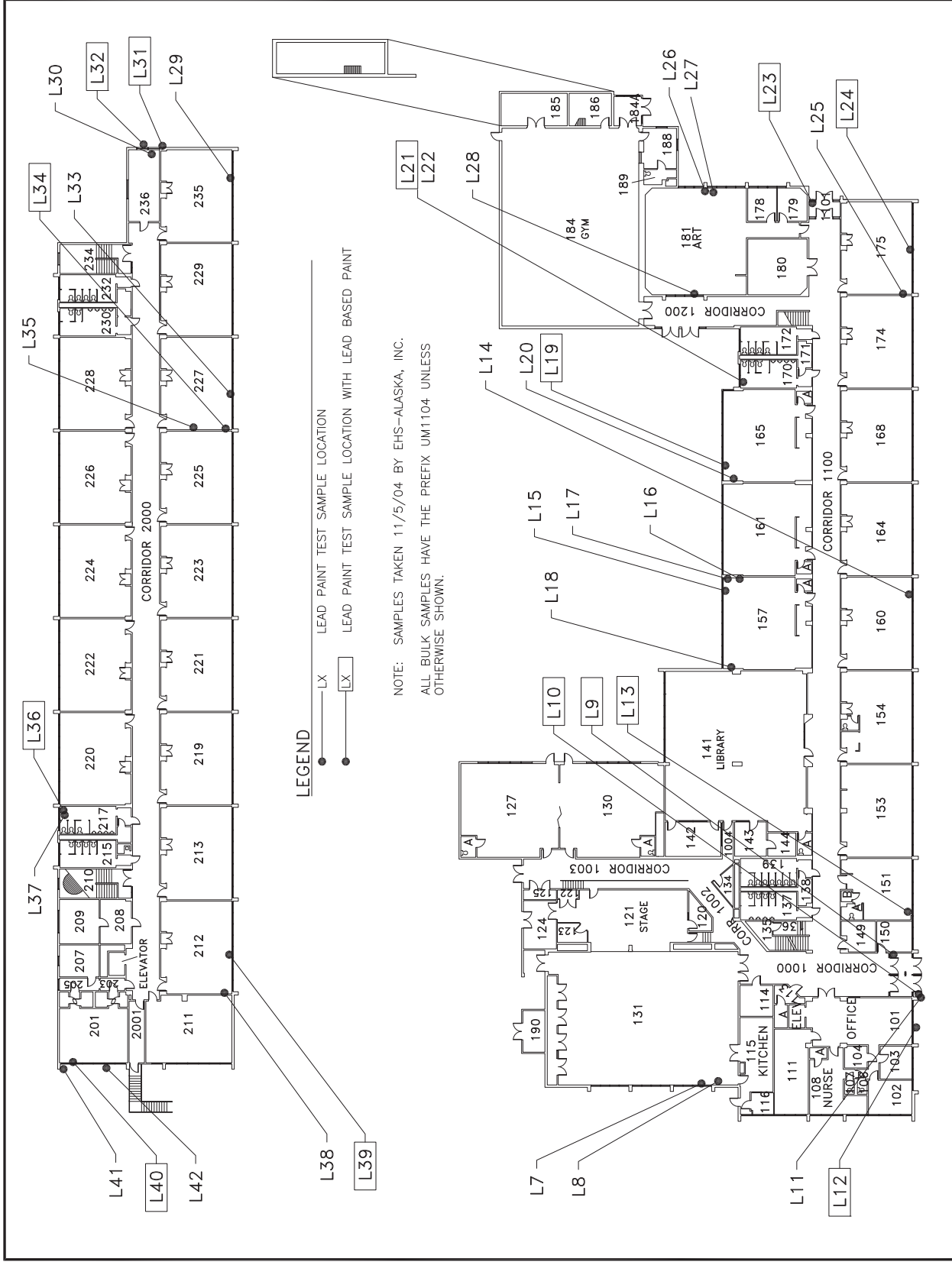


Section 02 26 00





ANCHORAGE SCHOOL DISTRICT	PROJECT TITLE: Ursa Major School BLDG. #454 DYEA STREET FORT RICHARDSON, ALASKA 99505	ENGINEERING, HEALTH & SAFETY CONSULTANTS EHS ALASKA INCORPORATED 1801 BUILDING BLDG. 200, 4th Floor, Anchorage, AK 99501-7701 PH: 907-684-1383 FAX: 907-684-1382	DRAWN: CWN CHECKED: RNF DATE: 11/5/04 REVISIONS: -	CADD FILE: 6141-SU	DUST SAMPLE PLANS	SHEET NO. 2 OF 3
	2 OF 3					





ANCHORAGE
SCHOOL
DISTRICT

PROJECT TITLE:
URSA MAJOR SHCOOL
BLDG. #454 DYEA STREET
FORT RICHARDSON, ALASKA 99505

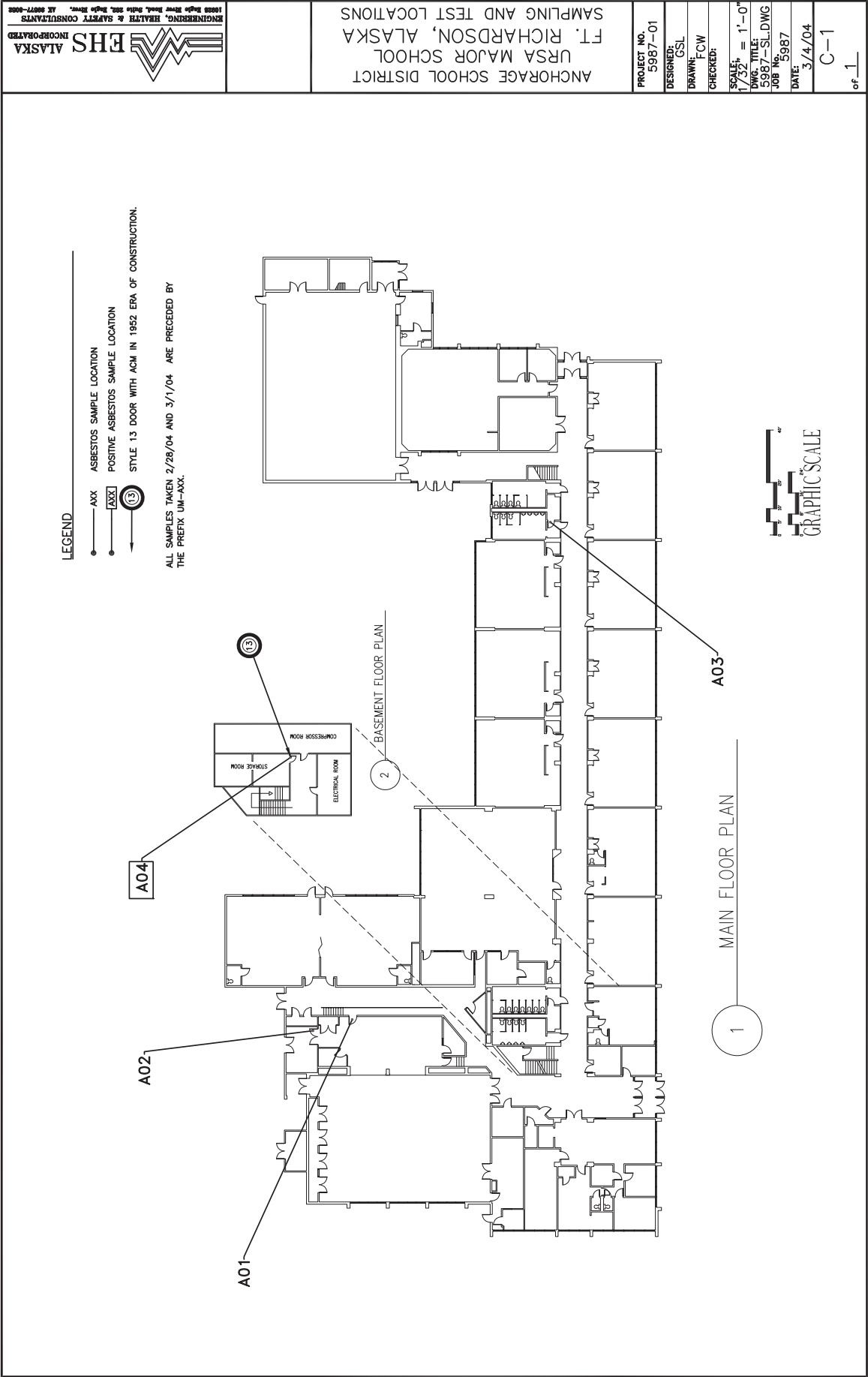
ENGINEERING, HEALTH & SAFETY CONSULTANTS
EHS ALASKA
INCORPORATED
1801 BUILDER BLDG. SUITE 200
FTE: 907-684-1383 FAX: 907-684-1382
WFO: 907-684-1383 FAX: 907-684-1382

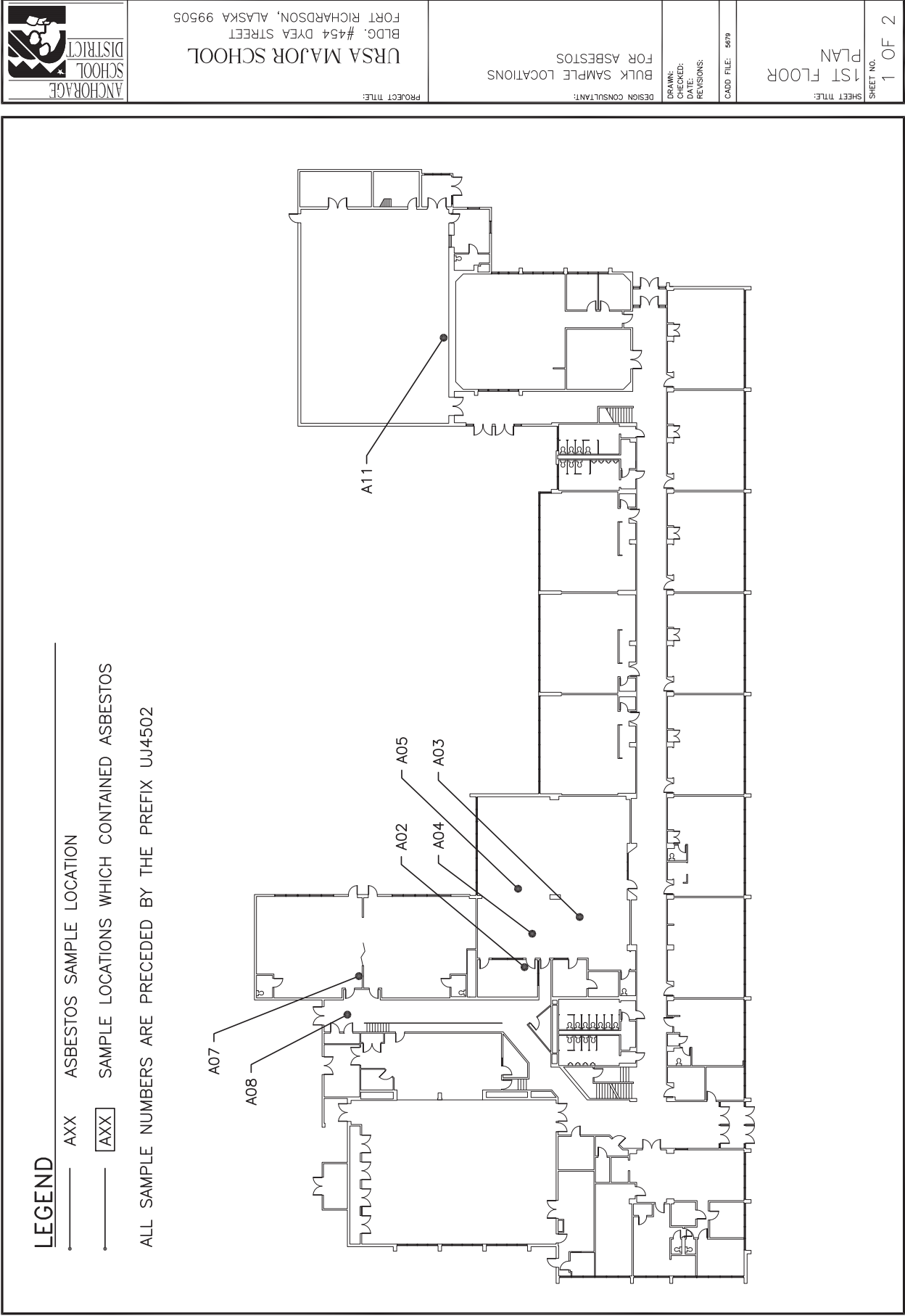
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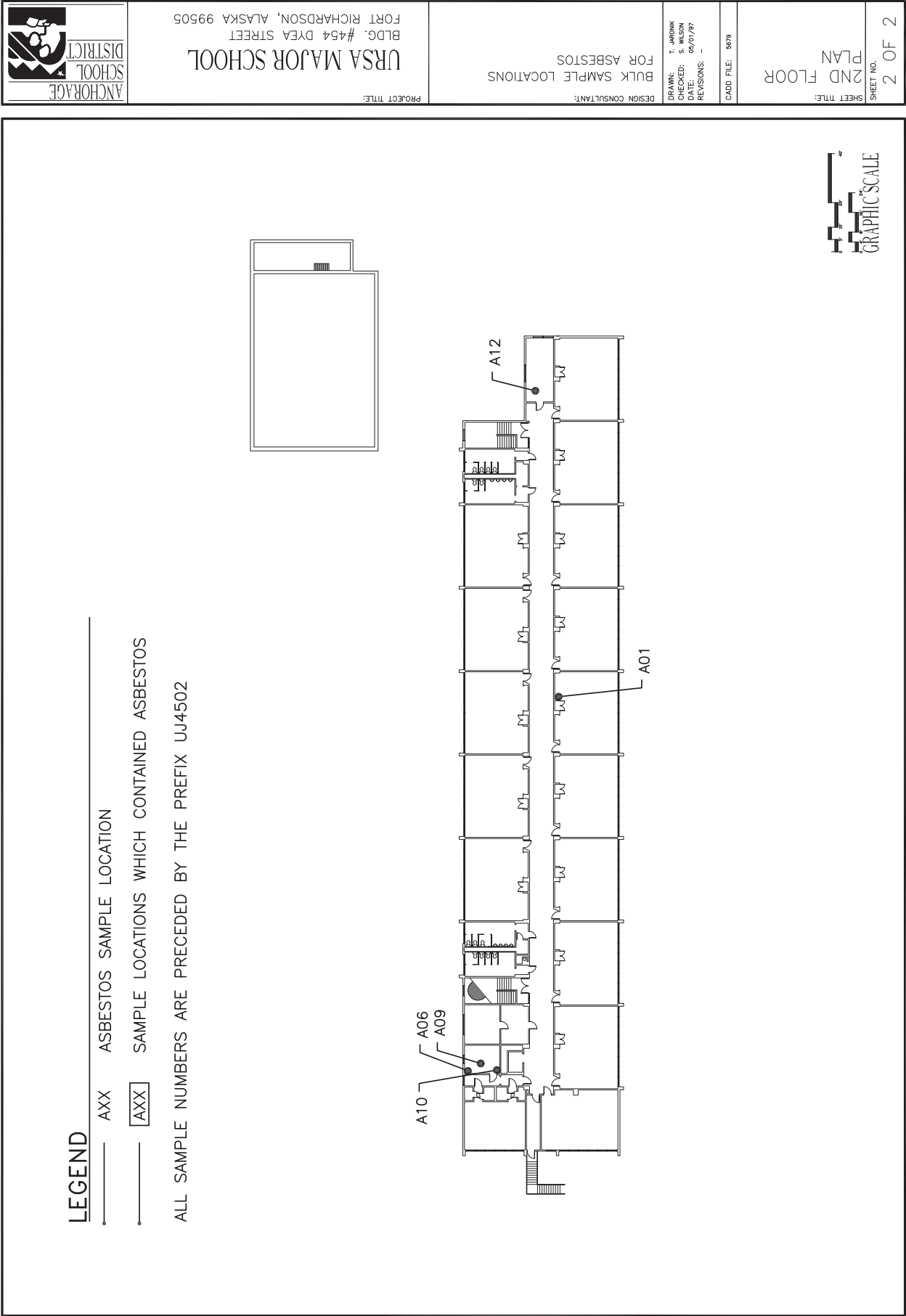
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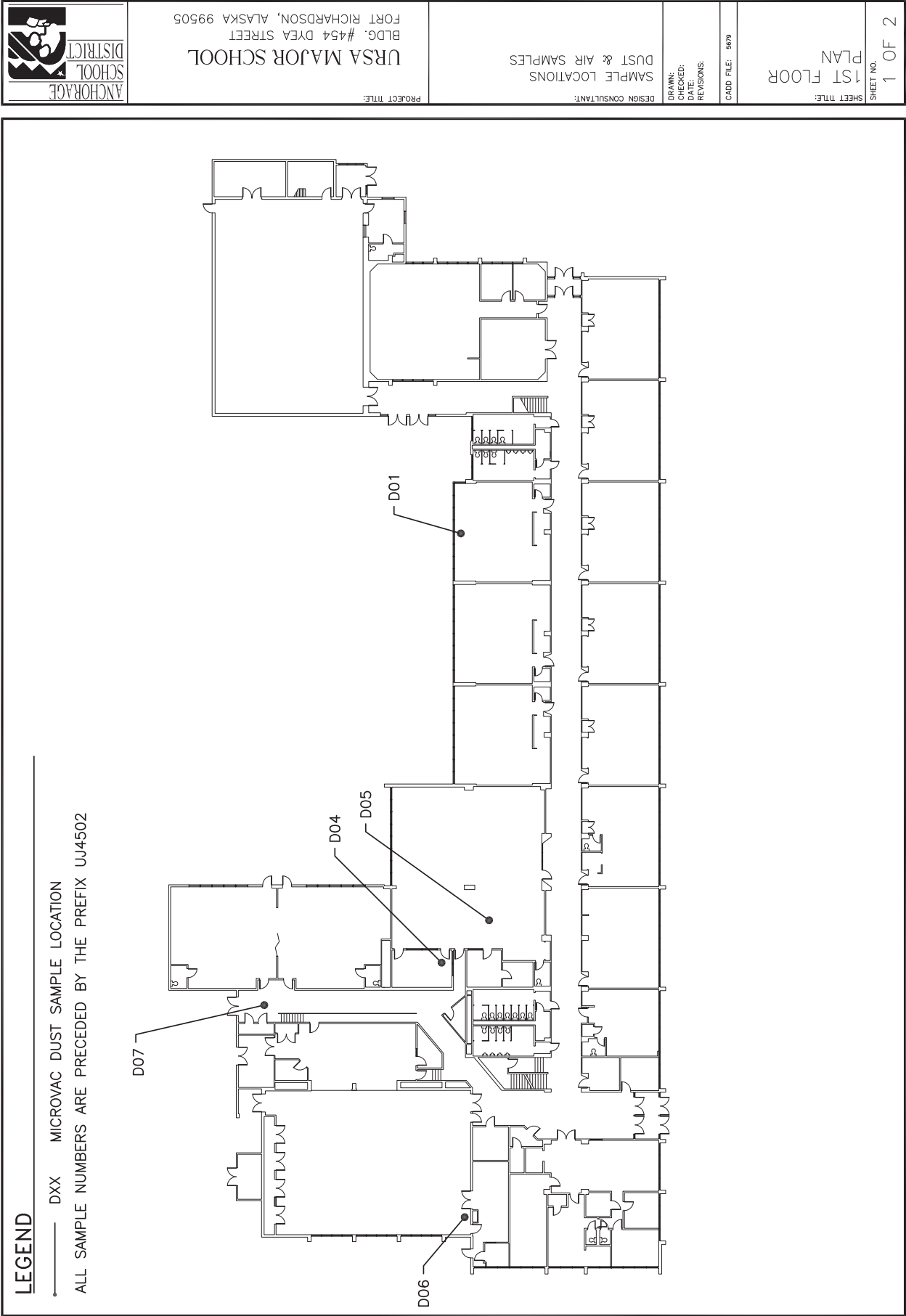
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LOCATIONS

