

**LIMITED HAZARDOUS BUILDING MATERIALS
ASSESSMENT SURVEY
MARIE DRAKE SCHOOL
1415 GLACIER HIGHWAY
JUNEAU, ALASKA**

AMENDED - MARCH 15TH, 2012

Prepared for:
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1.0 Executive Summary

This Hazardous Materials Inspection Report has been completed by **NORTECH Environmental Engineering, Health & Safety Consultants (NORTECH)**, as an environmental consultant to Jensen Yorba Lott (JYL). This Hazardous Materials investigation has been prepared to address and identify asbestos containing building materials (ACBM) at the Marie Drake School in Juneau, Alaska and associated regulatory constraints involved with management, hazardous material abatement and/or renovation of the building.

NORTECH was retained by JYL to review past surveys of the building, provide asbestos sampling and a report of our findings of building materials in the areas of the Marie Drake School that will be affected by renovations to be designed by JYL. The Marie Drake School has planned renovation of the gymnasium, reconfiguration of the first floor south side classrooms, renovation of the two existing restrooms on each floor to meet ADA standards, and upgrades to the existing elevator. The investigation was limited primarily to these areas. The Boys and Girls locker rooms were inaccessible during the survey investigation. The only sampling performed in the basement boiler rooms were of components associated with the elevator shaft and AHU equipment servicing the school.

Based on the site inspection and sample results the following building materials of concern were identified:

Asbestos Containing Building Materials (ACBM):

- Friable, Category I
 - White cementitious pipe insulation on pipe runs, elbows and various pipe joints
 - AHU duct tape
- Non Friable, Category II
 - Residual black floor tile mastic beneath carpet
 - Grey cement asbestos board
 - Tan wall panel mastic
 - Sink Undercoating
 - Floor tile and mastics
 - Gypsum wallboard contaminated with ACM joint compound

All hazardous materials previously identified, identified during this survey, or discovered during renovation, require careful handling, appropriate work practices and proper disposal in accordance with applicable federal and state regulatory guidelines. Hazardous materials information associated with the building should be made available to employees, renovation contractors and/or the abatement workers associated with

the renovation of the building. Project renovation specifications should include these findings and, where appropriate, require the contractor to submit a work-plan for approval.

2.0 Background

NORTECH was retained by Jensen Yorba Lott in Juneau, Alaska to complete a limited hazardous material inspection of the Marie Drake School prior to renovations. The Marie Drake School is scheduled for renovation which will include renovation of the gymnasium, reconfiguration of the first floor classrooms, renovation and addition of the ADA- compliant restrooms and upgrade of an existing elevator.

The Marie Drake building was built in 1965 as a junior high school. A library addition was completed in 1984. The building was replaced by the Dzantik’l Heeni Middle School in 1994 and has been used as overflow space for the Harborview Elementary School, the Juneau-Douglas High School, and other Juneau School District programs.

Past renovations include removal of all ACM thermal system insulation in 1988 in the first floor mechanical room, basement room 102 and 110, the equipment storage room 423 of the gymnasium, and the mechanical room off the wood shop. The Marie Drake School also had a new EPDM single-ply roofing system installed in 2002 that included removal of ACM roofing down to clean concrete deck, ADA renovations in 2004, a boiler room upgrade in 2010 that included removal of ACM boilers and most of ACM duct insulation, and replacement of exterior windows in 2011 that included removal of gypsum wallboard contaminated with asbestos joint compound at exterior walls above 34” in rooms where windows were replaced.

3.0 Scope of Work

NORTECH was retained by JYL in Juneau, Alaska to complete a limited hazardous material inspection of the areas within the Marie Drake School planned for renovation. Project scope of work included asbestos sample collection and analysis, hazardous materials inspection and reporting of inspection and sampling results. This limited inspection was to address observed hazards within areas of the school not sampled and tested for hazardous materials in previous assessment surveys. The intent of this limited assessment survey was to fill in gaps between previous documented surveys performed on the school and primarily address and/or confirm observed and documented hazards within the current planned project scope of work. **NORTECH’s** report of these current findings will be included within the school’s AHERA management plan to create a more comprehensive documented assessment of school construction materials for future planned work.

4.0 Methodology

The hazardous material survey was conducted in accordance with the requirements of the Occupational Safety and Health Administration (OSHA) found in 29 CFR 1926. These regulations state that, before authorizing or allowing any construction, demolition, renovation, or remodeling, the owner or owner's agent, or employer, must notify contractors or other persons of the location and quantities of Asbestos Containing Material (ACM) within the work area.

U.S. Environmental Protection Agency National Emissions Standards for Hazardous Air Pollutants (NESHAP) requires a thorough inspection for friable and non-friable ACM by an accredited AHERA inspector prior to any renovation or demolition activity (40 CFR 61.145). NESHAP also requires notification for removal or abatement of regulated quantities of ACM (>260 linear feet, >160 square feet, or >35 cubic feet of regulated asbestos containing material (RACM)).

The sampling collection technique used during the survey generally followed the Asbestos Hazard Emergency Response Act (AHERA) method as defined in 40 CFR 763. All samples collected for analysis were transported under a standard chain of custody. Laboratory analysis of samples was completed by IATL International Asbestos Testing Laboratories of Mt. Laurel, New Jersey, a laboratory certified through the National Voluntary Laboratory Accreditation Program to perform asbestos analysis by polarized light microscopy (PLM) according to EPA method 600/R/93/116 to determine the percent concentration by weight as required by the current OSHA standard. Building materials containing 1% or greater asbestos content are considered to be asbestos-containing materials (ACM). Asbestos inspection and sampling was completed by an individual with current EPA AHERA inspector certification.