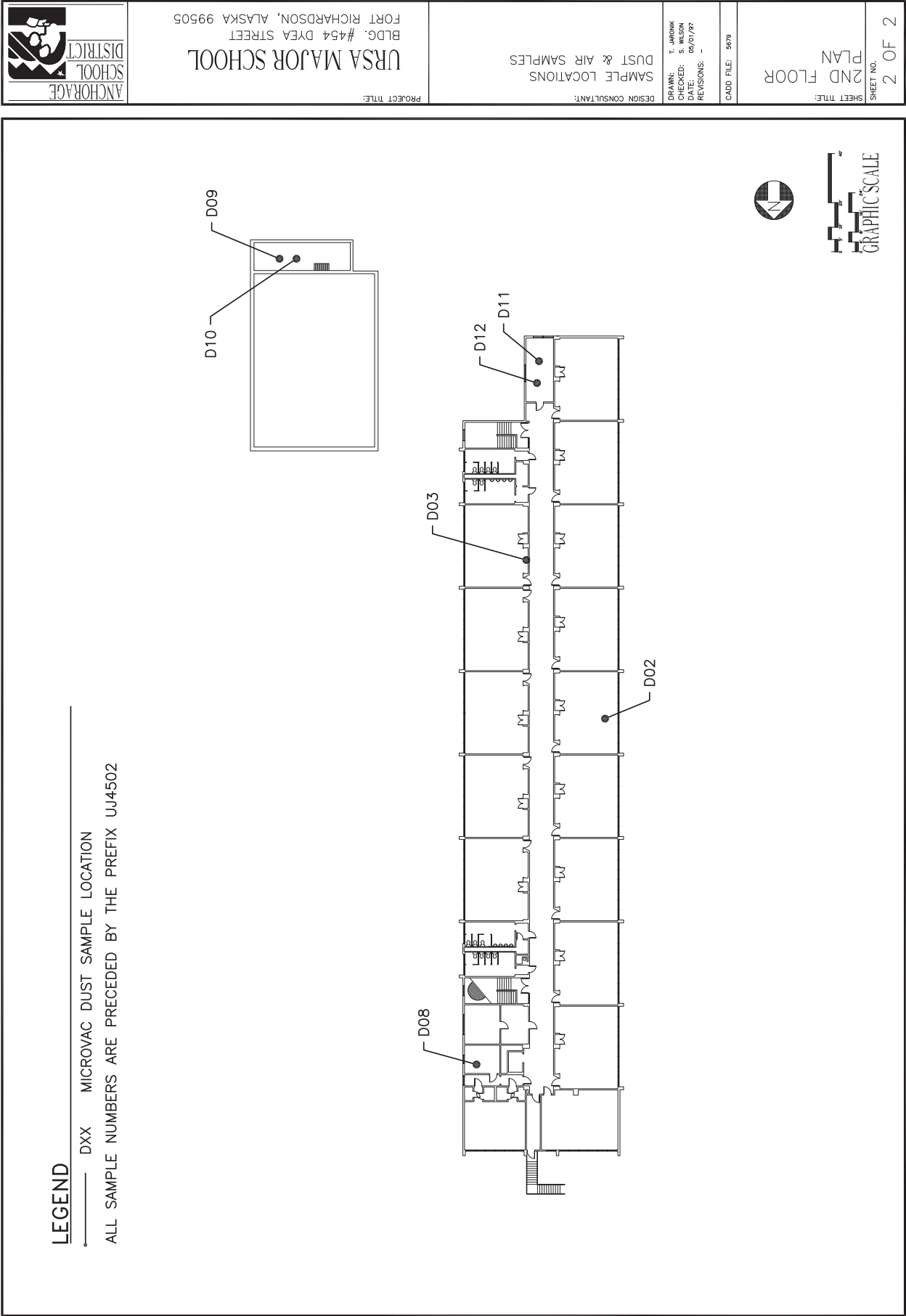
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3 OF 3

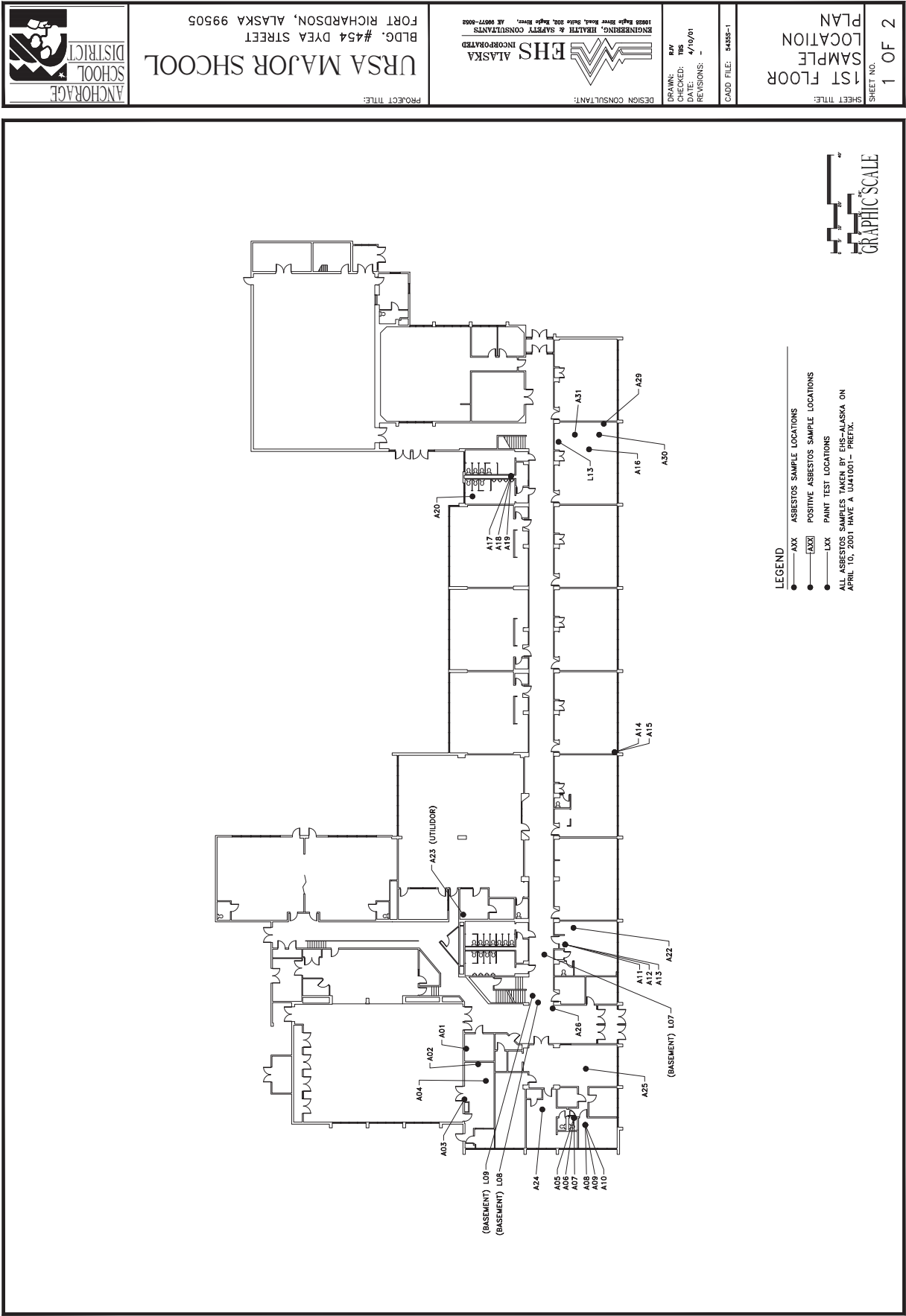




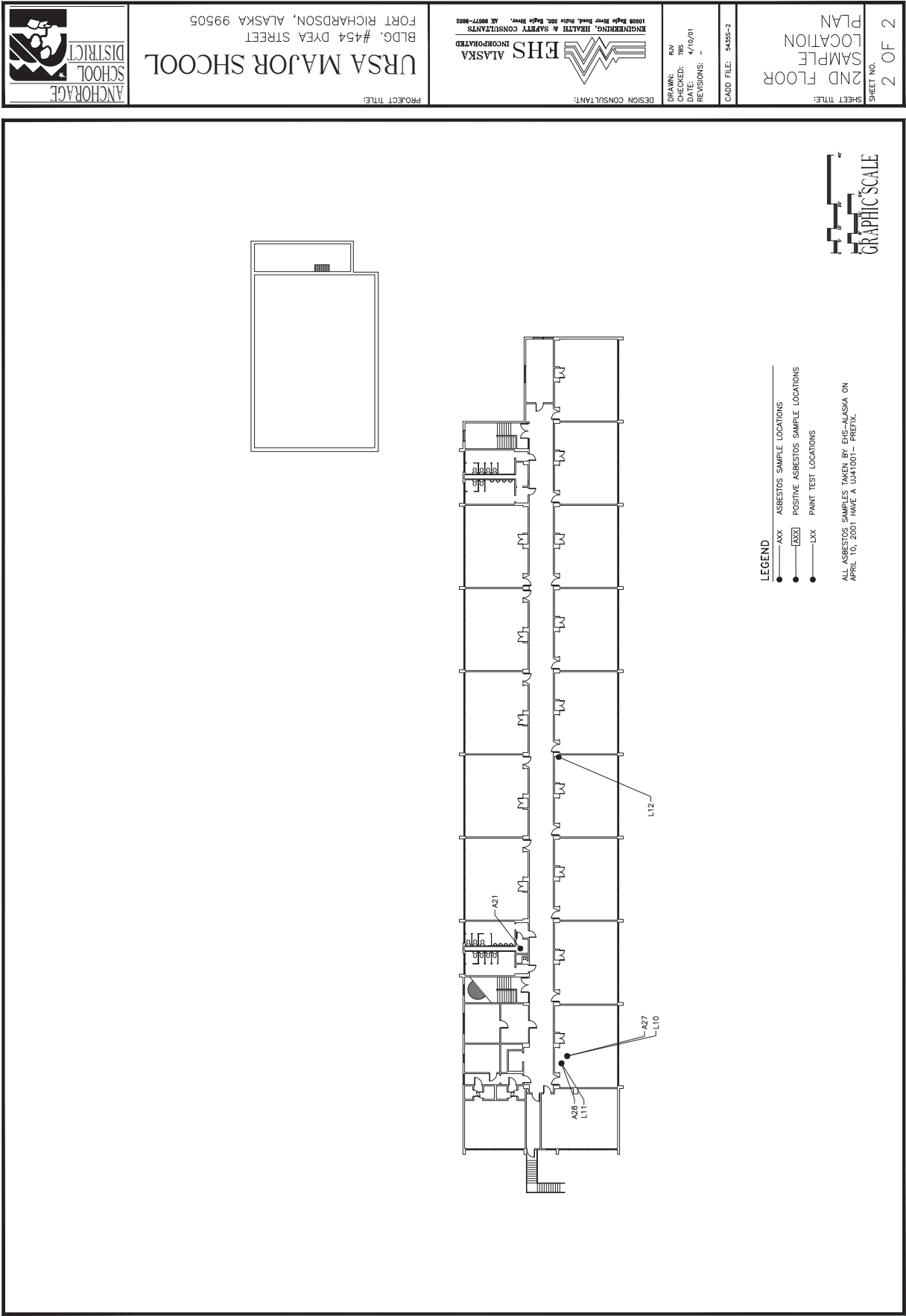




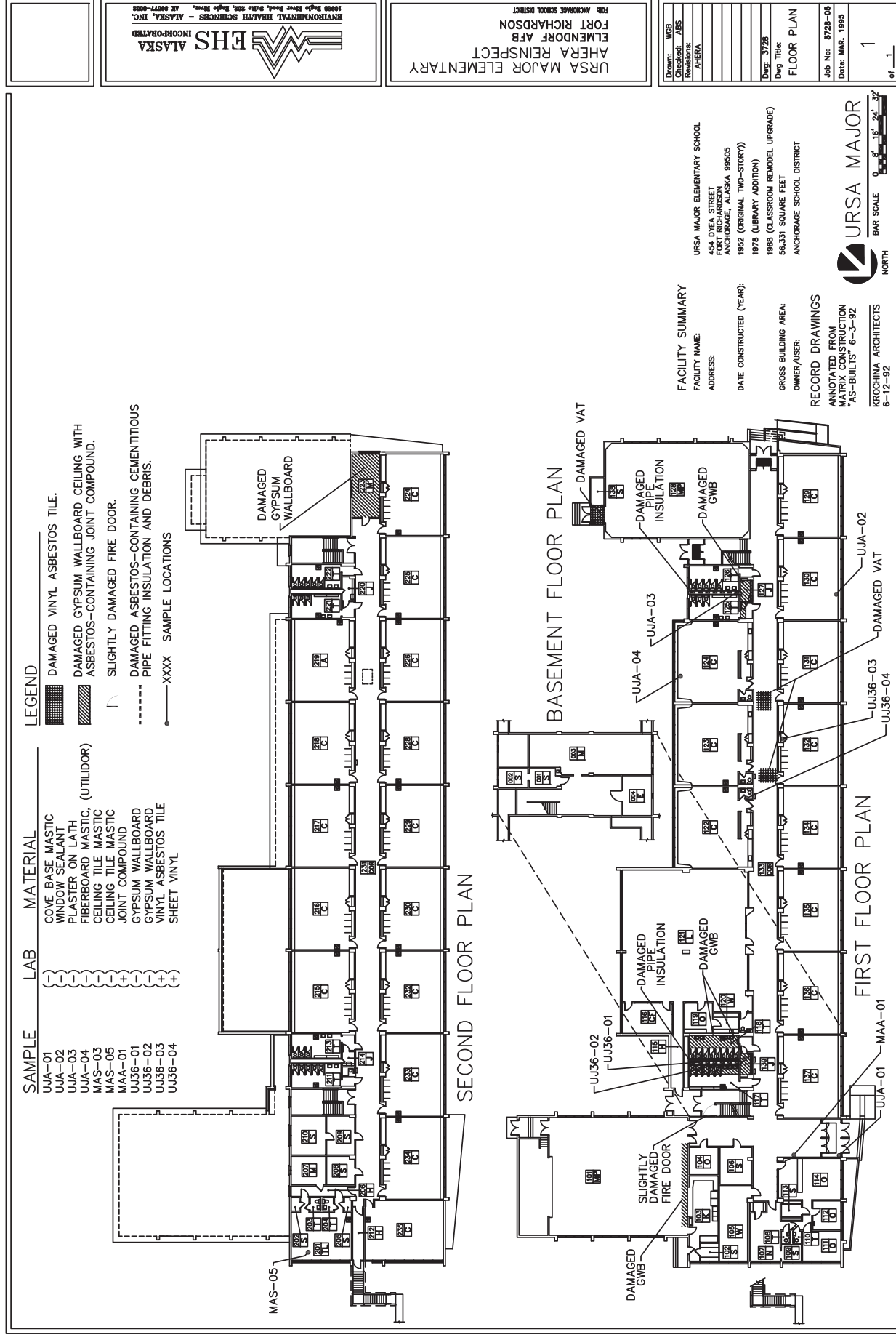




 ANCHORAGE SCHOOL DISTRICT	PROJECT TITLE: URSA MAJOR SHCOOL BLDG. #454 DYEA STREET FORT RICHARDSON, ALASKA 99505	 EHS ALASKA INCORPORATED ENGINEERING, HEALTH & SAFETY CONSULTANTS 10008 Eighth Avenue Road, Suite 302, Eighth River, AK 99577-0023	DESIGN CONSULTANT:	DRAWN: RZY CHECKED: TBS DATE: 4/10/01 REVISIONS: 1	CADD FILE: 54885-1	SHEET TITLE: 1ST FLOOR SAMPLE LOCATION PLAN	SHEET NO. 1 OF 2



HAZARDOUS MATERIALS ASSESSMENT
Division 2
Section 02 26 00



DEMOLITION

PART 1. GENERAL

1.01 SECTION INCLUDES

- A. Building demolition .
- B. Selective demolition of built site elements.
- C. Abandonment and removal of existing utilities and utility structures.

1.02 RELATED REQUIREMENTS

- A. Section 01 35 45 - Airborne Contamination Control.
- B. Section 01 74 19 - Construction Waste Management and Disposal: LEED requirements for disposal of demolition and construction waste.
- C. Section 02 26 00 - Hazardous Materials Assessment: Other hazardous material abatement.
- D. Section 02 82 33 - Removal and Disposal of Asbestos Containing Materials: Other hazardous material removal and disposal.
- E. Section 02 83 33 - Removal and Disposal of Materials Containing Lead: Other hazardous material removal and disposal.
- F. Section 02 84 18 - Removal and Disposal of Chemical Hazards: Other hazardous material removal and disposal.

1.03 DEFINITIONS

- A. Demolition: Dismantle, raze, destroy or wreck any building or structure or any part thereof.
- B. Remove: Detach or dismantle items from existing construction and dispose of them off site, unless items are indicated to be salvaged or reinstalled.

1.04 SUBMITTALS

- A. See Section 01300 - Administrative Requirements for submittal procedures.
- B. Site Plan: Indicate:
 - 1. Vegetation to be protected.
 - 2. Areas for temporary construction and field offices.
 - 3. Areas for temporary and permanent placement of removed materials.
- C. Demolition Plan: Submit demolition plan as required by OSHA and local AHJs.
 - 1. Indicate extent of demolition, removal sequencing, bracing and shoring, and location and construction of barricades and fences.
 - 2. Demolition firm qualifications.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.05 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Company specializing in the type of work required.
 - 1. Minimum of 5 years of documented experience.

PART 2. PRODUCTS (NOT USED)

PART 3. EXECUTION

3.01 DEMOLITION

- A. Remove the entire school building and utility building_____
- B. Remove paving and curbs as indicated in drawings.
- C. Remove playground equipment as indicated in drawings.
- D. Remove vegetation as indicated in drawings.
- E. Remove manholes and manhole covers, curb inlets and catch basins.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Use of explosives is not permitted.
 - 3. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 4. Provide, erect, and maintain temporary barriers and security devices.
 - 5. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 6. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
 - 7. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
 - 8. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Hazardous Materials:
 - 1. If hazardous materials not indicated in the drawings and hazardous materials report are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCBs, and mercury.
- D. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

3.03 EXISTING UTILITIES

- A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone. Identify and mark, in same manner as other utilities to remain, utilities to be reconnected.