The inspection of building materials at the Marie Drake School was performed by an experienced environmental field technician utilizing standard industrial hygiene practices dedicated to the anticipation, recognition, evaluation and control of those factors or stressors arising in or from the workplace, which may cause sickness; impaired health and well-being; or significant discomfort among workers and/or the general public. All work was reviewed and signed off by a board Certified Industrial Hygienist (CIH) or Registered Professional Engineer (PE).

5.0 Limitations

NORTECH provides a level of service that is performed within the standard of care and competence found within this practice and the engineering profession. It must be recognized that limitations in a hazardous material inspection and assessment exist. The data presented in this report should be considered representative of only the time of our inspection and was given focus on interior materials, only, per client directive. In addition, changes in the condition of the facility can occur with the passing of time, due to natural processes and/or from human activities. **NORTECH** has performed the work, made the findings, and proposed the recommendations described in this report in accordance with generally accepted practice and technology available at the time the work was performed.

NORTECH has based its conclusions and recommendations on our current understanding of regulatory policies. The regulations concerning hazardous materials are constantly changing, including the interpretations of regulating agencies. If changes in regulations or their interpretation occur, then **NORTECH** reserves the right to amend or revise conclusions and/or recommendations.

6.0 Field Activities

On January 6 and 7, 2012, a member of **NORTECH's** staff completed a limited hazardous material inspection of the Marie Drake School building Located in Juneau, Alaska. A **NORTECH** Hazardous Materials Specialist collected a total of 81 samples of building materials around the first and second floor South classrooms, offices and closets, as well as the elevator and gymnasium scheduled to be renovated as part of upgrades to the building for its future use as overflow for various school programs. Some of those samples were collected outside those parameters in an effort to tie in prior surveys performed by others within Marie Drake school in conjunction with the results of **NORTECH's** recent survey investigation.

NORTECH personnel collected samples of various pipe insulation, flooring and mastics, joint compounds, gypsum wall board (GWB), carpet mastics, acoustical ceiling tile and mastics, wallboard mastics, tapes and cloths associated with air handling units, sink undercoating, insulation board, concrete finishes and interior finishes of the elevator coach. A total of 81 samples were collected during the survey and submitted for laboratory analysis by polarized light microscopic (PLM) method.

Other hazardous materials were watched for and observed during the survey investigation. A representative floor plan of the structure was provided by JYL to depict sample locations and materials quantified (see figures H1 & H2).

7.0 Sample Results

Asbestos

The summary of ACM samples, description, and results are presented in Table 1 and locations are depicted in figures H1 & H2. The following ACM were identified:

Asbestos Containing Building Materials (ACBM):

- Friable, Category I
 - White cementitious pipe insulation on pipe runs, elbows and various pipe joints
 - AHU duct tape
- Non Friable, Category II
 - Residual black floor tile mastics beneath rubber flooring and carpets
 - Grey cement asbestos board
 - Tan wall panel mastic
 - Sink Undercoating
 - Floor tile and mastics
 - Gypsum wallboard contaminated with ACM joint compound
 - Speaker boxes with ACM coating inside (Presumed ACM)

Other Hazardous materials

NORTECH found other hazardous building material components during this inspection. These components include fluorescent tube light bulbs and tubes containing mercury, emergency exit signs, emergency lighting and smoke detectors containing batteries. Speaker boxes for announcements typically containing ACM sound deadening coating inside. Smoke detectors and emergency exit signs containing radioactive material.

8.0 Analysis

Asbestos

A total of 81 suspect ACM samples were sent to IATL Laboratories in Mt. Laurel, New Jersey for PLM analysis. Laboratory analysis confirmed asbestos content greater than 1% in the following building materials.

- **Friable, Category I**
 - White cementitious pipe insulation on pipe runs, elbows and various pipe joints "Unknown amount"
 - AHU duct tape 400 L.F.
- **Non Friable, Category II**
 - Residual black floor mastics beneath carpet in I.T. offices 300 sq. ft.
 - Grey cement asbestos board 250 sq. ft.

- | | |
|--|-----------------|
| ▪ Tan wall panel mastic | 400 sq. ft. |
| ▪ Sink Undercoating | 20 ea. |
| ▪ Floor tile and mastics | 14,600 sq. ft. |
| ▪ Gypsum wallboard contaminated with ACM joint compound | 232,000 sq. ft. |
| ▪ Speaker boxes with ACM coating (<i>Presumed ACM</i>) | 80 ea. |

Friable ACM discovered prior to or during renovation will require removal by a certified asbestos abatement contractor using Class 1 work methods.

Non-friable category II ACM may be removed by a certified asbestos abatement contractor using Class II work methods prior to renovation, or may remain in the building after renovation.

Lead

Previous lead paint surveys have extensively sampled each painted surface throughout the Marie Drake School with documented results. Investigation of painted surfaces of the school, compared to previous documentation, revealed no significant changes to warrant additional testing.

Other Hazardous materials

NORTECH found other hazardous building material components during this inspection. These components include 2,300 fluorescent tube light bulbs containing mercury, 16 emergency exit signs with lead-acid batteries, 11 emergency lights containing lead-acid batteries, 2 emergency exit signs containing radioactive material, 60 smoke detectors with radioactive Americium.

9.0 Conclusions and Recommendations

A visual inspection and sampling of building materials within the Marie Drake School was completed to identify ACM building materials and potential hazards prior to planned renovations.

Based on the assessment findings **NORTECH** developed the following conclusions and recommendations:

- Friable ACM, Category I pipe insulation was identified and require proper removal and disposal by a certified asbestos abatement contractor using Class 1 work methods prior to plumbing demolition, repairs and re-configuration.
- Friable ACM Category I AHU duct tape exists on mechanical room AHU ductwork and requires proper removal and disposal by a certified asbestos abatement contractor using Class 1 work methods prior to AHU demolition and reconfiguration.

- Non-Friable ACM Category II residual black floor tile mastic exists beneath carpeting where ACM floor tiles and mastic had once been removed, these locations are throughout the Marie Drake school. Floor tiles and black mastic exists in many areas throughout the school as well. Residual mastics from ACM flooring must be watched for during removal of other non-ACM flooring during renovation. Areas where residual mastics exist in significant quantity (other than heavy staining of sub-floor surfaces) must be properly removed and disposed of by a certified asbestos abatement contractor using Class II work methods prior to renovation.
- Non-Friable ACM Category II grey cement asbestos board exists in kitchen utility/equipment room and will require proper removal and disposal by a certified asbestos abatement contractor using Class II work methods prior to renovation.
- Non-Friable ACM Category II tan wall panel mastic exists behind Marlite wall panels of the weight room/stage of the Gymnasium. Wall panels and mastic require proper removal and disposal by a certified asbestos abatement contractor using Class II work methods prior to renovation.
- Non-Friable ACM Category II black and purple sink undercoating exists beneath stainless steel sinks throughout Marie Drake school. Sinks removed during renovation must be removed and properly disposed of by a certified asbestos abatement contractor using Class II work methods prior to renovation.
- Non-Friable ACM Category II floor tile and black mastic exists throughout Marie Drake school and must be properly removed and disposed of by a certified asbestos abatement contractor using Class II work methods prior to renovation.
- Non-Friable ACM Category II gypsum wallboard contaminated with ACM joint compound exists throughout Marie Drake school. Gypsum wallboard disturbed or removed will require proper removal, handling and disposal by a certified asbestos abatement contractor using Class II work methods prior to renovation.
- (Presumed ACM) Non-Friable ACM Category II asbestos-containing sound deadening coating inside speaker boxes throughout Marie Drake school. Speaker boxes removed during demolition and not re-used within the school will require proper removal and disposal by a certified asbestos abatement contractor using Class II work methods prior to renovation.
- Fluorescent tube light bulbs contain mercury and must be disposed of as hazardous waste.
- Emergency exit signs and emergency lighting containing lead-acid batteries, if not reused in the school, must be relieved of their batteries and the batteries disposed through proper recycling protocols.
- Emergency exit signs and smoke detectors containing radioactive material that are not reused in the school must be returned to their manufacturer for proper disposal.

All information about hazardous materials associated with the building should be made available to employees and contractors with regard to the handling or renovation of the building. Project specifications should note these inspection findings, address

concerns identified and, where appropriate, require the contractor to submit a work-plan for approval.

NORTECH did not conduct any assessment work on the facility for lead based paint, as directed.

Previous hazardous materials assessment reports for the facility prepared by others are attached as Appendix D. **NORTECH** has field verified areas of concern identified by others, and sampled areas (mechanical room and pipe insulation) to confirm where previous work ended. **NORTECH** cannot verify the validity or completeness of work prepared by others. **NORTECH's** Scope of Work was restricted to indentifying materials of concern within the 2012 Marie Drake School Renovation project.

We trust that this information is sufficient for your needs at this time. If you have any questions or comments regarding this information, please contact **NORTECH**. We appreciate the opportunity to work with you on this project and your confidence in our Firm.

10.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

NORTECH is a Fairbanks-based, professional consulting firm, established in 1981, offering environmental engineering, civil engineering, and industrial hygiene consulting services. **NORTECH** has offices in Fairbanks, Anchorage and Juneau and has completed numerous Phase I ESAs and other property and/or building inspections across Alaska.

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Mr. Frank White is a Hazardous Materials Specialist. He attended University of Alaska Anchorage from 1976-1977 for Civil Engineering and Survey Drafting, and the University of Puget Sound, Pacific Lutheran University, Tacoma Community Colleges from 1981-1989. Mr. White is a Certified EPA/AHERA Building Inspector; 40 Hr. HAZWOPER certified; Confined Space Entry certified; State of Alaska 40 Hr Asbestos Abatement Worker-Supervisor Certified; 30 Hr. OSHA Safety Certified; NSTC Certified; North Slope Driving certified; and NITON XRF Lead Paint Analyzer equipment trained. He is trained and experienced in performing Hazardous Materials Surveys for commercial and residential structures. He routinely performs onsite inspection and sampling for bulk asbestos, lead based paint and other hazardous materials for many

clients across the State of Alaska. He has experience conducting project oversight involving Safety and compliance to project design specifications, Federal and State regulations; performing indoor air quality assessments; sampling for mold; noise assessments; and performing clearance air monitoring to clear commercial and public school facilities for reoccupation after abatement and renovation projects involving regulated material hazards.

Mr. Jason Ginter is Principal and Juneau Technical Manager for **NORTECH**. He has completed various hazardous materials investigations providing professional field-screening and sampling. Mr. Ginter is a qualified ADEC field sampler, an AHERA Certified Inspector (T-20065-11607) and is HAZWOPER-certified.