3.04 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. The work requires the disturbance, demolition, removal, and disposal of the following asbestos-containing materials (ACM) from the Ursa Major Elementary School Replacement Project as shown on the drawings and as specified herein. Note that some of these materials have been shown to also contain PCB's, and others are assumed to contain PCB's. Bulk samples have been taken of suspect materials in this facility and the results are documented in Section 02 26 00, Hazardous Materials Assessment:
1. Spray on ("popcorn") green ceiling texture and overspray above ceiling in first floor bathrooms in the 1952 era (confirmed asbestos-containing).
 2. Acoustic plaster wall coating in MPR 117 on top half of northwest concrete wall within gypsum wallboard soffit (confirmed asbestos-containing).
 3. Joint compound in gypsum wallboard systems on the ceilings and walls in the 1952 era (confirmed asbestos-containing).
 4. Cement asbestos board (CAB) in the 1952 era fan rooms and at exterior exit stair (confirmed asbestos-containing).
 5. Tan, chip pattern sheet vinyl flooring and mastics in library room 144 and 144A in the 1952 era (confirmed asbestos-containing).
 6. Black flooring mastic in the 1952 era, located throughout, some of the original asbestos floor tiles have been removed (confirmed asbestos).
 7. Various colors of 9" x 9" vinyl asbestos tile in the 1952 era covered in many areas with carpeting or a second layer of 12" x 12" vinyl composition tiles (confirmed asbestos).
 8. Door sealants in the 1952 era. (confirmed asbestos-containing).
 9. Remnants of window sealants in the 1952 era (confirmed asbestos-containing).
 10. Flange gaskets on piping (assumed asbestos-containing) in all eras.
 11. Tarry sound lining in clock/speaker boxes and ceiling mounted speaker boxes of 1952 era (confirmed ACM).
 12. Fire door insulation of one door in the 1952 era (confirmed asbestos-containing).
 13. Tarry damp-proofing at foundations throughout all eras (assumed ACM, and assumed to contain PCB's).
 14. Interior tarry damp-proofing sealant at interior side of all exterior concrete walls and underside of the roof in the original 1952 era (confirmed asbestos-containing and confirmed to contain PCB's).
 15. Built-Up roofing throughout all eras (confirmed in the 1952 era, assumed asbestos-containing in the 1984 and 1997 era).
 16. Roof patch tars throughout all eras (confirmed asbestos-containing).
 17. Sealants and patching tars of metal roofing (assumed asbestos-containing).
 18. Pipe insulation in the 1952 era (confirmed asbestos-containing, most removed).
 19. "Mag" and "Aircell" or other asbestos-containing insulation on active and abandoned direct-bury pipe insulation (assumed asbestos-containing).
 20. Buried cold water piping, and roof drain and/or storm water piping, assumed to be asbestos-cement, "Transite" piping (assumed asbestos-containing).
- B. Quantities of ACM and hazardous materials shown on drawings are based on a comprehensive survey of the building and take-offs from scale drawings. The Hazardous Material Assessment and quantities provided are considered a baseline for bid purposes. It is the contractor's responsibility to remove and dispose of all ACMs affected by the project from the site in accordance with applicable regulations. The contractor shall immediately notify the owner if other ACM or additional quantities are discovered. Quantities of materials removed shall be documented on a daily basis and shall include all materials

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

Division 2
Section 02 82 33

removed and locations, in the units used on the drawings. Unit pricing shall be provided in the bid for all identified hazardous material in case additional quantities are discovered.

- C. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.
- D. Asbestos-containing materials may have come loose and fallen onto or into, floors, ceilings, walls, chases, wall cavities or mechanical, electrical and structural system components. The Contractor shall immediately notify the Owner if and when they encounter worn, damaged, or deteriorated ACM as evidenced by dust or debris adjacent to ACM materials.
- E. Work may be required while other personnel are occupying the building. Work during occupied periods involving disturbance of asbestos-containing materials inside the building shall be performed using critical barriers and negative air pressure enclosures. Access to work area from within the building shall be blocked to prevent unauthorized or inadvertent entry. Access to work area shall be secured by lock when work is not ongoing.
- F. All work shall comply with Environmental Protection Agency (EPA) AHERA standard, 40 CFR 763. Visual inspections are required for all work disturbing or removing asbestos. For buildings being demolished, five (5) aggressive PCM clearance samples are required if the building will be entered by non-abatement workers prior to demolition, if they will not be entered by unprotected workers, no clearance samples are required.
- G. Coordinate work with utility companies, and provide temporary utilities if site utilities will be disconnected prior to, or during the building demolition.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01 35 45 Airborne Contaminant Control
- B. Section 02 26 00 Hazardous Materials Assessment
- C. Section 02 83 33 Removal and Disposal of Materials Containing Lead
- D. Section 02 84 18 Removal and Disposal of Chemical Hazards

1.03 DEFINITIONS AND ABBREVIATIONS: Definitions and abbreviations are provided in the applicable publications listed in Paragraph 1.04 of this section.

1.04 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced.

- A. General Requirements: All work shall be performed in compliance with the International Building, Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code; Uniform Plumbing Code; the National Electrical Code; and the publications listed in this section that are in effect at the time of the bidding of this contract.
- B. Title 29 Codes of Federal Regulations (CFR), Department of Labor (USDOL) Part 1910 General Occupational Safety and Health Standards Part 1926 Safety and Health Regulations for Construction
- C. Title 40 CFR, Environmental Protection Agency (EPA)
 - Part 61 National Emission Standards for Hazardous Air Pollutants
 - Part 311 Worker Protection

- Part 763 Asbestos
- D. Title 49 CFR, Department of Transportation (DOT)
 - Part 171 General Information, Regulations and Definitions
 - Part 172 Hazardous Materials Communication and Regulations
 - Part 173 General Requirements for Shipments and Packaging
 - Part 177 Carriage by Public Highway
 - Part 178 Specifications for Packaging
 - Part 382 Requirements for Drug Testing
 - Part 383 Commercial Driver's License Standards
- E. State of Alaska Administrative Codes (AAC)
 - 8 AAC 61 Occupational Safety and Health Standards
 - 18 AAC 60 Solid Waste Management
- F. State of Alaska Statutes
 - AS 18.31 Health and Safety - Asbestos
 - AS 45.50.477 Titles Relating to Industrial Hygiene
- G. Public Law 101-637
 - Asbestos School Hazard Abatement Reauthorization Act
- H. Federal Standards
 - 313E Safety Data Sheets
- I. American National Standard Institute (ANSI) Z9.2 Local Exhaust Systems
 - Z87.1 Eye and Face Protection
 - Z88.2 Practices for Respiratory Protection
- J. American Society for Testing and Materials (ASTM) D-4397 Polyethylene Sheeting
- K. International Code Council
 - International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Codes Current Standards
- L. National Fire Protection Association (NFPA)
 - NFPA 701 Fire Tests for Flame Resistant Textiles and Films
- M. National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods, Current Edition
- N. Underwriters Laboratories (UL)
 - UL 586 High-Efficiency, Particulate, Air (HEPA) Filter Units
- 1.05 QUALITY ASSURANCE
 - A. On-site Observation:
 - 1. The safety and protection of the Contractor's employees, sub-contractor's employees, Owner's employees, the facility, and the public is the sole responsibility of the Contractor.
 - 2. The Owner, the Owner's Representative or representatives of State or Federal agencies may make unannounced visits to the site during the work. The contractor shall make available two complete sets of clean, protective clothing for such visitor use. If the work requires the use of PAPR or Supplied Air Respirators, the contractor shall provide respirators to the visitor to ensure compatibility with fresh

batteries or supplied air system. It is the visitor's responsibility to ensure medical qualification, training, and current "fit test" prior to using any respirator provided by the Contractor.

3. If the Owner or agency visitor determines that practices are in violation of applicable regulations, they will immediately notify the Contractor that operations must cease until corrective action is taken. Such notification will be followed by formal confirmation.
4. The Contractor shall stop work after receiving such notification. The work may not be restarted until the Contractor receives written authorization from the Owner.
5. All costs resulting from such a stop work order shall be borne by the Contractor and shall not be a basis for an increase in the contract amount or an extension of time.

B. Air Monitoring: Air monitoring during the work shall be performed as follows:

1. The Contractor shall hire Independent Testing Laboratories to collect and evaluate all air samples that are the responsibility of the Contractor. The Contractor shall direct its laboratories, in writing, to release air monitoring data, and all other pertinent data and records, to the Owner. A copy of this written direction shall be submitted to the Owner along with the information required by Paragraph 1.13 of this Specification.
2. The Contractor shall be responsible for monitoring its employees for potential exposure to airborne asbestos fibers as required by this specification and all applicable regulations.
3. The Contractor shall be responsible for work area monitoring and environmental monitoring outside the work area as required by this specification.
4. The Owner may perform air monitoring inside the building, inside the work areas, and on the Contractor's employees while asbestos work is underway and at any time during the work.
5. Final inspection and clearance air monitoring shall be conducted by the Contractor's Independent Testing Laboratory. The Independent Testing Laboratory may not be hired by the Abatement Subcontractor to perform final visual inspections and clearance air monitoring.
6. The Contractor shall have its Independent Testing Laboratories archive all air samples until the successful completion of the project.

C. Additional Sampling of Suspect Materials:

1. The Contractor and all Subcontractors shall be vigilant during demolition and construction in the event additional suspect asbestos or hazardous materials are encountered. If suspect asbestos or hazardous materials not previously identified are encountered, the contractor shall stop work that may be affected by this material and immediately notify the Owner. The Owner or the Owner's Representative will provide recommendations and additional testing if necessary. All sampling by the Contractor shall be at their own cost.
2. The Contractor and all Subcontractors shall notify the Owner prior to any bulk sampling of suspect asbestos-containing material or other hazardous materials to allow the Owner or Owner's Representative to be present during such sampling. All results of bulk sampling conducted by the Contractor or Subcontractors shall be submitted to the Owner.

1.06 PROTECTION OF EXISTING WORK TO REMAIN: Perform asbestos removal in the project work areas without contamination of adjacent work or the facility.

1.07 MEDICAL REQUIREMENTS

- A. Institute and maintain a medical surveillance program for employees in accordance with

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

Division 2
Section 02 82 33

29 CFR 1926.1101 and 29 CFR 1910.134.

- B. Institute and maintain a random drug testing program, as required by 49 CFR 382, for all drivers of vehicles transporting asbestos or hazardous materials.
- 1.08 TRAINING: Employ only workers who are trained and certified as required by 8 AAC 61.600, 29 CFR 1910, 29 CFR 1926, 40 CFR 763, and 49 CFR 383 to remove, encapsulate, barricade, transport, or dispose of asbestos.
- 1.09 PERMITS AND NOTIFICATIONS: Secure necessary permits for asbestos removal, hauling, and disposal and provide timely notification as required by federal, state, and local authorities.
- 1.10 SAFETY AND ENVIRONMENTAL COMPLIANCE: Comply with laws, ordinances, rules, and regulations of federal, state, and local authorities regarding handling, storing, transporting, and disposing of hazardous materials and all other construction activities.
- 1.11 RESPIRATOR PROGRAM: Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134.
- 1.12 HAZARD COMMUNICATION PROGRAM: Implement a hazard communication program in accordance with 29 CFR 1910.1200.
- 1.13 SUBMITTALS
 - A. The Contractor shall submit the following documentation to the Owner for review, approval or rejection. Work shall not begin until submittals are approved.
 - 1. Shop drawings.
 - 2. Work plan.
 - 3. Liability insurance policy and performance bond.
 - 4. Schedule.
 - 5. Testing laboratory and laboratory personnel.
 - 6. Disposal site designations and disposal authorizations.
 - 7. Waste transporter designation.
 - 8. Notifications and certifications.
 - 9. "Competent Person" designation and experience.
 - 10. Request for substitutions.
 - B. Shop drawings shall show:
 - 1. Boundaries of each regulated work area.
 - 2. Location and construction of decontamination areas.
 - 3. Location of temporary site storage facilities.
 - 4. Location of air monitoring stations, both in and outside of the work area.
 - 5. Emergency egress route(s).
 - 6. Location of negative pressure exhaust systems, if required.
 - C. The work plan shall include procedures for:
 - 1. Work area setup and protection.
 - 2. Worker protection and decontamination.
 - 3. Initial exposure assessment procedures.
 - 4. Asbestos removal procedures.
 - 5. Waste load-out, transport, and disposal procedures.
 - 6. Air monitoring procedures.
 - a. Air monitoring procedures shall include the number of daily samples and the target volumes of each type of sample.
 - b. Clearance air monitoring procedures and protocols for each work area.

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

Division 2

Section 02 82 33

7. Determination by the Certified Project Designer of the estimated quantities of ACM and PACM to be removed, and determination of clearance requirements for each different type or phase of work.
 8. Emergency procedures.
 9. The Work Plan shall be prepared, signed and dated by an Environmental Protection Agency (EPA) Certified Project Designer.
- D. Insurance Policy and Bond: Submit copies of the Contractor's or Subcontractor's insurance policy and performance bond. Submittal requirement is only to ensure that the insurance certificate(s) show specific coverage for the potentially hazardous materials being handled by this project. The insurance and bond amounts and certificate holder requirements are addressed in other portions of the contract documents and are not covered as part of this submittal requirement.
- E. Schedule: Submit construction schedule by work area.
- F. Independent Testing Laboratories and Laboratory Personnel: Submit the name, location, and phone number of proposed independent testing laboratories, and the names and certifications of the industrial hygiene technicians. Include the laboratory's accreditation. Not all laboratories will require all accreditations.
1. The Independent Testing Laboratories shall be acceptable to Owner.
 2. The laboratories shall be proficient in the National Institute of Occupational Safety and Health (NIOSH) Proficiency in Analytical Testing (PAT) program and shall be accredited by the National Institute of Science and Technology (NIST) under their National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos analysis and airborne asbestos fibers as appropriate. NVLAP accreditation for bulk asbestos analysis may be waived if the microscopists are listed in the American Industrial Hygiene Association (AIHA) Asbestos Analyst Registry (AAR).
 3. Provide a current list of their microscopists who have participated in the latest PAT and NVLAP programs and provide the names of microscopists and evidence that they have completed the NIOSH 582 course or equivalent. Provide latest AAR report of performance for microscopists.
 4. Provide name(s) and resume(s) of proposed on-site industrial hygiene technician(s) showing academic degrees and Alaska Abatement Certificate(s). If On-Site analysis will be done, the microscopists shall be listed in the American Industrial Hygiene Association (AIHA) Asbestos Analyst Registry (AAR), or equivalent.
- G. Disposal Site: Submit the name and location of the proposed Alaska Department of Environmental Conservation / U.S. Environmental Protection Agency (DEC/EPA) permitted disposal site(s). Submit authorization to dispose of asbestos waste by the proposed disposal site operator.
- H. Waste Transporter: Submit the name and address of the proposed waste transporter.
- I. Representations: Submit a signed statement by the Contractor that records of employees' work assignments, certifications, respirator fit tests, and medical records are accurate, up-to-date, and available for inspection.
- J. Notifications and Certificates:
1. Submit a copy of the written "Notification of Demolition and Renovation" to the Environmental Protection Agency.
 2. Submit a State of Alaska Department of Labor (ADOL) approved copy of the written ADOL notification of proposed workers.
 3. Submit a copy of Project Designer's current certification.
- K. Competent Person: Submit the name and certifications of the Contractor's proposed

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

Division 2

Section 02 82 33

Competent Person and a list of their previous projects. Certify by signed statement that the Competent Person has the knowledge and training to supervise the work in compliance with the publications listed in Paragraph 1.04 above.

- L. Substitutions: Submit requests for substitutions of materials, equipment and methods.
 - M. Updated Project Information: Submit changes to the submitted project information at least 24 hours prior to the effective time of change for the following:
 - 1. Updated schedules.
 - 2. Change in Competent Person.
 - 3. ADOL approval for additional workers.
 - 4. Changes to work plan.
 - 5. Revisions to the EPA notification.
- 1.14 TEST REPORTS: Contractor shall submit periodic test reports, daily logs, monitoring results as specified herein. Submit two (2) copies of the following information within twenty-four (24) hours after the end of a shift:
- A. Initial Exposure Assessment(s): Submit the results of the Contractor's initial exposure assessment(s).
 - B. Daily Air Monitoring: Submit daily, all results of Contractor's air monitoring (submit no later than 24 hours after the end of the shift). Submittal shall consist of negative air pressure recordings, daily monitoring report, field data sheets, the analytical laboratory's results, and sketch of sample locations. Submit all results of any sampling of bulk materials to Owner within 24 hours of receipt of results. Bulk sample submittal shall consist of daily monitoring report, field data sheets, and the analytical laboratory's results, and sketch of sample locations, as well as the current certification of the asbestos Building Inspector who conducted the sampling.
 - C. Project Daily Logs: Submit the previous day's Daily Logs. Logs shall include regulated area sign-in sheets and list of asbestos-containing materials removed including quantities and locations of those materials, in the units used on the drawings. Claims for additional quantities will not be addressed unless daily quantities are submitted.
 - D. Clearance Air Monitoring: Submit draft results of Contractor's clearance air monitoring for each work area for Owner's review and approval prior to releasing the work area to unprotected workers. FAX or electronic submittals are acceptable. Submittal shall include the following:
 - 1. A signed and dated copy of the final visual inspection report (completed prior to clearance air monitoring) certifying that all dust and debris have been removed from the work area and that all ACM to be removed as required by the contract, were removed. Visual inspection reports are required for all removal, even if clearance air monitoring is not required.
 - 2. Documentation that clearance air sample collection complied with 40 CFR 763, contract specifications and the approved work plan.
 - 3. Drawings of the work area with sampling locations clearly marked. Work area drawings shall be clearly identified as to their location within the facility.
 - 4. Field data sheets for sampling including: sample locations, calibration device serial number, initial and final pump calibration readings, pump time on and off, initial and final sampling flow rate, pump type and serial number, and sample cassette identification.
 - 5. Laboratory results, signed and dated by the analyst.
 - 6. Data sheets and visual inspection sheets shall be signed and dated by the Industrial Hygiene Technician performing the work.
- 1.15 PROJECT COMPLIANCE DOCUMENTS: Prepare and submit the following records of compliance

with hazardous materials regulations following each work area clearance. Submittals may contain segregated submittals for more than one (1) work area. Submittal shall be received by Owner within four (4) weeks following work area clearance. Compliance documents shall be signed and dated and shall include as a minimum:

- A. Waste transport records (40 CFR 61, Figure 4).
- B. Disposal site receipts.
- C. Contractor's "Start" and Finish" dates for the work area(s).
- D. Daily logs, including regulated area sign in sheets, materials summary, etc. (if not previously submitted).
- E. Final work area inspection report(s) and inspector certifications (if not previously submitted).
- F. Final, signed, clean copies of all bulk and air sampling field data sheets, location drawings, negative air tapes and air monitoring log, including all clearance data.
- G. Final, signed, clear, legible copies of all analytical laboratory bulk and air monitoring test results, including all clearance data, and current laboratory certifications (if changed from previously submitted).
- H. Copies of Asbestos Worker Training certificates for workers performing work on this project and all approved Alaska DOL notifications for those workers, and any revisions to the EPA notification(s).

1.16 SANITARY FACILITIES: Provide adequate toilet and hygiene facilities.

1.17 MATERIAL STORAGE: Store all materials subject to damage off the ground and secure from damage, weather, or vandalism.

1.18 ON-SITE DOCUMENTATION: The Contractor shall maintain on the job site, at a location approved by the owner, copies of the following data for safety procedures, equipment, and supplies used for the work

- A. Equipment: Show the model, style, capacity and the operation and maintenance procedures for the following, as applicable:
 - 1. High-Efficiency, Particulate, Air (HEPA) Filtration units.
 - 2. HEPA Vacuum cleaners.
 - 3. Pressure differential recording equipment.
 - 4. Heat stress monitoring equipment.
- B. Safety Data Sheets (SDS): Maintain SDSs for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.
- C. Respiratory Protection Plan: The Contractor's and/or Subcontractor's written respirator program.