Survey performed by:
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Appendix A

Table 1 Asbestos Results

Table 1
Summary of Suspect Asbestos Containing Materials

MARIE DRAKE SCHOOL

Sample Number	Material Description	% Asbestos (NAD=No Asbestos Detected)	Quantities	Location
MD1712-01	Black wall panel mastic	NAD	NA	E. wall of Gym
MD1712-02	Black wall panel mastic	NAD	NA	S. wall of Gym
MD1712-03	Black wall panel mastic	NAD	NA	W. wall of exit vestibule, NW corner of Gym
MD1712-04	Black wall panel mastic	NAD	NA	N. wall of Gym, next to NW exit vestibule
MD1712-05	White joint compound and tape	JC= PC1.6% Chrysotile PC98.4% Non-fibrous Tape= NAD	18,500 s.f.	Ceiling of Gym, NW corner of Gym
MD1712-06	Glued on acoustical ceiling tile and mastic	NAD	NA	Ceiling of Gym, NW corner of GYM
MD1712-06a	White gypsum wallboard	NAD	NA	Ceiling of Gym, NW corner of Gym
MD1712-07	White joint compound and tape	JC= PC1.6% Chrysotile PC98.4% Non-fibrous Tape= NAD	(Same as MD1712-05)	Ceiling of Gym, near E. wall of Gym
MD1712-08	Glued on acoustical ceiling tile and mastic	NAD	NA	Ceiling of Gym, near E. wall of Gym
MD1712-09	White joint compound and tape	JC= PC1.8% Chrysotile PC98.2% Non-fibrous Tape= NAD	(Same as MD1712-05)	Ceiling of Gym, W. of samples A05 & A06, NW corner of Gym
MD1712-10	Glued on acoustical ceiling tile and mastic	NAD	NA	Ceiling of Gym, W. of samples



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Sample Number	Material Description	% Asbestos (NAD=No Asbestos Detected)	Quantities	Location
				A05 & A06, NW corner of Gym
MD1712-11	White gypsum wallboard	NAD	NA	E. wall of Gym's SE Janitor's storage room
MD1712-12	White joint compound	JC= PC1.7% Chrysotile PC98.3% Non-Fibrous	66,000 s.f.	NW corner of Gym's SE Janitor's storage room
MD1712-13	White joint compound	JC= PC1.9% Chrysotile PC98.1% Non-fibrous	(Same as MD1712-12)	E. entrance to Coach's shower room, SW corner of Gym
MD1712-14	Ceramic tile mastic	NAD	NA	E. entrance to Coach's shower room, SW corner of Gym
MD1712-15	White joint compound and tape	JC= PC1.7% Chrysotile PC98.7% Non-fibrous Tape=NAD	5,500 s.f.	Ceiling of corridor outside Gym's SE exit
MD1712-16	White gypsum wallboard	NAD	NA	Ceiling of corridor outside Gym's SE exit
MD1712-17	Glued on acoustical ceiling tile mastic	NAD	NA	Ceiling of corridor outside Gym's SE exit
MD1712-18	Cove base mastic	NAD	NA	E. wall of corridor outside Gym's SE exit
MD1712-19	Black wall panel mastic	NAD	NA	E. wall of Janitor's storage room, S. corridor to Girl's locker room
MD1712-20	White gypsum wallboard	NAD	NA	E. wall of Janitor's storage room, S. corridor to Girl's locker room
MD1712-21	White joint compound	PC1.6% Chrysotile PC98.4%	(Same as MD1712-12)	N. wall of Janitor's storage room,



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Sample Number	Material Description	% Asbestos (NAD=No Asbestos Detected)	Quantities	Location
		Non-fibrous		S. corridor to Girl's locker room
MD1712-22	Cove base mastic	NAD	NA	S. wall of corridor to Girl's locker room
MD1712-23	Cove base mastic	NAD	NA	N. wall of Janitor's storage room, S. corridor to Girl's locker room
MD1712-24	White gypsum wallboard	NAD	NA	S. wall of storage room N. of weight room at Gym
MD1712-25	White wall texturing compound	NAD	NA	E. wall of storage room, N. of weight room at Gym
MD1712-26	White wall texturing compound	NAD	NA	N. wall of storage room, N. of weight room at Gym
MD1712-27	White joint compound	NAD	NA	NE exit of storage room, N. of weight room at Gym
MD1712-28	Cove base mastic	NAD	NA	S. wall of storage room, N. of weight room at Gym
MD1712-29	"Tektum" acoustical ceiling tile	NAD	NA	NW corner of storage room, N. of weight room at Gym
MD1712-30	Tan wall panel mastic	PC2.5% Chrysotile PC97.5% Non-fibrous	400 s.f.	N. wall of Gym stage
MD1712-31	White gypsum wallboard	NAD	NA	S. wall of NE boy's restroom
MD1712-32	Ceramic tile mastic	NAD	NA	N. wall of NE boy's restroom
MD1712-33	Rubber flooring and mastic	NAD	NA	N. corridor leading to shop
MD1712-34	White joint compound	NAD	NA	N. wall of



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Sample Number	Material Description	% Asbestos (NAD=No Asbestos Detected)	Quantities	Location
				corridor leading to shop
MD1712-35	Tan wall panel mastic	NAD	NA	N. wall of corridor leading to shop
MD1712-36	White joint compound	NAD	NA	SE corner of IT room
MD1712-37	Sheet vinyl and mastic	NAD	NA	SE corner of IT, inside entrance
MD1712-38	Sheet vinyl and mastic <i>(Note: mastic is residual floor tile mastic left over from previous floor tiles)</i>	SV= NAD Mast= PC1.5% Chrysotile PC98.5% Non-fibrous	300 s.f.	Entrance to Office #1, IT room
MD1712-39	Carpet mastic <i>(Note: mastic is residual floor tile mastic left over from previous floor tiles)</i>	PC1.7% Chrysotile PC98.3% Non-fibrous	(Same as MD1712-38)	Entrance to Office #1, IT room
MD1712-40	Wall carpet mastic	NAD	NA	E. wall, entrance to IT
MD1712-41	Cove base mastic	NAD	NA	E. storage room of Shop
MD1712-42	"Tekum" acoustical ceiling tile	NAD	NA	Ceiling, middle of Shop
MD1712-43	White gypsum wallboard	NAD	NA	S. half of Music Room
MD1712-44	White wall texturing compound	NAD	NA	S. half of Music Room
MD1712-45	White wall texturing compound, white joint compound, wall carpet mastic	NAD	NA	N. wall of Music Room
MD1712-46	Black wall panel mastic	NAD	NA	N. wall of NE Janitor's storage room
MD1712-47	White cementitious pipe insulation	10% Chrysotile Trace Cellulose 15% Fiberglass 75% Non-fibrous	15 – 20 pipe joints	Above ceiling of NE Janitor's storage room on 2" elbow
MD1712-48	White cementitious pipe insulation	10% Chrysotile Trace Cellulose 15% Fiberglass 75% Non-fibrous	(Same as MD1712-47)	Above ceiling of NE Janitor's storage room on 4" elbow