PART 2. PRODUCTS

2.01 PERSONAL PROTECTIVE EQUIPMENT: Provide personal protective clothing as approved and selected by the IH.

- A. Respirators: Provide personally issued and marked respirators approved by the National Institute of Occupational Safety and Health (NIOSH). Provide sufficient replacements for respirators with disposable canisters. Use respirators equipped with dual cartridges whenever both asbestos hazards and other respiratory hazards exist in the work area.
- B. Provide filter cartridges approved for each airborne contaminant which may be present. NIOSH approved filter cartridges shall be used. At no time shall the permissible exposure limit (PEL) for the contaminant exceed the PEL listed in 8 AAC 61.1100.

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

Division 2

Section 02 82 33

- C. Whole Body Protection: Provide approved disposable fire retardant, full body coveralls and hoods fabricated from nonwoven fabric, gloves, eye protection, and hard-hats, and other protective clothing as required to meet applicable safety regulations to personnel potentially exposed to asbestos above the permissible exposure limits (PELs). Wear this protection properly. Full facepiece respirators shall meet the requirements of ANSI Z87.1.
- D. Provide protective personal equipment and clothing at no cost to the workers.

2.02 DECONTAMINATION UNIT

- A. Provide a temporary three-stage decontamination unit, attached in a leak-tight manner to each negative pressure work area. Decontamination units shall consist of a clean room equipped with separate lockers for each worker, a shower room, and an equipment locker room equipped with separate lockers for each worker.
- B. Shower specifications: Locate flow and temperature controls within the shower where adjustable by the user. Hot water service may be secured from the building hot water system if available, but only with back-flow protection installed by the Contractor at the point of connection, and with prior notification and approval by the Owner. Should sufficient hot water be unavailable, the Contractor shall provide a minimum 40-gallon electric hot water heater with a minimum recovery rate of 20 gallons per minute. Water from the shower room shall not be allowed to wet the floor in the clean room.

2.03 WASTE WATER FILTERS: Provide Water Filtration Units with filters of adequate capacity to treat decontamination water and shower flows. Water filtration unit effluent shall contain less than 7,000,000 asbestos fibers per liter prior to discharge to sanitary sewer or storm drains.

2.04 DANGER SIGNS AND TAPE: Post danger signs and tape signs to demarcate areas where asbestos waste is temporarily stored, and, in areas not accessible to the public, where asbestos-containing materials are left in place. Signs and labels shall be in accordance with applicable regulations and codes. The signs posted at work area entrances, exits, decontamination areas, emergency egress, and waste disposal areas shall comply with 29 CFR 1926.1101 and the International Fire Code.

2.05 WARNING LABELS: Affix warning labels to all components or containers containing asbestos wastes. Conform labeling to 29 CFR 1926.1101 and 49 CFR 172.

2.06 HEPA FILTRATION UNITS: (if required) shall conform to ANSI Z9.2, and HEPA filters shall be UL-586 labeled.

2.07 PRESSURE DIFFERENTIAL MONITORING EQUIPMENT: Provide continuous monitoring of the pressure differential with an automatic recording instrument for each negative pressure enclosure. Locate the instrument in a clean area where personnel have access to it without respiratory protection. The instrument shall be fitted with an alarm should the negative pressure drop below - 0.02 inches of water column relative to the air outside containment.

2.08 CHEMICALS

- A. Adhesives: Adhesives shall be capable of sealing joints of adjacent sheets of polyethylene to finished or unfinished surfaces and of adhering under both dry and wet conditions.
- B. Mastic Removal Solvents: Mastic removal solvents shall not contain halogenated compounds or compounds with flashpoints less than 60° C (140° F). Solvents shall be compatible with replacement materials.
- C. Sealants and Encapsulants: Penetrating and bridging encapsulants for asbestos applications. Tint "Lock-Down" encapsulants used in non-finished areas for identification in a color that will not obscure residual asbestos. Encapsulants shall be compatible with replacement materials.
- D. Surfactant: Use a surfactant specifically designed to effectively wet asbestos. Mix and apply the surfactant as recommended by the manufacturer.

2.09 SAFETY DATA SHEETS (SDSs): Provide SDSs for all chemical materials brought onto the work-site.

2.10 MATERIALS

- A. Disposal Containers: Use disposal containers to receive, retain, and dispose of asbestos-containing or contaminated materials. Label leak tight containers in accordance with the applicable regulations. Non-leak tight containers are not acceptable. Plastic bags shall be a minimum 6-mil polyethylene, pre-printed with approved warning labels. Plastic wrap shall be 6-mil polyethylene sheets, securely wrapped and taped. Disposal containers shall be labeled with "ASBESTOS NA 2212," Contractor's name and location, and a Class 9 label.
- B. Glove Bags: The glove bags shall be a minimum of 6-mil polyethylene or polyvinylchloride plastic, and specially designed for removal of asbestos-containing materials, with two inward projecting long sleeves and rubber gloves, one inward projecting water wand sleeve, an internal tool pouch, and an attached, labeled receptacle for asbestos waste.
- C. Plastic Sheet: A minimum 6-mil thick flame resistant polyethylene (in accordance with NFPA 701) shall be used unless otherwise specified.
- D. Tape: Tape shall be capable of sealing joints of adjacent sheets of polyethylene, for attachment of polyethylene sheets to finished or unfinished surfaces and of adhering under both dry and wet conditions.

2.11 OTHER MATERIALS: The Contractor shall provide standard commercial quality of all other materials as required to prepare and complete the work.

2.12 TOOLS AND EQUIPMENT

- A. The Contractor shall provide tools and equipment as required to prepare and complete the work. Tools and equipment shall meet all applicable safety regulations.
- B. Transportation equipment shall be suitable for loading, temporary storage, transit, and unloading of contaminated waste without exposure to persons or property. All trucks or vans used to transport asbestos shall be enclosed and all containers sealed leaktight. Truck drivers shall have a commercial driver's license with hazardous material endorsement.

PART 3. EXECUTION

3.01 WORK AREAS

- A. Regulated Work Areas: Establish regulated work areas in compliance with 29 CFR 1926.1101.
- B. Decontamination Area: Install decontamination areas in compliance with 29 CFR 1926.1101. Decontamination area shall meet fire-exiting requirements of the International Fire Code. Showers shall be provided with hot water and water filtration units.
- C. Negative Pressure Enclosure System: Construct Negative Pressure Enclosure Systems as required by 29 CFR 1926.1101, these specifications, and approved work plan. Signage shall conform to the International Fire Code and 29 CFR 1926.1101. Exhausts from HEPA Filtration Units shall terminate outside of the building.
- D. Notify applicable Fire Marshal as required by the International Fire Code.

3.02 PERSONNEL PROTECTION PROCEDURES

- A. Contractor's Competent Person shall strictly enforce personal protection procedures as required by the approved work plan and all applicable regulations.
- B. Post the decontamination, safety, and work procedures to be followed by workers.
- C. Provide continuous on-site supervision by the approved Competent Person.

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

Division 2

Section 02 82 33

- D. Maintain a daily log of all workers and visitors entering regulated work areas. Log shall contain the name of each individual, their organization, accurate time of entering and leaving, and purpose of visit.
- 3.03 ASBESTOS REMOVAL PROCEDURES: Remove asbestos in accordance with the Contractor's Approved Work Plan, applicable regulations and this specification. The Owner shall be notified 24-hours in advance of any asbestos disturbance taking place outside of a Negative Pressure Enclosure System.
- 3.04 AIR MONITORING
- A. Perform personal, work area, and environmental monitoring for airborne asbestos fibers by industrial hygiene technicians who are employees of (one of) the Contractor's Independent Testing Laboratories.
 - B. Conduct air monitoring in accordance with 29 CFR 1926.1101, current EPA guidance, and as specified herein. Calibrate all sampling pumps on-site with a calibrated transfer standard before and after each sample. Built-in rotameters on pumps are not acceptable for calibration. Additional samples beyond the minimum numbers shown below may be necessary if samples are overloaded or require shorter sampling periods to achieve readable samples, due to size of the work force, or due to more than one 8-hour work shifts.
 - C. Conduct daily work area and environmental air monitoring per shift as follows:
 - 1. Three (3) air samples within the work area.
 - 2. One (1) air sample located outside the entrance to the work area.
 - 3. One (1) air sample located at the exhaust(s) of the HEPA filtration unit(s) (if more than one unit is used, the sampling may be rotated between units, however, each unit must be sampled at least once every three days).
 - 4. Three (3) air samples located in adjacent occupied areas.
 - 5. Two (2) waste load-out samples for the full duration of the operation, one taken inside the wash-down station and one taken on the clean side of the wash-down station, in addition to the daily work area and environmental samples, (no samples are necessary if no load-out operation is performed).
 - D. Clearance air monitoring shall be conducted by the Contractor's Independent Testing Laboratory subcontractor. The Independent Testing Laboratory may not be hired by the Abatement Subcontractor to perform visual inspections and clearance air monitoring. Owner approval is required before a work area is released to unprotected workers. The Contractor is responsible for all costs associated with clearance and scheduling of visual inspection and clearance air monitoring. If the building, or portions of the building will be entered by non-abatement personnel prior to demolition, the maximum acceptable level of airborne asbestos fibers for work area clearance is as published in 40 CFR 763 for PCM analysis. A minimum of five aggressive clearance samples are required for each work area, regardless of the type of analysis. The Contractor has the option, at its expense and at no cost to the Owner, of re-cleaning the work area and repeating the clearance air monitoring procedures or of having failed phase contrast microscopy (PCM) sample media sent to an approved NVLAP accredited laboratory for TEM analysis by NIOSH Method 7402.
 - E. Conduct personal air monitoring in accordance with 29 CFR 1926.1101 and as specified herein.
 - 1. Take personnel samples (excluding excursion samples) at least twice per eight-hour work shift at the rate of one sample for every six people performing that task in the same work area. Persons performing separate tasks or in separate work areas shall be sampled separately.
 - 2. Collect and analyze excursion samples as required by 29 CFR 1926.1101.
 - 3. Continuously monitor all workers disturbing asbestos outside of a Negative-

Pressure Enclosure System if that work is conducted indoors.

- F. Daily personnel monitoring may be discontinued only after the Contractor's Independent Testing Laboratory certifies in writing that a Negative Exposure Assessment has been obtained and the Owner has reviewed and approved the negative exposure assessment data. Daily work area and environmental air sampling may not be discontinued following a Negative Exposure Assessment.
- G. Submit air monitoring results to the Owner as specified in Paragraphs 1.14 and 1.15.

3.05 DISPOSAL

- A. Dispose of asbestos wastes in an EPA/DEC permitted asbestos landfill. Comply with current waste disposal, handling, labeling, storage, and transportation requirements of the waste disposal facility, U.S. Department of Transportation, and EPA regulations.
- B. Workers handling waste shall wear protective clothing and canister type respirators.
- C. Drivers of the waste transport vehicles need not wear respirators while enroute.
- D. Workers shall wear respirators when handling asbestos material at the disposal site.

3.06 CLEANING OF WORK AREA

- A. Remove all asbestos material and debris upon completion of asbestos repair or removal within a work area. Wet clean or HEPA vacuum all surfaces within the work area.
- B. Notify the Owner and the Independent Testing Laboratory that asbestos work has been completed and the work area is ready for visual inspection. Visual inspections are required even if clearance air monitoring is not required. Include in the visual inspection report a statement that all asbestos in the work area has been removed, repaired and/or encapsulated as required by the contract, and that all debris has been removed.
- C. All required demolition (ACM and non-ACM) shall be completed in each work area prior to clearance air monitoring. Exceptions may be made with prior approval of the Owner.
- D. A lockdown encapsulant shall be applied to all surfaces within the abatement areas prior to performing clearance air monitoring.

3.07 CLEARANCE AIR MONITORING

- A. The Contractor and its Independent Testing Laboratory shall conduct and document a visual inspection to verify that all asbestos in the work area has been removed, repaired and/or encapsulated as required by the contract, and that all debris has been removed.
- B. Final clearance air monitoring is not required unless the building, or portions of the building will be occupied by non-abatement personnel prior to demolition. Final Clearance tests shall not be performed until all areas and materials within the work area are fully clean and dry.
- C. Final clearance air monitoring shall be conducted by the Contractor's Independent Testing Laboratory in accordance with all applicable regulations and the Contractor's approved work plan after passing the visual inspection. The clearance criteria shall include a minimum of five clearance samples using "aggressive methods" collected and analyzed in accordance with 40 CFR 763. PCM analysis is allowed.
- D. If the final clearance air monitoring results show that the work area has failed to meet the clearance criteria, the Independent Testing Laboratory shall notify the Owner and the Contractor. The Contractor shall reclean the work area and request the Independent Testing Laboratory to conduct a follow-up inspection to be followed by another set of clearance air monitoring samples. All work specified in this paragraph shall be done at no additional expense to the Owner.

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

Division 2

Section 02 82 33

- E. If the clearance air monitoring results meet the clearance criteria of 40 CFR 763 and the specifications for the work and the Owner has reviewed and accepted the clearance results as required by 1.14 D, then the HEPA filtration units may be deactivated (if applicable) and all seals, barriers, barricades, and decontamination areas shall be dismantled and removed and the work area released to unprotected workers.
- F. Submit the final work area inspection report, clearance air monitoring field data sheets and the laboratory air monitoring report to the Owner as specified in Paragraph 1.15.

3.08 SUBSTANTIAL COMPLETION

- A. After the work area barriers and temporary construction and equipment have been removed, the Contractor shall inspect the work area to verify that no asbestos debris, contaminated water, or other residue remains. Any remaining residue shall be cleaned up using HEPA vacuum cleaners and wet wiping methods.
- B. A visual inspection of the soils of the site is required at the end of each work shift during building demolition, and submitted for approval. No visible building debris is allowed to be in the soil after demolition.
- C. The Contractor shall certify that the work area has been cleaned of all asbestos in compliance with the contract, and that there is no unrepaired damage to walls, ceilings, doors, surfaces, equipment or finishes other than that called for by the scope of work.
- D. Costs of restoration of damaged finishes or adjacent remaining items, such as roads or sidewalks shall be borne by the Contractor.

END OF SECTION

REMOVAL AND DISPOSAL OF MATERIALS CONTAINING LEAD

PART 1. GENERAL

1.01 DESCRIPTION OF WORK

- A. The work may require the disturbance (including cleanup of existing loose paint), demolition, or removal, and disposal of lead painted and/or lead-containing materials related to the Ursa Major Elementary School Replacement Project as shown on the drawings and as specified herein. Items to be disturbed may include, but are not limited to:
 - 1. Painted interior and exterior surfaces, including, but not limited to painted windows, doors and frames, painted mechanical and electrical equipment, painted structural and miscellaneous steel, etc.
 - 2. Metallic lead flashings at VTR's, roof drain bowl clamping rings, and other roof penetrations, etc.
 - 3. Metallic lead caulking in bell and spigot pipe joints.
 - 4. Metallic lead in pipe solder at copper pipe fittings.
 - 5. Glazing of ceramic plumbing fixtures and tiles.
 - 6. Lead-containing dust in and on architectural, structural, mechanical, and electrical components.
 - 7. Lead-acid batteries for exit and emergency lights, and other equipment.
- B. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.
- C. This building was constructed prior to 1978 and representative components affected by this project have been tested for lead-based paint. The building is not currently classified as a child occupied facility and therefore most requirements of 40 CFR 745 do not apply.
- D. The work includes all air monitoring, dust sampling, waste testing and disposal as specified herein. Materials listed are not necessarily hazardous waste or hazardous to handle. Lead-containing paints or materials identified for demolition and disposal shall be tested by the Toxicity Characteristics Leaching Procedure (TCLP) to determine if they are hazardous waste prior to disposal. Metal waste shall be recycled where practical.
- E. All work disturbing lead-containing materials shall comply with 29 CFR 1926.62 and other applicable regulations. OSHA regulations apply equally to lead-containing materials, lead-containing paints, and lead-based paints, and are referred herein as lead-containing materials.
- F. Coordinate work with utility companies, and provide temporary utilities if site utilities will be disconnected prior to, or during the building demolition.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01 35 45 Airborne Contaminant Control
- B. Section 02 26 00 Hazardous Materials Assessment
- C. Section 02 82 33 Removal and Disposal of Asbestos Containing Materials
- D. Section 02 84 18 Removal and Disposal of Chemical Hazards

REMOVAL AND DISPOSAL OF MATERIALS CONTAINING LEAD

Division 2
Section 02 83 33

- 1.03 DEFINITIONS AND ABBREVIATIONS: Definitions and abbreviations are provided in the applicable publications listed in Paragraph 1.04 of this section.
- 1.04 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced.
- A. General Requirements: All work shall be performed in compliance with the International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code; Uniform Plumbing Code; the National Electrical Code; and the publications listed in this section that are in effect at the time of the bidding of this contract.
 - B. Title 29 Code of Federal Regulations (CFR), Department of Labor (USDOL)
 - Part 1910 General Occupational Safety and Health Standards
 - Part 1926 Safety and Health Regulations for Construction
 - C. Title 40 CFR, Environmental Protection Agency (EPA)
 - Part 260 Hazardous Waste Management System: General
 - Part 261 Identification and Listing of Hazardous Wastes
 - Part 262 Standards Applicable to Generators of Hazardous Waste
 - Part 263 Standards Applicable to Transporters of Hazardous Waste
 - Part 270 Hazardous Waste Permit Program
 - Part 273 Standards for Universal Waste Management
 - Part 311 Worker Protection
 - Part 745 Lead Based Paint Poisoning Prevention in Certain Residential Structures
 - D. Title 49 CFR, Department of Transportation (DOT)
 - Part 171 General Information, Regulations and Definitions
 - Part 172 Hazardous Materials Communication and Regulations
 - Part 173 General Requirements for Shipments and Packaging
 - Part 176 Carriage by Vessel
 - Part 177 Carriage by Public Highway
 - Part 178 Specifications for Packaging
 - Part 382 Requirements for Drug Testing
 - Part 383 Commercial Driver's License Standards
 - E. Alaska Administrative Codes (AAC)
 - 8 AAC 61 Occupational Safety and Health Standards
 - 18 AAC 60 Solid Waste Management
 - 18 AAC 62 Hazardous Waste Management
 - 18 AAC 70 Water Quality Standards
 - 18 AAC 75 Oil and Hazardous Substances Pollution Control
 - F. Alaska Statutes (AS)
 - AS 45.50.447 Titles Relating to Industrial Hygiene

- G. Municipality of Anchorage
 - AMC 26.50.060 Specific Discharge Limitations
 - H. Federal Standards
 - 313E Safety Data Sheets
 - I. American National Standards Institute (ANSI) Z9.2 Local Exhaust Systems
 - Z87.1 Eye and Face Protection
 - Z88.2 Practices for Respiratory Protection
 - J. American Society for Testing and Materials (ASTM)
 - D 4397 Polyethylene Sheeting
 - E 1728 Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination
 - E 1792 Specification for Wipe Sampling Materials for Lead in Surface Dust
 - K. International Code Council
 - International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code Current Standards
 - L. National Fire Protection Association (NFPA)
 - NFPA 701 Fire Tests for Flame Resistant Textiles and Films
 - M. National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods, Current Edition
 - N. Underwriters Laboratories (UL)
 - UL 586 High-Efficiency, Particulate, Air (HEPA) Filter Units
- 1.05 QUALITY ASSURANCE
- A. On-site Observation:
 - 1. The safety and protection of the Contractor's employees, Subcontractor's employees, Owner's employees, the facility, and the public is the sole responsibility of the Contractor.
 - 2. The Owner, the Owner's Representative, or representatives of State or Federal agencies may make unannounced visits to the site during the work. The Contractor shall make available two complete sets of clean, protective clothing for such visitor use. If the work requires the use of PAPR or Supplied Air Respirators, the contractor shall provide respirators to the visitor to ensure compatibility with fresh batteries or supplied air system. It is the visitor's responsibility to ensure medical qualification, training, and current "fit test" prior to using any respirator provided by the Contractor.
 - 3. If the Owner or agency visitor determines that practices are in violation of applicable regulations, they will immediately notify the Contractor that operations must cease until corrective action is taken. Such notification will be followed by formal confirmation.
 - 4. The Contractor shall stop work after receiving such notification. The work may not be restarted until the Contractor receives written authorization from the Owner.
 - 5. All costs resulting from such a stop work order shall be borne by the Contractor and shall not be a basis for an increase in the contract amount or an extension of

time.