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Sample Number	Material Description	% Asbestos (NAD=No Asbestos Detected)	Quantities	Location
MD1712-49	Grey cement board	20% Chrysotile 80% Non-fibrous	250 s.f.	E. wall of NE Equipment room at end of corridor behind Kitchen
MD1712-50	Sheet vinyl and mastic	NAD	NA	Room 220, SW corner of room, near entrance. 1 st Floor
MD1712-51	White joint compound	NAD	NA	Room 220, SW corner, near entrance. 1 st Floor
MD1712-52	Purple sink undercoating	PC4.4% Chrysotile PC95.6% Non-fibrous	14 sinks	Storage room off Intensive "I" classroom, SE corner of storage room. 1 st Floor
MD1712-53	Cove base mastic	NAD	NA	Storage room off Intensive "I" classroom, SE corner of storage room. 1 st Floor
MD1712-54	Glued on acoustical ceiling tile mastic	NAD	NA	Storage room ceiling, off Intensive "I" classroom, SW corner of storage room. 1 st Floor
MD1712-55	White leveling compound	NAD	NA	Entrance to elevator. 1 st Floor
MD1712-56	Floor tile and mastic	FT= PC2.5% Chrysotile PC97.5% Non-fibrous Mast= PC1.8% Chrysotile PC98.2% Non-fibrous	5,600 s.f.	Janitor's storage room next to elevator, 1 st Floor
MD1712-57	AHU duct tape	60% Chrysotile 20% Cellulose 20% Non-	150 L.F.	Mechanical room behind Janitor's



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Sample Number	Material Description	% Asbestos (NAD=No Asbestos Detected)	Quantities	Location
		fibrous		storage room by elevator. 1 st Floor
MD1712-58	AHU duct tape	50% Chrysotile 30% Cellulose 20% Non-fibrous	(Same as MD1712-57)	Mechanical room behind Janitor's storage room by elevator. 1 st Floor
MD1712-59	Fibrous wallboard	NAD	NA	Mechanical room behind Janitor's storage room by elevator. 1 st Floor
MD1712-60	AHU flex cloth	NAD	NA	Mechanical room behind Janitor's storage room by elevator. 1 st Floor
MD1712-61	AHU flex cloth	NAD	NA	Mechanical room behind Janitor's storage room by elevator. 1 st Floor
MD1712-62	White joint compound	NAD	NA	Room 229, SW corner, 1 st Floor
MD1712-63	White leveling compound and carpet mastic	NA	NA	Room 229, S. middle of room, 1 st Floor
MD1712-64	White gypsum wallboard	NA	NA	Behind heat register, Room 232, NW corner, exterior wall. 1 st Floor
MD1712-65	White joint compound	NAD	NA	Below window of room 232, NW corner above heat register, exterior wall. 1 st Floor
MD1712-66	White chalky pipe insulation	10% Chrysotile 15% Fiberglass 75% Non-	(Estimate un-determined)	N. wall of room 232 at pipe access panel.



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Sample Number	Material Description	% Asbestos (NAD=No Asbestos Detected)	Quantities	Location
		fibrous		1st Floor
MD1712-67	Floor tile and mastic	FT= PC1.2% Chrysotile PC98.8% Non-fibrous Mast= PC3.5% Chrysotile PC96.5% Non-fibrous	(Same as MD1712-56)	Room 232, NE corner near entrance. 1 st Floor
MD1712-68	Floor tile and mastic	FT= PC1.4% Chrysotile PC98.6% Non-fibrous Mast= PC3.7% Chrysotile PC96.3% Non-fibrous	(Same as MD1712-56)	SE office off S. end of Room 232. 1 st Floor
MD1712-69	Purple sink undercoating	PC4.1% Chrysotile PC95.9% Non-fibrous	(Same as MD1712-52)	SE office off S. end of Room 232, 1 st Floor
MD1712-70	Black sink undercoating	PC2.5% Chrysotile PC97.5% Non-fibrous	(Same as MD1712-52)	Room 236, E. wall. 1 st Floor
MD1712-71	Ceramic tile and mastic	NAD	NA	Boys restroom, 1 st Floor
MD1712-72	Floor tile	PC1.3% Chrysotile PC98.7% Non-fibrous	(Same as MD1712-56)	Room 242, S. middle. 1 st Floor
MD1712-72a	White wall texturing compound	NAD	NA	Room 230, S. wall next to hallway. 1 st Floor
MD1712-73	Wall panel finish surface	NAD	NA	Elevator Coach, Basement
MD1712-74	Ceiling panel finish surface	NAD	NA	Elevator Coach, Basement
MD1712-75	Carpet mastic	NAD	NA	Elevator Coach, Basement
MD1712-76	Cement surface coat	NAD	NA	Elevator shaft, Basement
MD1712-77	AHU duct tape	60% Chrysotile 20% Cellulose 20% Non-fibrous	150L.F.	Maintenance room nearest to elevator shaft,



Environmental Engineering & Industrial Hygiene Consultants

J Yorba Lot, Architect
Marie Drake School Juneau, AK
February, 2012

Sample Number	Material Description	% Asbestos (NAD=No Asbestos Detected)	Quantities	Location
				Basement
MD1712-78	Sheet vinyl and mastic <i>(Note: mastic is residual floor tile mastic left over from previous floor tiles)</i>	SV= NAD Mast= PC0.75% Chrysotile 15% Fiberglass 85% Non-fibrous	6,500 s.f.	Room 309, NE corner near entrance, 2nd Floor
MD1712-79	Black sink undercoating	PC2.3% Chrysotile PC97.7% Non-fibrous	6 sinks	Room 311, S. wall, 2nd Floor
MD1712-80	Floor tile and mastic	FT= PC1.5% Chrysotile PC98.5% Non-fibrous Mast= PC3.6% Chrysotile PC96.4% Non-fibrous	(Same as MD1712-78)	NE corner of Janitor's storage room near elevator, 2nd Floor



ENVIRONMENTAL ENGINEERING & INDUSTRIAL HYGIENE

Anchorage: 3105A Lakeshore Dr., #A106, 99517 907.222.2445 Fax: 222.0915

Fairbanks: 2400 College Rd, 99709 907.452.5688 Fax: 452.5694

Juneau: 119 Seward St. #10, 99801 907.586.6813 Fax: 463.2550

info@nortechengr.com

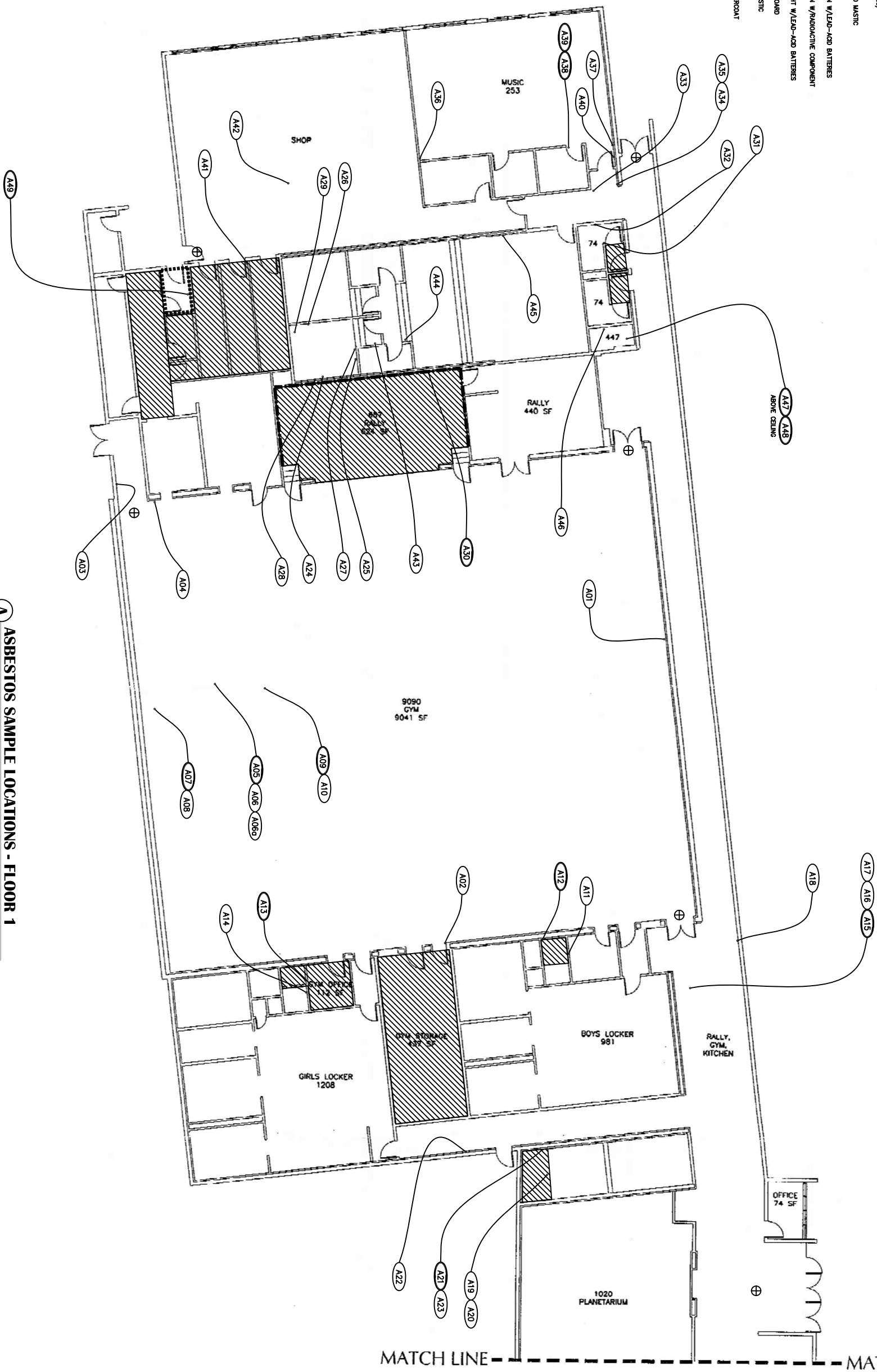
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Appendix B

Sample Location Drawings

LEGEND

- ASBESTOS SAMPLE LOCATIONS
NEGATIVE (0% ASBESTOS)
ASBESTOS SAMPLE LOCATIONS
POSITIVE (≥ 1% ASBESTOS)
- ACM FLOOR TILE AND MASTIC
- EMERGENCY EXIT SIGN W/LEAD-ACID BATTERIES
- EMERGENCY EXIT SIGN W/RADIOACTIVE COMPONENT
- EMERGENCY EXIT LIGHT W/LEAD-ACID BATTERIES
- CEMENT ASBESTOS BOARD
- TIN WALL PANEL MASTIC
- SINK WITH ACM UNDERCOAT



A ASBESTOS SAMPLE LOCATIONS - FLOOR 1
SCALE: N.T.S.