- B. Monitoring and Testing: Monitoring and testing during the work shall be performed as follows:
 - 1. The Contractor shall hire Independent Testing Laboratories to collect and evaluate all air, dust, bulk, and toxicity characteristic leaching procedure (TCLP) samples that are the responsibility of the Contractor. The Contractor shall direct its laboratories, in writing, to release monitoring and testing data, and all other pertinent data and records, to the Owner.
 - 2. The Contractor shall be responsible for monitoring its employees for potential exposure to airborne contaminants as required by this specification and all applicable regulations.
 - 3. The Contractor shall be responsible for work area monitoring and environmental monitoring outside the work area as required by this specification.
 - 4. The Owner may perform monitoring and testing inside the building, inside the work areas, and on the Contractor's employees while work is underway and at any time during the work.
 - 5. Final visual inspection testing shall be conducted by the Contractor's IH Technician.
 - 6. The Contractor shall have its Independent Testing Laboratories archive all samples until the successful completion of the project.
- C. Additional Sampling of Suspect Materials:
 - 1. The Contractor and all Subcontractors shall be vigilant during demolition and construction in the event additional suspect lead or hazardous materials are encountered. If suspect lead or hazardous materials not previously identified are encountered, the contractor shall stop work that may be affected by this material and immediately notify the Owner. The Owner or the Owner's Representative will provide recommendations and additional testing if necessary. All sampling by the Contractor shall be at their own cost.
 - 2. The Contractor and all Subcontractors shall notify the Owner prior to any bulk sampling of suspect lead-containing material or other hazardous materials to allow the Owner or Owner's Representative to be present during such sampling.
- 1.06 PROTECTION OF EXISTING WORK TO REMAIN: Perform lead removal in the project work areas without damage or contamination of adjacent work or the facility.
- 1.07 MEDICAL REQUIREMENTS
 - A. Institute and maintain a surveillance program in accordance with 29 CFR 1926.62 and 29 CFR 1910.134.
 - B. Institute and maintain a random drug testing program, as required by 49 CFR 382, for all drivers of vehicles transporting hazardous materials.
- 1.08 TRAINING: Employ only workers who are trained and certified as required by 29 CFR 1910, 29 CFR 1926, 40 CFR 311, 40 CFR 745 and 49 CFR 383 to remove, encapsulate, barricade, transport, or dispose of lead-containing materials.
- 1.09 PERMITS, IDENTIFICATION NUMBERS AND NOTIFICATIONS: Secure necessary permits for hazardous material removal, storage, transport and disposal and provide timely notification as required by federal, state, and local authorities.
- 1.10 SAFETY AND ENVIRONMENTAL COMPLIANCE: Comply with laws, ordinances, rules, and regulations of federal, state, and local authorities regarding handling, storing, transporting, and disposing of hazardous materials and all other construction activities.
- 1.11 RESPIRATOR PROGRAM: Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134.

1.12 HAZARD COMMUNICATION PROGRAM: Implement a hazard communication program in accordance with 29 CFR 1910.1200.

1.13 SUBMITTALS

A. Submit the following documentation to the Owner for review, approval or rejection. Work shall not begin until submittals are approved.

1. Shop drawings.
2. Work plan.
3. Liability insurance policy and performance bond.
4. Schedule.
5. Independent testing laboratory and laboratory personnel.
6. Disposal site designations.
7. Waste transporter designations.
8. Representations.
9. "Competent Person" designation and experience.
10. EPA Training certifications and notification plan, if required.
11. Request for substitutions.

B. Shop drawings shall show:

1. Boundaries of each lead work area, if required.
2. Location and construction of decontamination stations, if required.
3. Location of temporary site storage facilities.
4. Location of air monitoring stations, both in and outside of the work area.
5. Emergency egress route(s).
6. Location of negative pressure exhaust systems, if required.

C. The work plan shall include procedures for:

1. Work area set-up and protection.
2. Worker protection and decontamination.
3. Initial exposure determination(s).
4. Lead removal procedures.
5. Waste testing, transport, and disposal procedures.
6. Monitoring and testing procedures (Sampling and Analysis Plan).
7. Spill clean-up emergency procedures.

D. Insurance Policy and Bond: Submit copies of the Contractor's or Subcontractor's insurance policy and performance bond. Submittal requirement is only to ensure that the insurance certificate(s) show specific coverage for the potentially hazardous materials being handled by this project. The insurance and bond amounts and certificate holder requirements are addressed in other portions of the contract documents and are not covered as part of this submittal requirement.

E. Schedule: Submit construction schedule by work area.

F. Independent Testing Laboratories and Laboratory Personnel: Submit the name, location, and phone number of proposed independent testing laboratories, and the names and certifications of the industrial hygiene technicians. Include the laboratory's accreditation. Not all laboratories will require all accreditations.

1. The Independent Testing Laboratories shall be acceptable to Owner.
2. Submit evidence that the laboratory is currently judged proficient in lead analysis, as determined by the Environmental Lead Proficiency Analytical Testing (ELPAT) Program, of the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP) for lead in paint chip, soil, and dust wipe samples.
3. Submit evidence that the laboratory is currently certified by OSHA to perform

- blood lead analysis.
 4. Submit evidence that the laboratory has demonstrated proficiency as determined by ELPAT or ELLAP performance for NIOSH Method 7082 and/or NIOSH Method 7105 analytical method for the determination of lead in air.
 5. Submit evidence that the laboratory has demonstrated proficiency in performing analyses according to Method 1311 TCLP, corresponding to the current version of Test Methods for Evaluating Solid Wastes (Chemical Physical Methods), SW-846. Evidence may include successful participation in a recognized inter-laboratory quality control program such as a laboratory certified by the California Health and Welfare Agency, Department of Health Services, or a more informal inter-laboratory quality control program.
 6. Submit evidence that the laboratory is currently accredited by the American Industrial Hygiene Association (AIHA).
 7. Submit the name, address, telephone number, and résumé of the Contractor's Industrial Hygienist (IH) who prepared the Sampling and Analysis Plan and will oversee the on-site monitoring, visual inspections and clearance testing. Submit the names, addresses, and résumés of industrial hygiene technicians who may assist the IH for on-site tasks. Submit documentation that the IH has all the qualifications for the assigned duties as required by the Contractor's liability insurance policy.
 8. Submit copies of the Contractor's letter to each of the independent testing laboratories, directing each to release all the results for this project to the Owner, as these results become available and as specified herein.
- G. Disposal Site: Submit the name and location of the proposed Environmental Protection Agency (EPA) permitted disposal site.
- H. Waste Transporter: Submit the name and address of the proposed waste transporter.
- I. Representations: Submit statement by the Contractor that records of employees' work assignments, certifications, respirator fit tests, and medical records are accurate, up-to-date, and available for inspection.
- J. Competent Person: Submit the name and certifications of the Contractor's proposed Competent Person and a list of their previous projects. Certify that the Competent Person has the knowledge and training to supervise the work in compliance with the publications listed in Paragraph 1.04 above.
- K. Substitutions: Submit requests for substitutions of materials, equipment and methods.
- L. Updated Project Information: Submit changes to the submitted project information at least 24 hours prior to the effective time of change for the following:
1. Updated schedules for lead removal.
 2. Change in Competent Person.
 3. Changes to work plan.
- 1.14 TEST REPORTS: Submit the following documentation produced during the work as soon as received:
- A. Project Daily Logs: Submit the previous day's Daily Logs. Logs shall include regulated area sign-in sheets and list of lead-containing materials removed, including quantities and locations of those materials, in the units used on the drawings. Claims for additional quantities will not be addressed unless daily quantities are submitted.
- B. Daily Monitoring: Submit daily, all results of Contractor's air, and dust monitoring (submit no later than 24 hours after the end of the shift). Submittal shall consist of daily monitoring report, field data sheets, the analytical laboratory's results, and sketch of sample locations. Submit all results of any TCLP sampling or testing of bulk materials to Owner within 24 hours of receipt of results. Bulk or TCLP sample submittal shall consist

of daily monitoring report, field data sheets, the analytical laboratory's results, and sketch of sample locations (sketch not required for TCLP samples, but descriptions of materials included is required).

- 1.15 PROJECT COMPLIANCE DOCUMENTS: Submit the following documents to the Owner with application for final payment:
 - A. Contractor's actual project "Start and Finish" dates.
 - B. Daily logs, including sign in sheets, etc. (if not previously submitted).
 - C. Final Laboratory Results and Field Data Sheets, sample locations, etc. including all air, dust, soil, and waste testing results as required in Part 3 below.
 - D. Waste Shipment Records (Manifest EPA form 8700-22) if required.
 - E. Clearance sampling and soil sampling data sheets (if required) and laboratory reports.
 - F. Disposal site receipts, or certification of acceptance for recycling.
 - G. Final clearance submittals as outlined in 3.07 (if required).
 - H. Evidence that each employee who was engaged in lead disturbance/removal work or who was exposed to lead completed training on lead covering the requirements of 29 CFR 1926.62.
 - I. SANITARY FACILITIES: Provide adequate toilet and hygiene facilities.
- 1.16 MATERIAL STORAGE: Store all materials subject to damage off the ground and secure from damage, weather, or vandalism.
- 1.17 ON-SITE DOCUMENTATION: The Contractor shall maintain on the job site, at a location approved by the owner, copies of the following data for safety procedures, equipment, and supplies used for the work.
 - A. Equipment: Show the model, style, capacity and the operation and maintenance procedures for the following, as applicable:
 1. High-Efficiency, Particulate, Air (HEPA) Filtration units.
 2. HEPA Vacuum cleaners.
 3. Pressure differential recording equipment.
 4. Heat stress monitoring equipment.
 - B. Safety Data Sheets (SDSs): Maintain SDSs for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.
 - C. Respiratory Protection Plan: The Contractor's written respirator program.

PART 2. PRODUCTS

- 2.01 PERSONAL PROTECTIVE EQUIPMENT: Provide personal protective clothing as approved and selected by the IH.
 - A. Respirators: Provide personally issued and marked respirators approved by the National Institute of Occupational Safety and Health (NIOSH). Provide sufficient replacements for respirators with disposable canisters. Use respirators equipped with dual cartridges whenever both lead hazards and other respiratory hazards exist in the work area.
 - B. Provide filter cartridges approved for each airborne contaminant which may be present. NIOSH approved filter cartridges shall be used. At no time shall the permissible exposure limit (PEL) for the contaminant exceed the PEL listed in 8 AAC 61.1100.
 - C. Whole Body Protection: Provide approved aprons, gloves, eye protection, and hard-hats, and other protective clothing as required to meet applicable safety regulations to

personnel potentially exposed to lead dust or fumes above the permissible exposure limit (PEL). Wear this protection properly. Full facepiece respirators shall meet the requirements of ANSI Z87.1.

- D. Provide protective personal equipment and clothing at no cost to the workers.

2.02 DECONTAMINATION UNIT

- A. Provide a temporary three-stage decontamination unit, attached in a leak-tight manner to each Contained Work Area. Decontamination units shall consist of a clean room equipped with separate lockers for each worker, a shower room, and an equipment locker room equipped with separate lockers for each worker.
- B. Shower specifications: Locate flow and temperature controls within the shower and be adjustable by the user. Hot water service may be secured from the building hot water system if available, but only with back-flow protection installed by the Contractor at the point of connection, and with prior notification and approval by the Owner. Should sufficient hot water be unavailable, the Contractor shall provide a minimum 40 gallon electric hot water heater with a minimum recovery rate of 20 gallons per hour. Water from the shower room shall not be allowed to wet the floor in the clean room.

- 2.03 WASTE WATER FILTERS: Install the waste water filters in a series of stages with the final filtration stage sufficient to meet discharge standard of 18 AAC 70 and/or any local sewage system discharge limit for lead. Size the waste water pump for 1.25 times the shower head flow-rate. Dispose all filters as lead contaminated waste.
- 2.04 WARNING SIGNS AND TAPE: Post warning signs and tape at the boundaries and entrances to lead disturbance and removal work areas. Signs required by other statutes, regulations, or ordinances may be posted in addition to, or in combination with, this warning sign. Conform warning signs and tape to the requirements of 29 CFR 1926.62.
- 2.05 WARNING LABELS: Affix warning labels to all hazardous waste disposal containers as described in the Contractor's approved Solid Waste Disposal Plan. Conform labeling to 29 CFR 1926.62 and 49 CFR 100-199.
- 2.06 NEGATIVE PRESSURE EXHAUST SYSTEM: Use the negative pressure exhaust systems to exhaust each contained work area where the PEL will or is expected to be exceeded. Operate the negative pressure exhaust system continuously (24 hours a day) during lead work. Select the negative pressure exhaust system equipment to provide a minimum of 4 air changes per hour under load within the work area. The negative pressure exhaust system shall have a minimum of two stages of pre-filtration ahead of the HEPA filter: The HEPA filter shall bear the UL-586 label. In no case shall the building ventilation system be used as the local exhaust for the contained work area. Terminate the exhaust outside of the building. The exhaust ventilation system equipment shall be equipped with lock-out protection to prevent operation without a HEPA filter properly installed. The exhaust system equipment shall be equipped with the following instrumentation: a static pressure gauge with low flow alarm, an elapsed time indicator, automatic shutdown capability in the event of a major rupture in the HEPA filter or blocked air discharge and an automatic re-start when power is restored after a power failure.
- 2.07 PRESSURE DIFFERENTIAL MONITORING EQUIPMENT: Provide continuous monitoring of the pressure differential with an automatic recording instrument for each contained work area. Locate the instrument in a clean area where personnel have access to it without respiratory protection. The instrument shall be fitted with an alarm should the negative pressure drop below -0.02 inches of water column relative to the air outside containment.
- 2.08 TOOLS: Vacuum cleaners shall be equipped with HEPA filters. Use only approved power tools to remove lead-containing material. Do not use open-flame and electric element heat-gun type tools with temperatures in excess of 700° F to remove lead-containing material. Remove all residual lead contamination from reusable tools being removed from lead disturbance or removal work areas. Electrical tools and equipment shall be UL listed.

- 2.09 AIR MONITORING EQUIPMENT: The Contractor's IH shall select the air monitoring equipment to be used for the evaluation of airborne lead.
- 2.10 EXPENDABLE SUPPLIES: Provide flame resistant 6-mil thick polyethylene sheet plastic in widths necessary to minimize seams.
- 2.11 SAFETY DATA SHEETS (SDSs): Provide SDSs for all chemical materials brought onto the work-site.
- 2.12 OTHER ITEMS: Provide other items, such as consumable materials, disposable and/or reusable cleaning equipment and hand tools, or miscellaneous construction equipment and materials, in sufficient quantity as necessary to fulfill and complete the requirements of the contract. Electrical equipment and supplies shall be UL listed.
- 2.13 ENCAPSULANTS: Encapsulants shall contain no toxic or hazardous substances. Encapsulants shall be compatible with the products to which they are applied and be compatible with replacement products.

PART 3. EXECUTION

3.01 WORK AREAS

- A. Lead Control Areas: A control area, structure or containment where lead-containing or contaminated materials are being disturbed. Critical barriers and/or physical boundaries shall be employed to isolate the lead control area and to prevent migration of lead contamination and unauthorized entry of personnel.
- B. Contained Lead Work Area Requirements: Construct contained lead work areas as described in the Contractor's approved work plan. A contained lead work area is required whenever airborne lead levels cannot be maintained below the OSHA action level at the boundary of a lead work area.
- C. Building Ventilation System: Shut down and isolate by air-tight seals all building ventilation systems supplying air into or returning air from a lead control area or contained lead work area.
- D. Building Electrical Systems: Verify that the electrical service is deactivated, disconnected and locked out where necessary for wet washing and/or removal. Provide temporary electrical service, equipped with ground fault protection, where needed.

3.02 PERSONNEL PROTECTION PROCEDURES

- A. Initial Determination: An initial determination is required in the absence of acceptable prior exposure data in accordance with 29 CFR 1926.62. Establish an initial lead work area for each material to be disturbed and each disturbance procedure if required. Isolate these lead work areas from the rest of the building. Personnel working in these areas shall wear respiratory protection and personal protective equipment as directed by the IH. Perform personal and work area air monitoring as directed by the IH. Operational decontamination facilities shall be available. Work performed shall be representative of the work to be done during the remainder of the project.
- B. Respirator Evaluation: Upgrading, downgrading, or not requiring respirators shall be recommended by the Contractor's IH based on the measured airborne lead-containing dust or fume concentrations. Immediately implement recommendations to upgrade the respiratory protection, followed by notification to the Owner. NOTE: Submit recommendations in writing to downgrade respirator type or not require respirators to the Owner for review and written approval prior to implementation.
- C. Decontamination Procedures: Worker and material decontamination procedures shall be as described in the Contractor's approved work plan. Worker decontamination shall be as directed by the Contractor's competent person.

- D. Work Stoppage: Stop work if the IH, the Owner, or a representative of a regulatory agency determines that the work is not in compliance with the Contractor's approved work plan, these specifications, or applicable laws and regulations. The Contractor shall stop work and notify the Owner whenever the measured concentrations of lead outside the lead control area equal or exceed $30 \mu\text{g}/\text{m}^3$ for airborne lead or $200 \mu\text{g}/\text{ft}^2$ for lead dust on surfaces that would normally be accessible by building occupants. When such work stoppage occurs, the cause of the contamination shall be corrected and the damaged or contaminated area shall be restored to its original decontaminated condition by the Contractor at no expense to the Owner. The Contractor is responsible for removing dusts and debris that were generated as a result of their work.
- E. The Contractor shall adhere to all applicable regulations regarding entry into confined spaces.

3.03 LEAD DISTURBANCE AND REMOVAL PROCEDURES:

- A. General: Perform lead disturbance or removal work in accordance with the Contractor's approved work plan, applicable regulations and this specification.
- B. Pre-Cleaning: Removal of existing loose paint chips is included in the scope of work. Pre-clean surfaces by HEPA vacuum and wet washing/wiping prior to the establishment of a work area.
- C. Perform waste battery storage and disposal in accordance with 40 CFR 261, 40 CFR 264, 40 CFR 265, 40 CFR 273 and 8 AAC.

3.04 MONITORING AND TESTING: Conduct daily sampling in accordance with the Contractor's accepted Sampling and Analysis Plan and this specification. The Owner may conduct air monitoring in the Contractor's work areas and on the Contractor's employees.

- A. Perform environmental air monitoring outside the lead work area for each lead work area without a negative initial determination. Take a minimum of two lead-in-air samples inside the work area, and two lead-in-air samples in adjacent areas.
- B. Perform dust wipe sampling for each lead work area without a negative initial determination. Include at least one sample immediately outside the entrance to the work area daily.
- C. Take personnel samples in accordance with 29 CFR 1926.62. Personal samples for an employee will include a minimum of two samples per 8 hour shift. Employees will be monitored at the rate of at least one employee for every eight people performing each task in each work area. Persons performing separate tasks or in separate lead work areas shall be sampled separately.
- D. Reduction of monitoring: For each operation for which the Negative Initial Determination established workers' exposure will be below the action level, the Contractor's IH may petition the Owner's Representative to recommend that the monitoring as required above be reduced for the specific task or operation. Daily environmental and dust sampling may not be discontinued following a Negative Initial Determination.