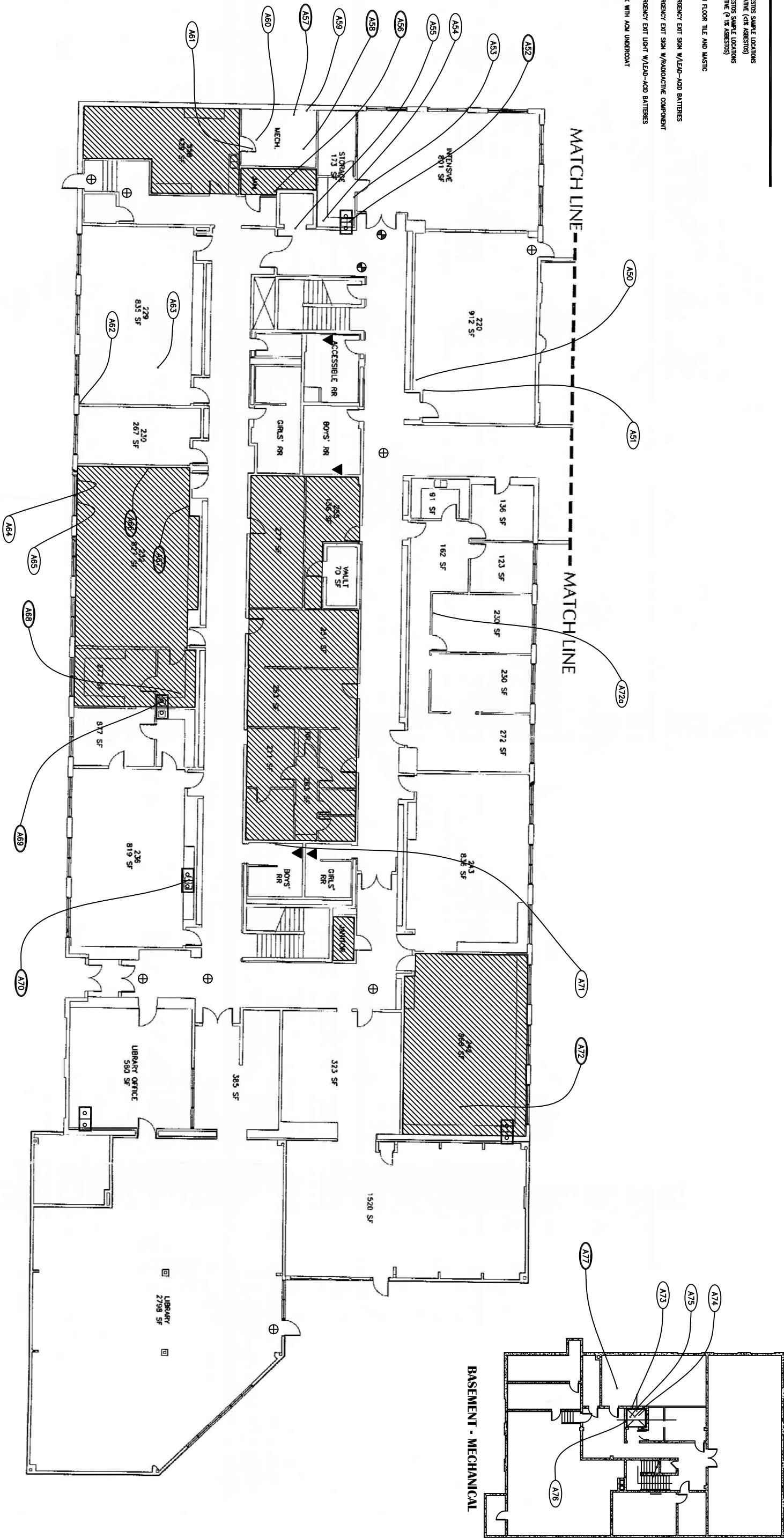
ENVIRONMENTAL ENGINEERING, HEALTH & SAFETY
2400 College Road, Fbks., AK. 99709, 907-452-5688
3105 Lakeshore Dr., Anch., AK. 99517 907-222-2445
4402 Thone Road, Jnu., AK. 99801, 907-586-6813

JUNEAU SCHOOL DISTRICT
MARIE DRAKE ELEMENTARY SCHOOL
JUNEAU, ALASKA

DATE: 02/17/2012	SCALE: N.T.S.
PROJ MGR: FCW	PROJECT: 12-1002J
DRAWN: FCW	DWG. NO.: 12-1002J.DWG

LEGEND

- XXX ASBESTOS SAMPLE LOCATIONS
- XXX NEGATIVE (NOT ASBESTOS)
- XXX ASBESTOS SAMPLE LOCATIONS POSITIVE (+ IS ASBESTOS)
- ACM FLOOR TILE AND MASTIC
- EMERGENCY EXIT SIGN W/LEAD-ACID BATTERIES
- EMERGENCY EXIT SIGN W/RADIOACTIVE COMPONENT
- EMERGENCY EXIT LIGHT W/LEAD-ACID BATTERIES
- SNK WITH ACM UNDERCOAT



A ASBESTOS SAMPLE LOCATIONS - FLOOR 1A
SCALE: N.T.S.