3.05 DISPOSAL

- A. Sampling of Waste Materials: The Contractor shall test waste materials according to 40 CFR 261 and the disposal site's permit to determine if they are hazardous waste and to dispose of them accordingly. Collect, package and transport to an EPA approved Hazardous Waste Disposal Site all bulk debris, loose paint chips, fines, dust from HEPA filters and vacuum bags, unfiltered waste water, water filter cartridges, disposable personal protective equipment (including respirator filters, poly, and tape) which do not have TCLP test results that classify the material as non-hazardous for lead (containing less than 5.0 mg/liter or 5.0 ppm of lead). Lead-acid batteries and other batteries are

classified by the EPA as Universal Wastes. The EPA encourages that all Universal Wastes be recycled in accordance with 40 CFR 273, or in the case of lead-acid batteries, in accordance with 40 CFR 266, subpart G.

- B. Hazardous Waste Disposal: Dispose of hazardous project wastes as required by 40 CFR 260 and the Contractor's approved work plan.
 - C. Construction (Non-Hazardous) Waste Disposal: Dispose of solid (non-hazardous) waste in a permitted waste facility, in accordance with applicable federal, state, and local laws and regulations. Burning of waste is prohibited.
 - D. Salvageable Materials: The Contractor may salvage metallic lead, lead-acid batteries and other materials to keep such materials from entering the project waste stream. Sell or transfer salvage with a document of exempt status as provided by 40 CFR 261.
 - E. Waste Storage: Temporarily store solid wastes as described in the approved work plan.
- 3.06 FINAL CLEANING AND VISUAL INSPECTION: Perform a final cleaning and visual inspection of each lead control area prior to release to unprotected workers in accordance with the Contractor's approved work plan. Clean the lead control area by vacuuming with a HEPA filtered vacuum cleaner, wet mopping or wet wiping. Do not dry sweep or use pressurized air to clean up the area. A final visual inspection report shall be provided verifying that all lead disturbance required by the contract has been completed and that all visible dust and debris subject to disturbance by the planned work under this contract have been removed and the area HEPA vacuumed, wet mopped or wet wiped.
- 3.07 WORK AREA CLEARANCE TESTING: Work area clearance testing by the Contractor is not required for interior removal, but a daily visual inspection for debris during building demolition is required, followed by lead in soil testing.
- A. A visual inspection report by the Contractor's IH Technician verifying that all lead disturbance required by the contract has been completed and that all visible dust and debris from work under this contract have been removed and the area HEPA vacuumed. Visual inspections of the soils of the site shall be conducted at the end of every shift during building demolition to verify that no visible building debris is present in the soils.
 - B. Lead soil sample at 50 foot intervals around the building perimeter are required, per the Contractor's approved work plan and in accordance with NIOSH method 9100. Clearance levels shall be 200 ppm in soil.
 - C. The Owner may conduct concurrent clearance testing.
 - D. Work area barriers or containments shall not be removed until visual inspection reports are reviewed and approved by the Owner.
- 3.08 SUBSTANTIAL COMPLETION
- A. After the work area barriers and temporary construction and equipment have been removed, the Contractor shall inspect the work area to verify that no lead debris, contaminated water, or other residue remains. Any remaining residue shall be cleaned up using HEPA vacuum cleaners and wet wiping methods.
 - B. The Contractor shall certify that the work area has been cleaned of all lead in compliance with the contract.
 - C. A visual inspection of the soils of the site is required at the end of each work shift during building demolition, and submitted for approval. No visible building debris is allowed to be in the soil after demolition.
 - D. Costs of restoration of damaged finishes or adjacent remaining items, such as roads or sidewalks shall be borne by the Contractor.

REMOVAL AND DISPOSAL OF MATERIALS CONTAINING LEAD

Division 2

Section 02 83 33

END OF SECTION

REMOVAL AND DISPOSAL OF CHEMICAL HAZARDS

PART 1. GENERAL

1.01 DESCRIPTION OF WORK: The work includes proper removal and disposal of electrical equipment and chemical hazards related to the Ursa Major Elementary School Replacement Project as shown on the drawings and as specified herein. Items to be removed or disturbed may include, but are not limited to:

- A. Mercury and mercury compounds in electrical equipment and light fixtures, switches, etc.
- B. Mercury containing rubber flooring in the 1997 Gymnasium. The poured rubber gymnasium flooring materials were tested in accordance with TCLP test requirements and because the flooring materials exceeds RCRA standard of 0.2 mg/l, the materials must be disposed as hazardous waste. Because there are no hazardous waste landfills in the state of Alaska, this means the waste must be shipped to the lower 48. Refer to Section 02 26 00, Hazardous Materials Assessment for additional information on the sampling and analysis of these floors. NOTE: Grinding or other cleaning of the concrete substrate will be required to remove rubber flooring materials from cracks, pits, or other surface defects. All visible rubber flooring or remnants shall be removed from the concrete substrate IF the concrete substrate is to be disposed of as "clean".
- C. PCB containing ballasts and light fixture components contaminated with PCB-containing oil.
- D. Electrical equipment and building components containing or contaminated with PCB-containing oil. Note: Where the ballasts have previously been replaced, fixtures and all components may be contaminated with PCB-Containing Oils, and shall either be decontaminated or disposed of as PCB contaminated equipment.
- E. Building materials with measurable amounts of PCB's present, that are classified by the EPA as PCB Bulk Product Waste (more than 50 ppm PCB's) and materials that have measurable amounts of PCB's present, but which have less than the 50 ppm threshold have been identified in the building. Current Alaska Department of Environmental Conservation requirements do not allow the disposal of Bulk Products with measurable concentrations of PCBs. EPA regulations allow PCB Bulk Product Wastes to be disposed of at municipal or non-municipal non-hazardous waste landfill because the PCBs in bulk products are not likely to leach out of the solid material, but some landfills may not accept materials that contain PCB's. The sampling summarized in Section 02 26 00, Hazardous Materials Assessment was not exhaustive, and for bidding purposes, all waste streams from all eras of the building are assumed to have detectable quantities of PCB's, except for the Boiler/Generator building built in 2003. The Contractor is encouraged to sample building materials, especially from the 1997 or later eras of construction to minimize the volume of wastes that will need to be shipped to the Lower 48 for disposal. The contractor shall coordinate disposal of waste materials with their chosen landfill to determine if the landfill will accept the waste stream(s) from this project.
- F. Heat transfer fluids.
- G. Hydraulic fluids and components of hydraulic elevator.
- H. Radioactive components in smoke detectors and self-illuminating exit signs.
- I. Stored common household chemicals, including construction materials, water treatment chlorine, paint thinners, fuels, new and used lubrication products. Contractor to coordinate, characterize and quantify stored materials required to be removed.
- J. Ozone Depleting Substances (ODS) in refrigeration equipment.
- K. Universal Waste batteries for exit and emergency lights, and other equipment.

- L. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.
- M. Coordinate work with utility companies, and provide temporary utilities if site utilities will be disconnected prior to, or during the building demolition.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01 35 45 Airborne Contaminant Control
- B. Section 02 26 00 Hazardous Materials Assessment
- C. Section 02 82 33 Removal and Disposal of Asbestos Containing Materials
- D. Section 02 83 33 Removal and Disposal of Materials Containing Lead

1.03 DEFINITIONS AND ABBREVIATIONS: Definitions and abbreviations are provided in the applicable publications listed in Paragraph 1.04 of this Section.

1.04 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced.

- A. General Requirements: All work shall be performed in compliance with the International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code; Uniform Plumbing Code; the National Electrical Code; and the publications listed in this section that are in effect at the time of the bidding of this contract.
- B. Title 10 Code of Federal Regulations (CFR), Nuclear Regulatory Commission
Part 20 Standard for Protection Against Radiation
- C. Title 29 CFR, Department of Labor (USDOL)
Part 1910 General Occupational Safety and Health
Standards Part 1926 Safety and Health Regulations for Construction
- D. Title 40 CFR, Environmental Protection Agency (EPA)
Part 61 National Emission Standards for Hazardous Air Pollutants
Part 260 Hazardous Waste Management System: General
Part 261 Identification and Listing of Hazardous Waste
Part 262 Standards Applicable to Generators of Hazardous Waste
Part 263 Standards Applicable to Transporters of Hazardous Waste
Part 270 The Hazardous Waste Permit Program
Part 273 Standards for Universal Waste Management
Part 311 Worker Protection
Part 761 Polychlorinated Biphenyls (PCBs)
- E. Title 49 CFR, Department of Transportation (DOT)
Part 171 General Information, Regulations and Definitions

- Part 172 Hazardous Materials Communication and Regulations
- Part 173 General Requirements for Shipments and Packaging
- Part 177 Carriage by Public Highway
- Part 178 Specifications for Packagings
- Part 382 Requirements for Drug Testing
- Part 383 Commercial Driver's License Standards
- F. State of Alaska Administrative Codes (AAC)
 - 8 AAC 61 Occupational Safety and Health Standards
 - 18 AAC 60 Solid Waste Management
 - 18 AAC 62 Hazardous Wastes
 - 18 AAC 75 Oil and Hazardous Substances Pollution Control
- G. State of Alaska Statutes (AS)
 - AS 45.50.477 Titles Relating to Industrial Hygiene
- H. Federal Standards
 - 313E Safety Data Sheets
- I. American National Standard Institute (ANSI)
 - Z9.2 Local Exhaust Systems
 - Z87.1 Eye and Face Protection
 - Z88.2 Practices for Respiratory Protection
 - C78.LL 1256 Procedures for Fluorescent Lamp Sample Preparation and Toxicity Characteristic Leaching Procedure.
- J. American Society for Testing and Materials (ASTM)
 - D-4397 Polyethylene Sheeting
- K. International Code Council
 - International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code Current IC Standards
- L. National Fire Protection Association (NFPA)
 - NFPA 701 Fire Tests for Flame Resistant Textiles and Films
- M. National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods, Current Edition
- 1.05 QUALITY ASSURANCE
 - A. On-site Observation:
 - 1. The safety and protection of the Contractor's employees, sub-contractor's employees, Owner's employees, the facility, and the public is the sole responsibility of the Contractor.
 - 2. The Owner, the Owner's Representative, or representatives of State or Federal agencies may make unannounced visits to the site during the work. The contractor shall make available two complete sets of clean protective clothing for such visitor use. If the work requires the use of PAPR or Supplied Air Respirators, the contractor shall provide respirators to the visitor to ensure compatibility with fresh

batteries or supplied air system. It is the visitor's responsibility to ensure medical qualification, training, and current "fit test" prior to using any respirator provided by the Contractor.

3. If the Owner or agency visitor determines that practices are in violation of applicable regulations, they will immediately notify the Contractor that operations must cease until corrective action is taken. Such notification will be followed by formal confirmation.
4. The Contractor shall stop work after receiving such notification. The work may not be restarted until the Contractor receives written authorization from the Owner.
5. All costs resulting from such a stop work order shall be borne by the Contractor and shall not be a basis for an increase in the contract amount or an extension of time.

B. Monitoring and Testing: Monitoring and testing during the work shall be performed as follows:

1. The Contractor shall hire Independent Testing Laboratories to collect and evaluate all air, bulk, and toxicity characteristic leaching procedure (TCLP) samples, (including PCB testing of building wastes) which are the responsibility of the Contractor. The Contractor shall direct its laboratories, in writing, to release monitoring and testing data, and all other pertinent data and records, to the Owner.
2. The Contractor shall be responsible for monitoring its employees for potential exposure to airborne contaminants as required by specification 01 35 45 and all applicable regulations.
3. The Contractor shall be responsible for work area monitoring and environmental monitoring outside the work area as required by this specification. All sampling by the Contractor shall be at their own cost.
4. The Owner may perform monitoring and testing inside the building, inside the work areas, and on the Contractor's employees while work is underway and at any time during the work.
5. The Contractor shall have its Independent Testing Laboratories archive all samples until the successful completion of the project.
6. Final inspection and clearance testing shall be conducted by the Contractor.

1.06 PROTECTION OF EXISTING WORK TO REMAIN: Perform hazardous material removal work without damage or contamination of adjacent work or the site.

1.07 MEDICAL REQUIREMENTS

- A. Institute and maintain a medical surveillance program in accordance with 29 CFR 1910.134.
- B. Institute and maintain a random drug testing program, as required by 49 CFR 382, for all drivers of vehicles transporting hazardous materials.

1.08 TRAINING: Employ only workers who are trained and certified as required by 29 CFR 1910, 29 CFR 1926, 40 CFR 311, and 49 CFR 383 to remove, encapsulate, barricade, transport, or dispose of hazardous materials.

1.09 PERMITS AND NOTIFICATIONS: Secure necessary permits for hazardous material removal, storage, transport and disposal and provide timely notification as required by federal, state, and local authorities.

1.10 SAFETY AND ENVIRONMENTAL COMPLIANCE: Comply with laws, ordinances, rules, and regulations of federal, state, and local authorities regarding handling, storing, transporting, and disposing of hazardous materials and all other construction activities.

1.11 RESPIRATOR PROGRAM: Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134.

1.12 HAZARD COMMUNICATION PROGRAM: Implement a hazard communication program in accordance with 29 CFR 1910.1200.

1.13 SUBMITTALS

- A. Approval: Submit the following documentation to the Owner for review, approval, or rejection. Work shall not begin until submittals are approved.
 - 1. Shop drawings.
 - 2. Hazardous material removal work plan.
 - 3. Liability insurance policy and performance bond.
 - 4. Schedule.
 - 5. Independent testing laboratories.
 - 6. Disposal site designations.
 - 7. Waste Transporter Designations.
 - 8. Notifications and certifications.
 - 9. Competent Person Designation Notifications and Certifications.
 - 10. Request for Substitutions.
- B. Shop drawings shall show:
 - 1. Boundaries of all hazardous material removal areas.
 - 2. Location and construction of decontamination stations, if required.
 - 3. Location of temporary site storage facilities.
 - 4. Location of air monitoring stations, if required.
 - 5. Emergency egress route(s).
- C. The work plan shall include procedures for:
 - 1. Work area set-up and protection.
 - 2. Worker protection and decontamination.
 - 3. PCB sampling and segregation procedures.
 - 4. PCB removal and disposal procedures.
 - 5. Mercury-containing lamp removal and packaging procedures.
 - 6. Mercury-containing material removal procedures.
 - 7. Monitoring and testing procedures (Sampling and Analysis Plan).
 - 8. Radioactive materials removal and tracking procedures.
 - 9. Waste handling, packaging, labeling, manifesting and disposal procedures.
- D. Insurance Policy and Performance Bond: Submit copies of the Contractor's or Subcontractor's insurance policy and performance bond. Submittal requirement is only to ensure that the insurance certificate(s) show specific coverage for the potentially hazardous materials being handled by this project. The insurance and bond amounts and certificate holder requirements are addressed in other portions of the contract documents and are not covered as part of this submittal requirement.
- E. Schedule: Submit construction schedule by work area.
- F. Independent Testing Laboratories and Laboratory Personnel: Submit the name, location, and phone number of proposed independent testing laboratories, and the names and certifications of industrial hygiene technicians. Include the laboratory's accreditation. Not all laboratories will require all accreditations.
 - 1. The Independent Testing Laboratories shall be acceptable to the Owner.
 - 2. Evidence that a laboratory has demonstrated proficiency in performing analyses according to Method 1311 TCLP, and Method 8082A (PCB's) corresponding to the current version of Test Methods for Evaluating Solid Wastes (Chemical Physical Methods), SW-846. Evidence may include successful participation in a recognized inter-laboratory quality control program such as a laboratory certified by the California Health and Welfare Agency, Department of Health Services, or a more

- informal inter-laboratory quality control program.
 3. Submit the name, address, telephone number, and résumé of the Industrial Hygienist (IH) who prepared the Sampling and Analysis Plan and will oversee the on-site monitoring. Submit the names, addresses, and résumés of industrial hygiene technicians who may assist the IH for on-site tasks. The Contractor shall submit documentation that the IH has all the qualifications for the assigned duties as required by the Contractor's liability insurance policy.
 4. Submit copies of the Contractor's letters to the independent testing laboratories, directing each to release all the results for this project to the Owner, as these results become available and as specified herein.
- G. Disposal Site: Submit the name and location of the proposed Alaska Department of Environmental Conservation (DEC) or U.S. Environmental Protection Agency (EPA) permitted disposal sites.
- H. Waste Transporter: Submit the name, address and EPA Hazardous Waste Transporter identification number for the proposed waste transporters.
- I. Certifications, Permits, and Notifications: Obtain and submit copies of EPA Hazardous Waste Generator identification number for the purpose of accumulating hazardous waste in accordance with 40 CFR 262. Submit copies of refrigerant recovery technician's EPA certification and company name when refrigeration systems are being demolished or deactivated. If the site does not have an EPA ID number for hazardous wastes, the contractor will need to assist the Owner in obtaining the EPA ID number, but the Owner will be available to sign the application documents and shipment records prepared by the contractor.
- J. Representations: Submit statement by the Contractor that records of employees' work assignments, certifications, respirator fit tests, and medical records are accurate, up-to-date, and available for inspection.
- K. Competent Person: Submit the name and certifications of the Contractor's proposed Competent Person and a list of their previous projects. Certify that the Competent Person has the knowledge and training to supervise the work in compliance with the publications listed in Paragraph 1.04 above.
- L. Substitutions: Submit requests for substitutions of materials, equipment and methods.
- M. Updated Project Information: Submit changes to the submitted project information at least 24 hours prior to the effective time of change for the following:
1. Updated schedules for hazardous material removal.
 2. Change in competent person.
 3. Changes to work plan.
- 1.14 TEST REPORTS: Submit the following documentation produced during the work as received:
- A. Project Daily Logs: Submit the previous day's Daily Logs. Logs shall include regulated area sign-in sheets and list of chemical hazards removed including quantities and locations of those materials, in the units used on the drawings. Claims for additional quantities will not be addressed unless daily quantities are submitted.
 - B. Monitoring and testing data sheets and laboratory reports.
- 1.15 PROJECT COMPLIANCE DOCUMENTS: Submit the following documents with the application for final payment.
- A. Daily sign-in sheets.
 - B. Contractor's actual "start and finish" project dates.
 - C. All hazardous waste shipping manifests.

- D. Disposal site receipts, including manufacturer name and serial numbers from each radioactive exit sign (if removed).
 - E. All final laboratory results, and field data sheets, sample locations, etc..
 - F. Submit legible copies of each Worker's Hazardous Waste Operations and Emergency Response (HAZWOPR) cards and/or a copy of the refresher training certificate to show that all workers have received their initial training or an eight-hour refresher course within the past year.
- 1.16 SANITARY FACILITIES: Provide adequate toilet and hygiene facilities.
- 1.17 MATERIAL STORAGE: Store all materials subject to damage off the ground and secure from damage, weather, or vandalism.
- 1.18 ON-SITE DOCUMENTATION: The Contractor shall maintain on the job site, at a location approved by the owner, copies of the following data for safety procedures, equipment, and supplies used for the work.
- A. Equipment: Show the model, style, operations, and maintenance for the following, as applicable:
 - 1. Respirators, PAPR and canister types.
 - 2. Decontamination facilities.
 - 3. Specialized hazards handling equipment.
 - B. Expendable supplies: Maintain the manufacturer's safety data, and use the data for the following supplies:
 - 1. Coveralls and headgear.
 - 2. Boots, aprons, and gloves.
 - 3. Disposal containers.
 - 4. Solvents and degreasers.
 - C. Safety Data Sheets (SDS): Maintain SDSs for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.
 - D. Respirator Program: The Contractor's written respirator program.

PART 2. PRODUCTS

- 2.01 PERSONAL PROTECTIVE EQUIPMENT: Provide personal protective clothing as approved and selected by the IH.
- A. Respirators: Provide personally issued and marked respirators approved by the National Institute of Occupational Safety and Health (NIOSH). Provide sufficient replacements for respirators with disposable canisters.
 - B. Provide filter cartridges approved for each airborne contaminant which may be present. NIOSH approved filter cartridges shall be used. At no time shall the permissible exposure limit (PEL) for the contaminant exceed the PEL listed in 8 AAC 61.1100.
 - C. Whole Body Protection: Provide approved aprons, gloves, goggles, face shields, and hard-hats, and other protective clothing as required to meet applicable safety regulations to all workers engaged in hazardous materials removal. Full facepiece respirators shall meet the requirements of ANSI Z87.1.
 - D. Provide protective personal equipment and clothing at no cost to the workers.
- 2.02 DECONTAMINATION UNIT: Provide a decontamination station in accordance with the Contractor's accepted work plan and applicable regulations.
- 2.03 WARNING SIGNS AND TAPE: Post warning signs and tape at the boundaries and entrances to chemical hazards removal areas. Signs required by other statutes, regulations, or ordinances may

be posted in addition to, or in combination with, this warning sign.

- 2.04 WARNING LABELS: Affix warning labels to all hazardous waste disposal containers as described in the Contractor's approved Solid Waste Disposal Plan. Conform labeling to 49 CFR 100-199.
- 2.05 SPECIALIZED EQUIPMENT: Lamp crushers and other specialized equipment to consolidate, reduce or treat hazardous materials are classified as RCRA treatment and the EPA specifically prohibits the use of Drum Top Crushers for management of fluorescent lamps as universal waste unless an equivalency determination is made by the state.
- 2.06 EXPENDABLE SUPPLIES: Provide flame resistant 6-mil thick polyethylene sheet plastic in widths necessary to minimize seams.
- 2.07 SAFETY DATA SHEETS (SDSs): Provide SDSs for all chemical materials brought onto the work-site.
- 2.08 OTHER ITEMS: Provide other items, such as consumable materials, disposable and/or reusable cleaning equipment and hand tools, or miscellaneous construction equipment and materials, in sufficient quantity as necessary to fulfill and complete the requirements of the contract. Electrical equipment and supplies shall be UL listed.
- 2.09 ENCAPSULANTS: Encapsulants shall contain no toxic or hazardous substances. Encapsulants shall be compatible with the products to which they are applied and be compatible with any replacement products.

PART 3 EXECUTION

3.01 WORK AREAS

- A. Electrical Power: Verify that the electrical power to the equipment being removed is deactivated, disconnected, and locked-out.
- B. Loaded Disposal Drums: The Contractor shall provide handling equipment to move disposal drums loaded with hazardous wastes.

3.02 PERSONNEL PROTECTION PROCEDURES

- A. All personnel entering the work area shall sign the daily log and put on clean protective clothing.
- B. Basic protective clothing shall consist of aprons, gloves, goggles, face shields, and hard hats -- with the addition of approved full body coveralls, bib-type aprons, and respirators as conditions warrant.
- C. Make available a contaminated material disposal drum, 6-mil. plastic wrapping and tape, or appropriate bagging materials for leaking ballasts and/or oil-contaminated components.
- D. Decontamination Procedures: All personnel handling or removing hazardous materials will comply with the decontamination procedures as described in the approved work plan.

3.03 HAZARDOUS MATERIAL REMOVAL PROCEDURES: Conduct hazardous materials removal, handling, packaging, storage, transport and disposal in accordance with the Contractor's approved work plan, applicable regulations, and this specification.

- A. Perform PCB related work in accordance with 40 CFR 761, 8 AAC 61, 18 AAC 60 and 18 AAC 62.
- B. Perform mercury-containing lamps work in accordance with 40 CFR 261, 40 CFR 264, 40 CFR 265, 40 CFR 273 and 8 AAC.
- C. Perform mercury-containing flooring work in accordance with 40 CFR 261, 40 CFR 264, 40 CFR 265 and 8 AAC.
- D. Perform waste battery work in accordance with 40 CFR 261, 40 CFR 264, 40 CFR 265, 40

CFR 273 and 8 AAC.

- E. Perform radioactive smoke detector and exit sign work in accordance with 10 CFR 20, 8 AAC 61, 18 AAC 60 and 18 AAC 62.
- F. Perform ozone depleting substances work in accordance with 40 CFR 82, 8 AAC 61, 18 AAC 60, and 18 AAC 62.
- G. Perform hydraulic fluid work in accordance with 40 CFR 260, 40 CFR 261, 18 AAC 62, etc..
- H. Perform heat transfer fluid work in accordance with 40 CFR 261, 40 CFR 264, 40 CFR 265, 40 CFR 273 and 8 AAC.

3.04 MONITORING AND TESTING: Conduct daily sampling in accordance with the Contractor's accepted Sampling and Analysis Plan and this Specification. The Owner may conduct air monitoring in the Contractor's work areas and on the Contractor's employees.

- A. Personal, work area, and environmental monitoring for airborne contaminants shall be performed by industrial hygiene technicians who are employees of (one of) the Contractor's Independent Testing Laboratories.
- B. Perform air monitoring in accordance with 29 CFR 1926, current EPA guidance, and as specified herein. Calibrate all sampling pumps on-site with a calibrated transfer standard before and after each sample. Built-in rotameters on pumps are not acceptable for calibration.
- C. Monitor for all airborne contaminants listed in 29 CFR 1926.55 and 8 AAC 61.1100, which are produced by the Contractor's operations.
- D. Perform testing of substrates to remain that are adjacent to PCB Building Material Wastes and determine if substrate removal will be required to reduce the concentration of PCB's within the substrate to below 10 µg/100cm².
- E. Contractor shall test waste materials as required by 40 CFR 261, the disposal site's permit, and it's approved work plan. If performed, TCLP testing of fluorescent lamps shall comply with ANSI/NEMA Standard Procedure for Fluorescent Lamp Sample Preparation and Toxicity Characteristic Leaching Procedure, C78.LL 1256-2003 or latest version.
- F. All mercury monitoring shall be performed by fully trained industrial hygiene technicians, who may be employees of the abatement firm. Mercury sampling for worker exposure shall be conducted in compliance with all directions of the direct reading instrument.
- G. Mercury air monitoring during the flooring removal work shall be conducted by direct reading mercury vapor analyzer. Mercury vapor readings shall be taken daily in the breathing zone of at least 1/3 of the work force, a minimum of 4 times per 8 hour day of work. For each monitoring data point, the monitoring technician shall hold the intake of the analyzer within 9 inches of the workers mouth, for a minimum of 2 minutes, and write down, or data-log the average results over that 2 minute period. Area monitoring within the work area shall also be taken a minimum of 4 times per 8 hour day of work, utilizing the same 2 minute averages at 4 areas within the work area, including 1 within 4 feet of the intake of each of the negative air pressure exhaust fans. The Contractor shall conduct general surveillance outside the perimeter of the work area to assess visible dust and mercury vapor emissions. Environmental monitoring outside the perimeter of the work area shall also be taken a minimum of 4 times per 8 hour day of work, utilizing the same 2 minute averages and include the following: on the occupied side of each entrance to the work area, and at 3 other rooms adjacent to the work area, and within 4 feet of the exhaust of each exhaust fan. Upon detection of visible or vapor emissions above 20,000 ng/m³ inside the work area, or 500 ng/m³ outside of the work area, the Contractor shall immediately stop all work and initiate engineering and work practice controls as required to ensure that visible or vapor emissions from the work area will not reoccur upon resumption of the Work.

"Visible or vapor emissions" shall be deemed to mean any emission of any capacity occurring for any duration as determined by direct reading measurements or solely by the Owner's observation. If concentrations exceed 5,000 ng/m³ at the exhaust of the negative air pressure fans, that indicates breakthrough of the mercury specific filters, and the Contractor shall immediately change out the filters with new filters specifically for that piece of equipment. Submit daily logs showing all mercury vapor readings daily within 24 hours of the conclusion of the work shift.

3.05 INITIAL MERCURY FLOOR VISUAL INSPECTION AND WORK AREA CLEARANCE

- A. Initial visual inspections and mercury vapor clearance sampling will be conducted in the work area by the Contractor, with a follow-up initial visual inspection and mercury vapor monitoring by the Owner, or Owner's representative. If any portion of the work area fails the visual inspection or clearance standards, it is the responsibility of the contractor to re-clean failed areas at the Contractor's expense. Additional sampling due to failed clearance sampling shall be conducted by the Owner at the Contractor's expense.
- B. The visual inspection criteria shall be as follows:
- C. No rubber flooring shall remain under perimeter walls;
- D. No rubber flooring shall remain in control joints or other imperfections in the concrete slab.
- E. Cracks which formed during earthquakes or after the original installation of the mercury floor should not have adhered rubber flooring, and all visible rubber flooring (debris) shall be removed from those cracks.
- F. Initial air sampling by the Contractor with the direct reading mercury vapor analyzer shall be performed with the Negative Air Pressure exhaust fans operational, air temperature within the containment shall be maintained above a minimum of 68 degrees and less than 72 degrees Fahrenheit during sampling.
- G. Air testing shall be collected at approximately 20 foot intervals at both 1 foot and 5 feet above the floor surface. Initial mercury vapor clearance criteria shall be 200 ng/m³ with the exhaust fans operational.
- H. Upon receipt of clearance results, submit to Owner all final visual inspection forms, IH Tech field logs, field data sheets (if any) for all sampling, final laboratory results (if any) for all sampling, and other documentation created during the course of the inspection and sampling, such as temperature recordings, or other observations and measurements made by the IH Tech.
- I. Following the initial visual inspection and passing air monitoring by the contractor, all ventilation to the work area shall be shut off for no less than 24 hours prior to final inspection and monitoring by the Contractor. The same air temperature and visual inspection criteria will be followed, and the mercury vapor clearance criteria shall be 500 ng/m³ with the exhaust fans off.
- J. As part of the visual examination, the Owner or Owner's Representative may also attend to ensure that settled dust or debris is not present on any surface in the work area. If such conditions are observed, the contractor shall repeat cleaning as outlined herein, followed by a second visual inspection and repeat clearance sampling at no additional cost to the Owner.
- K. Other types of sampling may be performed by the IH Tech at their discretion and at no additional cost to the Owner. Owner approval is required prior to use of additional test methods.

3.06 DISPOSAL

- A. Dispose of hazardous wastes in an EPA permitted hazardous waste disposal site as

required by 40 CFR 260, 40 CFR 261, 40 CFR 761 and other applicable regulations, the Contractor's approved plan, and the disposal site operator(s).

- B. Comply with current waste disposal, handling, labeling, storage, and transportation requirements of the waste disposal facility, U.S. Department of Transportation, and EPA regulations.
- C. Dispose of PCB Containing ballasts and/or other PCB Equipment in accordance with 40 CFR 761.
- D. Coordinate requirements of the chosen waste disposal facilities related to PCB Bulk Product Waste, and wastes that may contain PCB's, but are not classified by the EPA as PCB Bulk Product Waste. Under 40 CFR 761.62 any person disposing of PCB bulk product waste in a waste management facility that does not have a commercial PCB storage or disposal approval must provide written notice to the facility a minimum of 15 days in advance of the first shipment. Content of the required notice is specified in 40 CFR 761.62.
- E. Fluorescent, mercury vapor, metal halide and high pressure sodium lamps are classified by the EPA as hazardous mercury waste under the Universal Waste Rule under 40 CFR 273. Mercury and mercury-containing products are considered hazardous waste unless TCLP testing of the waste for mercury confirms the mercury content to be less than the EPA criteria of 0.2 mg/l. If mercury-containing lamps and thermostats are handled and disposed of in accordance with the Universal Waste Regulations, no TCLP test is required. If the Contractor chooses to perform a TCLP test of fluorescent lamps, the test shall be conducted in accordance with the requirements of ANSI/NEMA Standard Procedure for Fluorescent Lamp Sample Preparation and Toxicity Characteristic Leaching Procedure, C78.LL 1256-2003 or latest version.
- F. The rubber flooring of the 1997 gymnasium is classified by the EPA as hazardous mercury waste under 40 CFR 261.
- G. Dispose or recycle universal waste batteries as required by 40 CFR 273, the Contractor's approved plan, and the disposal/recycling site operator.
- H. Dispose of radioactive materials and equipment in accordance with the manufacturer's recommendations, the disposal site's requirements and 10 CFR 20, Subpart K. Provide list of manufacturer name and serial numbers for all removed radioactive exit signs to owner.
- I. Refrigerants in refrigeration and cooling systems in the building contain ODS components that must be recovered and recycled or disposed of in accordance with 40 CFR 82. Personnel decommissioning or removing ODS refrigerants shall hold appropriate EPA training and certificate for handling and recovering these materials.
- J. Drain and recover all hydraulic fluids from hydraulic elevator, clean and dispose of or recycle fluids in accordance with 40 CFR 261.
- K. Waste heat transfer fluids (such as used heating/cooling system glycol or other circulating heating/cooling fluids) are a potentially hazardous waste and shall be drained and collected in appropriate waste containers for recycling or disposal. Fluids shall be TCLP tested prior to disposal to determine if the fluids are classified as hazardous or non-hazardous waste per the EPA's RCRA regulations governing hazardous wastes. Fluids that failed the TCLP test shall be packaged for disposal as hazardous waste.

3.07 CLEANING OF WORK AREA

- A. Remove all hazardous materials and debris within a work area. Wet clean all work area surfaces.
- B. Notify the Owner that hazardous materials removal has been completed and the work area is ready for visual inspection. Include a statement that all hazardous materials and debris in the work area have been removed as required by the contract.

REMOVAL AND DISPOSAL OF CHEMICAL HAZARDS

Division 2

Section 02 84 18

- C. A visual inspection of the soils of the site is required at the end of each work shift during building demolition, and submitted for approval. No visible building debris is allowed to be in the soil after demolition.

END OF SECTION

**Disadvantaged Business Enterprise Program (DBE)
Program Specifications for District Contracts**

This project is a Federally funded contract and, is subject to any applicable federal and state regulations. Bidders/proposers shall be fully informed regarding the requirements of the regulations, statutes, and code regarding the Disadvantaged Business Enterprise Program (DBE).

A bidder/proposer who is determined not in compliance with the requirements of the applicable regulations and code, or these specifications will not be awarded this contract. Noncompliance after award of the contract constitutes a breach of the contract and may result in termination of the contract or other appropriate remedy for such breach.

Part I. Disadvantaged Business Enterprise Program Goals and Six Affirmative Steps.

All bidders/proposers shall solicit subcontractor or supplier bids/offers prior to bid/proposal opening for this project. The bidder/proposer acknowledges that post-bid/proposal opening of solicitations do not qualify for meeting Fair Share objectives or the Six Affirmative Steps.

- A. All bidders/proposers on this project **shall** carry out the required Six Affirmative Steps, listed as items 1 through 6 below:
 - 1. Include qualified small, minority, women's business enterprises, and labor surplus area firms on solicitation lists.
 - 2. Assure that small, minority, women's business enterprises, and labor surplus area firms are solicited. If the MBE/WBE is only certified as a Disadvantaged Business Enterprise (DBE), such as through the Small Business Administration (SBA), Alaska District Office; and the Alaska Department of Transportation and Public Facilities (DOT&PF), Civil Rights Office, and the bidder has exhausted all efforts to determine the subcontractor MBE/WBE status, the bidder may document either category of certification to meet the good faith efforts.
 - 3. Divide total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, women's business enterprises, and labor surplus area firms.
 - 4. Establish delivery schedules, where requirements of the work permit, which will encourage participation by small, minority, women's business enterprises, and labor surplus area firms.
 - 5. Use the services and assistance of the U.S. Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce, as appropriate.
 - 6. If the prime contractor or proposer awards subcontracts/procurements, require the subcontractor to take the affirmative steps 1 through 5 above.
 - 7. Exception: As prime consultant/contractor, certify that they have reviewed the contract requirements and found no available subcontracting opportunities; and certify that they will fulfill 100 percent of the contract requirements with their own employees and resources.
- B. The District will presume a lack of six affirmative steps to satisfy MBE, WBE and LSAF requirements if the bidder/proposer rejects any bids/offers from MBEs, WBEs and/or LSAF's, which are as low, or lower, than other competitor's bids/offers. The bidder/proposer that rejects an as-low or lower bid/offer from an MBE, WBE or LSAF may submit proof to rebut this presumption.
- C. If a prime contractor is an MBE, WBE or LSAF, such prime also must carry out the Six Affirmative Steps to award any subcontracts or procurements on this project.

- D. Record keeping requirements. The prime contractor must retain all records documenting their Six Affirmative Step for audit purposes and provide copies of these to the District DBE Officer upon request.

Apparent successful bidders/proposers, who fail to demonstrate completion of the required Six Affirmative Steps, will not be awarded this contract.

Part II: Certified Minority (MBE) and Women's (WBE) Business Enterprises

- A. MBE/WBE, or a joint-venture with a MBE/WBE, must be currently certified prior to opening of bids/proposals in order to be considered a MBE/WBE enterprise.
- B. Businesses must be certified by the Small Business Administration (SBA), Alaska District Office <https://www.sba.gov/offices/district/ak/anchorage>, Department of Transportation and Public Facilities (DOT), Civil Rights Office <http://www.dot.state.ak.us/cvlrts/directory.shtml>, or by state, local, Tribal or private entities whose certification criteria and who present proof of this will be eligible. Proof may be in the form of a letter from the certifying agency or a current listing in a directory maintained by the certifying agency.
- C. Those companies certified as DBEs by one of the agencies listed in Part II.B above:
1. Whose majority ownership and control is vested in one or more minority individuals;
 2. Whose majority ownership and control is vested in one or more non-minority women;
 3. Whose majority ownership and control is vested in one or more minority individuals, and who are women may be counted toward either the MBE or the WBE, but not to both.

Part III: MBE and WBE Participation

The MBE or WBE must perform work on the project in the category/categories of work for which certification is issued. While the MBE or WBE may perform work in other categories for which certification is not issued, only that work performed in the certified categories.

- A. The MBE or WBE must perform a useful business function according to custom and practice in the industry; i.e., must be responsible for the execution of a distinct element of work and must carry out its responsibilities by actually performing, managing, and supervising the work.
- B. An MBE or WBE that acts merely as a broker or passive conduit of funds, without performing, managing, or supervising the work of its contract or subcontract in a manner consistent with normal business practices.
1. Presumption. If 50% or more of the total dollar amount of MBE or WBE's prime contract is subcontracted to a non-DBE, the MBE or WBE prime contractor will be presumed to be a broker, and no MBE or WBE participation may be reported.
 2. Rebuttal. The MBE or WBE prime contractor may rebut this presumption by demonstrating that its actions are consistent with normal practices for prime contractors in its business and that it will actively perform, manage and supervise the work under this contract.
- C. MBE or WBE trucker/hauler expenditures will be credited towards the contract only if the trucker/hauler is performing a commercially useful function. The following factors should be used in determining whether MBE or WBE trucker/hauler is performing a commercially useful function:

SPECIAL PROVISIONS
Disadvantaged Business Enterprise Program (DBE)

1. The MBE or WBE must be responsible for the management and supervision of the entire trucking/hauling operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting MBE or WBE objectives.
 2. The MBE or WBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
- D. For joint ventures, MBE and WBE participation consists of the portion of the dollar amount of the joint venture attributable to the MBE or WBE. However, where the MBE/WBE's risk of loss, control or management responsibilities are not commensurate with the share of profit.

Part IV: Submission of Minority, Women's Business Enterprises and Labor Surplus Area Firms Information

- A. TO BE SUBMITTED AS PART OF BID/PROPOSAL OR WITHIN THREE (3) WORKING DAYS OF NOTICE FROM THE DISTRICT (ASD):
1. The bidder/proposer for this project shall submit their Contact Documentation (Exhibit 4), a completed and signed Prime Consultant/Contractor Certification (Exhibit 3) with their bid/proposal. If the bidder does not intend to utilize MBE, WBE or LSAF subcontractors, their Prime Consultant/Contractor Certification form must still be signed by bidder and, indicate "NONE TO BE USED". The bidder/proposal shall then be required to show that the mandatory Six Affirmative Steps were taken as set forth in these specifications, which are also included in the Contract Participation Form (Exhibit 2).
 2. Bids/offers submitted without a completed and signed Contract Participation Form, completed and signed Prime Consultant/Contractor Certification Form, and sufficient Contact Documentation will be considered non-responsive, if not submitted with bid/offer or upon three (3) working days upon request, if not submitted with their bid/proposal.
 3. A contract may not be awarded to a bidder/proposer who fails to submit the required supporting documents within the time specified. There shall be no substitutions, deletions, additions, or modifications to this listing subsequent to its submittal to Purchasing.

Part V: MBE/WBE/LSAF Utilization Removal/Substitution

If a successful bidder/proposer for a contract which contains MBE, WBE and/or LSA Firm participation requirements, at any time after award of contract, proposes to remove or make substitutions for MBE, WBE or LSA Firm subcontractors or joint-venture partners under the contract, a written notice of such removal or substitution shall be submitted to the District DBE Officer prior to commencement of performance of the affected work, with the names, addresses and phone numbers of the subcontractors or joint venture partners to be removed or substituted for and an explanation of the reasons for the removal and substitution. The successful bidder shall make good faith efforts as defined in Part I.B to utilize another MBE, WBE or LSA Firm subcontractor as the replacement. These efforts shall be documented and, the circumstances fully explained in writing, and approval obtained from the District DBE Officer prior to such replacement. The District DBE Officer shall, within seven (7) days of receipt of such notice, approve said notice or removal and substitution where it is shown that the requested action is for good cause and not for discriminatory purposes.

Part VI: Other Provisions

The District DBE Officer or his or her designee may visit the job site during regular working hours and interview subcontractors and employees for verification of compliance with these specifications and/or the regulations.

Part VII: Definitions

- A. Minority Business Enterprise (MBE) or Women Owned Business Enterprise (WBE) - means a business concern which is owned and controlled by one or more minorities or women. Owned and controlled means a business:
1. Which is at least 51 percent owned by one or more minorities or women, or in the case of a publicly owned business, at least 51% of the stock is owned by one or more minorities or women;
 2. Whose management and daily business operations are controlled by one or more such individuals.
- B. Minority Individual - means an individual who is a citizen or lawful permanent resident of the United States and who is:
1. Black (a person having origins in any of the black racial groups in Africa);
 2. Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
 3. Portuguese (a person of Portugal, Brazilian, or other Portuguese culture or origin, regardless of race);
 4. Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands);
 5. American Indian and Alaskan Native (a person having origins in any of the original peoples of North America or original peoples of Alaska), and
 6. Members of other groups, or other individuals, found to be economically and socially disadvantaged by the United States Small Business Administration under section 8(1) of the federal Small Business Act.
- C. Labor Surplus Area (LSA) – is defined as a civil jurisdiction (a city of more than 25,000 or a county, borough, or census area) that has a civilian average annual unemployment rate during the previous two (2) calendar years of 20 percent or more above the average annual civilian unemployment rate for all states during the same 24-month reference period. If the national annual average unemployment rate during the referenced period is less than 6.0 percent, then the qualifying rate is 6.0 percent. If the national annual average unemployment rate during the referenced period is above 10 percent, then the qualifying rate is 10 percent. Please reference the US Department of Labor, Employment and Training Administration at <http://www.doleta.gov/lsa>. The list becomes effective each October 1 and remains in effect through the following September 30.
- D. Certification – a copy of a current MBE/WBE certification from any agency to be used for the District's monitoring of MBE/WBE participation in its program.
- E. Joint Venture – a commercial enterprise undertaken by more than one business enterprise jointly, limited in its scope and duration to one project, for the purpose of each enterprises profiting thereby.
- F. Fair Share - is a reasonable amount of funds commensurate with the total project funding, demographic factors and the availability of minority and women's businesses. A fair share does not constitute an absolute requirement, but a commitment on the part of the bidder/proposer to attempt to use minority and women's businesses by carrying out the "Good Faith Efforts".

SPECIAL PROVISIONS
Disadvantaged Business Enterprise Program (DBE)

For more information about these specifications, please contact the District DBE Officer at the Anchorage School District, Purchasing Warehouse, 4919 Van Buren Street, Anchorage, AK 99517; telephone (907) 742-8630.

Part VIII – Equal Opportunity, Minority, Women-Owned Business Enterprise and Labor Surplus Area Firm (MBE/WBE/LSAF) Participation

A. Equal Opportunity

No person or firm shall be discriminated against because of race, color, national origin, or sex in the award of District contracts. Further, the Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract.

B. MBE/WBE Participation

While there are no MBE/WBE/LSAF goals associated with this solicitation, the District is committed to achieving participation in its contracting programs by business enterprises that are owned and operated by minorities, women and labor surplus area firms (MBEs, WBEs and LSAF) regardless of the size of the enterprise. All bidders/offerors are strongly encouraged to take active steps to maximize the participation of MBEs, WBEs and LSAF in this contract.

C. Technical Assistance

The District will provide assistance to promote the participation of MBEs, WBEs and LSAF in this contract, including the identification of MBEs, WBEs and LSAF. To obtain assistance, interested parties are encouraged to contact the District's Purchasing Office at (907) 742-8621.

EXHIBIT 1: SUPPLEMENTAL TERMS AND CONDITIONS

(2 C.F.R. § 200.326 and 2 C.F.R. Part 200, Appendix II, Required Contract Clauses)

The supplemental conditions contained in this section are intended to cooperate with, to supplement, and to modify the general conditions and other specifications **for the acquisition of supplies, services, equipment, or construction services to ensure compliance with 2 C.F.R. § 200.317 through 200.327 and 2 C.F.R. Part 200, Appendix II** for contracts being awarded using Federal Grant funds.

1. Flow Down of Terms and Conditions from the Grant Agreement

Subcontracts: If the vendor Subcontracts any of the work required under this Agreement, a copy of the signed Subcontract must be forwarded to the Anchorage School District ("District") for review and approval. The vendor agrees to include in the Subcontract that (i) the Subcontractor is bound by the terms of this Agreement, (ii) the Subcontractor is bound by all applicable local, state and federal laws and regulations, and (iii) the Subcontractor shall hold the District harmless against all claims of whatever nature arising out of the Subcontractor's performance of work under this Agreement, to the extent allowed and required by law.

2. Compliance with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations

During the performance of this contract, the Contractor agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.
- (3) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The Contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- (6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The Contractor will include the *portion of the sentence immediately preceding the first paragraph* and the provisions of Paragraphs (1) through (7) in every Subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of Sept. 24, 1965, so that such provisions will be binding upon each Subcontractor or Vendor. The Contractor will take such action with respect to any Subcontract or Purchase Order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or Vendor as a result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.
- (8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States. The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance. The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

3. Davis Bacon Act (See Contract Provisions within Original Contract, if applicable); and Copeland Anti-Kickback Act (See Attached Certification, if applicable).

Note: In situations where the Davis-Bacon Act does not apply, neither does the Copeland "Anti-Kickback Act.

4. Contract Work Hours and Safety Standards Act of 1962, 40 U.S.C. 327 et seq.

The Contractor agrees it will require that mechanics and laborers (including watchmen and guards) employed on this federally assisted contract be paid wages of not less than one and one-half times their basic wage rates for all hours worked in excess of forty hours in a work week.

- (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$26 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
- (3) Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
- (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

5. Federal Fair Labor Standards Act, 29 U.S.C. Section 201 et seq.

The Contractor agrees it will require that covered employees be paid at least the minimum prescribed wage, and also that they be paid one and one-half times their basic wage rates for all hours worked in excess of the prescribed work-week.

6. Copeland "Anti-Kickback" Act (U.S.C. Section 51)

The Contractor agrees to comply with the Copeland Anti-Kickback Act of 1968, if applicable, which outlaws and prescribes penalties for "kickbacks" of wages in federally financed or assisted construction activities.

7. Reporting

The Contractor will provide any information requested by the District which is determined to be required to comply with 2 C.F.R. § 200 requirements and regulations pertaining to reporting.

8. Patents and Data

No reports, maps, or other documents produced in whole or in part under this contract shall be the subject of an application for copyright by or on behalf of the Contractor. The grantor agency and the grantee shall possess all rights to invention or discovery, as well as rights in data which may arise as a result of the Contractor's services.

9. Clean Air Act, Federal Water Pollution Control Act, Executive Order 11738, and US EPA Regulations

Contracts and sub grants of amounts in excess of \$100,000 shall contain a provision that requires the Contractor or recipient to comply with all applicable standards, orders, or requirements issued under Section 112 and 306 of the Clean Air Act (42 U.S.C. § 1857 (h), Section 508 of the Clean Water Act (33 U.S. 1368), Executive Order 11738, and the U.S. Environmental Protection Agency regulations (40 CFR Part 15 and 61). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

10. Energy Conservation Requirements - 42 USC 6201

Energy Conservation - The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

11. If appropriate to the project, the Contractor will provide assurances regarding the following:

- **Procurement of Recovered Materials.** The requirements of Section 6002 of the Solid Waste Disposal Act, Pub. L. No. 89.272 (1965) (codified as amended by the Resource Conservation and Recovery Act at 42 U.S.C. § 6962. The requirements of 6002 include procuring only items designated in guidelines of EPA 40 C.F.R. Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000.
 - a) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired –
 - i. Competitively within a timeframe providing for compliance with the contract performance schedule;
 - ii. Meeting contract performance requirements; or
 - iii. At a reasonable price.
 - b) Information about this requirement, along with the list of EPA-designate items, is available at EPA's Comprehensive Procurement Guidelines website, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

12. Disadvantaged Business Enterprise Program Goals and Six Affirmative Steps.

The Contractor on this project **shall** carry out the required Six Affirmative Steps, listed as items 1 through 6 below when soliciting subcontractor or supplier bids:

1. Include qualified small, minority, women's business enterprises, and labor surplus area firms on solicitation lists.
2. Assure that small, minority, women's business enterprises, and labor surplus area firms are solicited. If the MBE/WBE is only certified as a Disadvantaged Business Enterprise (DBE), such as through the Small Business Administration (SBA), Alaska District Office; and the Alaska Department of Transportation and Public Facilities (DOT&PF), Civil Rights Office, and the bidder has exhausted all efforts to determine the subcontractor MBE/WBE status, the bidder may document either category of certification to meet the good faith efforts.
3. Divide total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, women's business enterprises, and labor surplus area firms.
4. Establish delivery schedules, where requirements of the work permit, which will encourage participation by small, minority, women's business enterprises, and labor surplus area firms.
5. Use the services and assistance of the U.S. Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce, as appropriate.
6. If the prime contractor or proposer awards subcontracts/procurements, require the subcontractor to take the affirmative steps 1 through 5 above.

THE FOLLOWING DOCUMENTS NEED TO BE RETURNED TO THE DISTRICT.

1. Acknowledgement of Terms, Conditions, and Grant Clauses
2. Certification Regarding Lobbying

Acknowledgement of Terms, Conditions, and Grant Clauses

Flow Down of Terms and Conditions from the Grant Agreement

Subcontracts: If the Vendor Subcontracts any of the work required under this Agreement, a copy of the signed Subcontract must be available to the Department for review and approval. The Vendor agrees to include in the Subcontract that (i) the Subcontractor is bound by the terms of this Agreement, (ii) the Subcontractor is bound by all applicable state and federal laws and regulations, and (iii) the Subcontractor shall hold the District harmless against all claims of whatever nature arising out of the Subcontractor's performance of work under this Agreement, to the extent allowed and required by law.

Grant Clauses

On behalf of my firm, I acknowledge, and agree to perform all of the specifications and grant requirements identified in this document.

Vendor/Contractor Name _____ Date _____

Authorized Signature _____

Email Address _____

Address/Phone Number

Contract Number _____

CERTIFICATION REGARDING LOBBYING

(Byrd Anti-Lobbying Amendment, awards over \$100,000)

The undersigned _____ (Vendor/ Contractor) certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal Contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal Contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal Contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)]

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub awards at all tiers (including Subcontracts, sub grants, and Contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

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

_____ Signature of Vendor/Contractor's Authorized Official

_____ Name and Title of Vendor/Contractor's Authorized Official

_____ Date

EXHIBIT 2
Disadvantage Business Enterprises
CONTRACT PARTICIPATION FORM

Efforts to Obtain MBE/WBE/LSAF Participation

- A. Please answer the following questions and return this questionnaire with attachments (i.e., ads, meeting attendance list, etc.) to the Purchasing Agent with your offer.

Project Name: _____
Solicitation Number: _____
Contractor: _____

- B. Did your company: YES/NO

1. Attend any pre-proposal meetings that were scheduled by the District? ☐ **Yes** ☐ **No** ☐ **N/A**
(provide documentation)

If YES, please list the meetings (e.g. site-visit, pre-proposal conference, proposal reading) attended below.

- a)
- b)
- c)

2. Did your company utilize the services or assistance, as appropriate, of such organizations as the Small Business Administration, Alaska District Office, the Department of Transportation and Public Facilities (DOT), Civil Rights Office and/or the US Department of Labor?

☐ **Yes** ☐ **No** ☐ **N/A** **(provide documentation)**

3. Advertise subcontracting opportunities in major circulation newspapers, such as:

- a) Anchorage Daily News?
- b) Pubic Website?
- c) Plans Rooms?
- d) Other types of notices?

☐ **Yes** ☐ **No** ☐ **N/A** **(provide documentation)**

If YES, please attach copies of any ads or notices.

4. Provide timely written notice to specific MBEs/WBEs/LSAFs that their interest in the contract is being solicited? ☐ **Yes** ☐ **No** ☐ **N/A** **(provide documentation)**

If YES, please attach a sample of such notification and list MBEs/WBEs contacted on the Contact Documentation Form (Exhibit 4).

5. Follow-up initial solicitations of interest by personally contacting MBEs/WBEs/LSAFs? ☐ **Yes**
☐ **No** ☐ **N/A** **(provide documentation)**

If YES, please list those MBEs/WBEs/LSAFs contacted on the Contact Documentation Form (Exhibit 4).

6. Select the portions of the contract to be performed by MBEs/WBEs/LSAFs in a manner that will increase the likelihood of MBE/WBE/LSAF participation? ☐ **Yes** ☐ **No** ☐ **N/A (provide documentation)**

If YES, please attach a list of those portions of the contract selected for MBE/WBE/LSAF participation.

7. Provide interested MBEs/WBEs/LSAFs with timely and thorough information about the plans, specifications and technical requirements of the contract? ☐ **Yes** ☐ **No** ☐ **N/A (provide documentation)**

If YES, please list the MBEs/WBEs/LSAFs provided with such information on the Contact Documentation Form (Exhibit 4).

8. Negotiate in good faith with interested MBEs/WBEs/LSAFs, and not reject MBEs/WBEs/LSAFs as unqualified without sound reasons based on a thorough investigation of their capabilities? ☐ **Yes** ☐ **No** ☐ **N/A (provide documentation)**

If YES, list MBEs/WBEs/LSAFs with whom good faith negotiations were conducted on the Contact Documentation Form (Exhibit 4).

9. Assist interested MBEs/WBEs/LSAFs in obtaining bonding and/or insurance. ☐ **Yes** ☐ **No** ☐ **N/A (provide documentation)**

If YES, list MBEs/WBEs/LSAFs assisted on the Contact Documentation Form (Exhibit 4).

10. For each question answered "YES" above that requires a listing of MBEs/WBEs/LSAFs, please provide that listing on this page. Answers need not be limited to a single line. If more space is needed, please attach supplemental sheets. You need only list an MBE/WBE/LSA firm only once. Use the first column to indicate the question(s) referenced above by each firm listed. Any question answered "N/A" above, please provide supporting documentation of good faith efforts taken.

EXHIBIT 3
Disadvantaged Business Enterprises
PRIME CONSULTANT/CONTRACTOR CERTIFICATION

I. PROJECT INFORMATION

Applicant/Entity Name	Total of District Funding
Anchorage School District	\$

Prime Consultant/Contractor: _____
Contract Number: _____ **Contract Amount:** _____

II. AFFIRMATIVE STEPS (Applicant to all subcontracts awarded by the prime consultant/contractor)

I understand that it is my responsibility to comply with all state and federal regulations and guidance in the utilization of Minority, Women-Owned Businesses and Labor Surplus Area Firms in procurement. I certify that I will take affirmative steps to afford opportunities for Minority Business Enterprise (MBE), Women-Owned Business Enterprise (WBE) and Labor Surplus Area Firms (LSAF) by:

1. Including qualified MBEs/WBEs/LSAFs on procurement solicitation lists
2. Soliciting potential MBE's/WBE's/LSAFs.
3. Reducing contract size/quantities when economically feasible to permit maximum participation by MBE's/WBE's/LSAFs.
4. Establishing delivery schedules to encourage participation by MBE's/WBE's/LSAFs.
5. Using the services and assistance of the Small Business Administration, Minority Business Development Agency, U.S. Department of Commerce (<https://www.sba.gov/>), as appropriate, the Department of Transportation and Public Facilities (DOT), Civil Rights Office (<http://www.dot.state.ak.us/cvlrts/directory.shtml>) and/or the US Department of Labor (<http://www.doleta.gov/lssa>).
6. Requiring all Prime Consultants/Contractors to follow steps 1-5 listed above in employing MBE/WBE/LSA Subcontractors.

☐ **Exception:** As Prime Consultant/Contractor, I certify that I have reviewed the contract requirements and found no available subcontracting opportunities. I also certify that I will fulfill 100 percent of the contract requirements with my own employees and resources. (Check if applicable).

Signature – Prime Consultant/Contractor	Name & Title (print legibly)	Certification Date

III. DISTRICT APPROVAL SIGNATURE

Signature indicates the form meets DBE Requirements.

District Coordinator	Approval Date

EXHIBIT 4
Disadvantaged Business Enterprises
CONTACT DOCUMENTATION FORM

Project Name: _____ RFQ/ITB/RFP No. _____

Company Name: _____

This form is provided for your convenience to document your efforts to meet the DBE Affirmative Steps on this project. You may use additional sheets, if needed. You may return this form or other supporting documentation, such as explanations, advertising notices, solicitations, telephone logs, etc. with your Contract Participation Form (Exhibit 3).

Firm: _____ MBE / WBE / LSAF

Address: _____ Phone No: _____

Type of Work: _____ Amount: \$ _____

Dates of Contact: _____

Method of Contact: _____

Name of Person Contacted: _____

Results of Contact: _____

If rejected, why: _____

Firm: _____ MBE / WBE / LSAF

Address: _____ Phone No: _____

Type of Work: _____ Amount: \$ _____

Dates of Contact: _____

Method of Contact: _____

Name of Person Contacted: _____

Results of Contact: _____

If rejected, why: _____

Firm: _____ MBE / WBE / LSAF

Address: _____ Phone No: _____

Type of Work: _____ Amount: \$ _____

Dates of Contact: _____

Method of Contact: _____

Name of Person Contacted: _____

Results of Contact: _____

If rejected, why: _____