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3105 Lakeshore Dr., Anch., AK. 99517 907-222-2445
4402 Thone Road, Jnu., AK. 99801, 907-586-6813

JUNEAU SCHOOL DISTRICT
MARIE DRAKE ELEMENTARY SCHOOL
JUNEAU, ALASKA

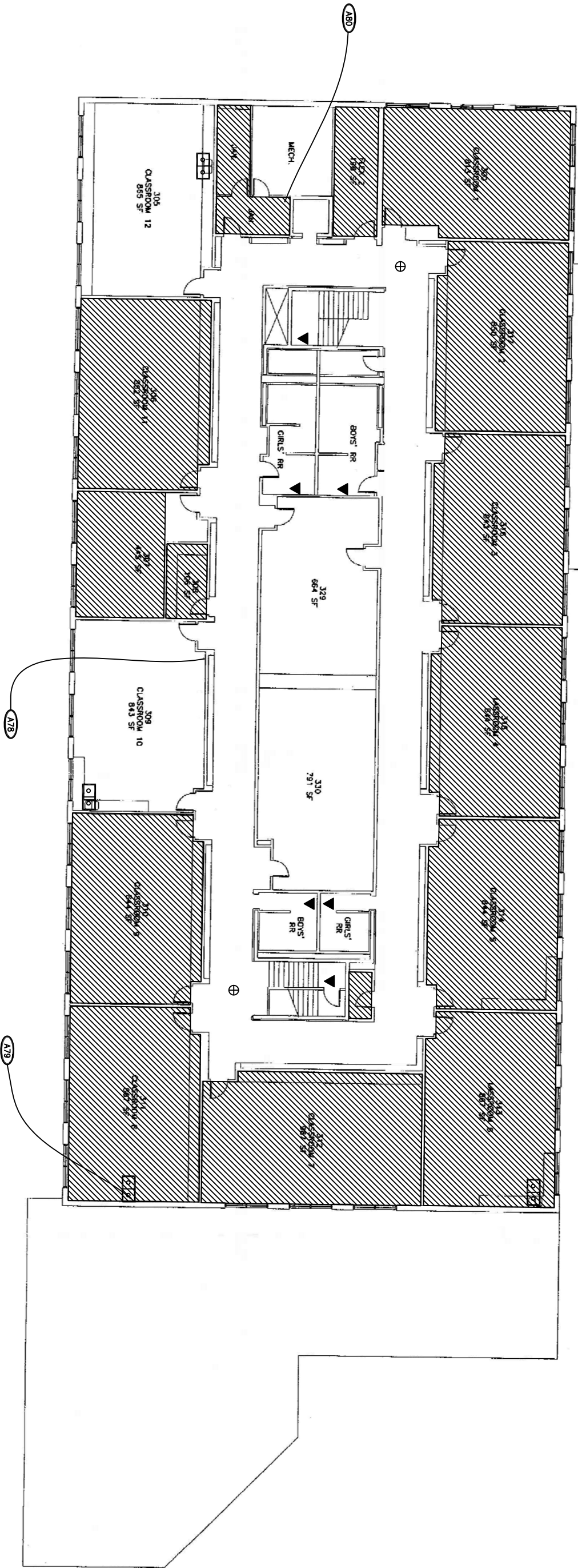
DATE: 02/17/2012	SCALE: N.T.S.
PROJ MGR: FCW	PROJECT: 12-1002J
DRAWN: FCW	DWG. NO.: 12-1002J.DWG

FIGURE
H2



LEGEND

- Asbestos Sample Locations Negative (0% Asbestos)
- Asbestos Sample Locations Positive (≥ 1% Asbestos)
- ACM Floor Tile and Mastic
- Emergency Exit Sign w/Lead-Acid Batteries
- Emergency Exit Sign w/Radiactive Component
- Emergency Exit Light w/Lead-Acid Batteries
- Sink with ACM Undercoat



A ASBESTOS SAMPLE LOCATIONS - FLOOR 2
SCALE: N.T.S.



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3105 Lakeshore Dr., Anch., AK. 99517 907-222-2445
4402 Thone Road, Jnu., AK. 99801, 907-586-6813

JUNEAU SCHOOL DISTRICT
MARIE DRAKE ELEMENTARY SCHOOL
JUNEAU, ALASKA

DATE: 02/17/2012	SCALE: N.T.S.
PROJ MGR: FCW	PROJECT: 12-1002J
DRAWN: FCW	DWG. NO.: 12-1002J.DWG



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info@nortechengr.com

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Appendix C

Laboratory Results

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530362	Description / Location:	Black Mastic; Wall Panel	
Client No.:	MD1712-A01		East Wall Of Gymnasium	
<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.:	4530363	Description / Location:	Black Mastic; Wall Panel	
Client No.:	MD1712-A02		South Wall Of Gymnasium	
<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.:	4530364	Description / Location:	Black Mastic; Wall Panel; WestWall	
Client No.:	MD1712-A03		Of ExitVestibule,NW Corner Of Gymnasium	
<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.:	4530365	Description / Location:	Black Mastic; Wall Panel; North Wall	
Client No.:	MD1712-A04		Of Gymnasium,Next To NW Exit Vestibule	
<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

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

Comments:

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Analysis Performed By: L. Solebello

Approved By:

Date: 1/17/2012

Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530366	Description / Location:	Off-White Joint Compound; Ceiling Of	
Client No.:	MD1712-A05		Gymnasium,NW Corner Of Gymnasium	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 1.6	Chrysotile	None Detected	None Detected	PC 98.4

Lab No.:	4530366	Description / Location:	Tan Paper	Layer No.: 2
Client No.:	MD1712-A05		Gymnasium,NW Corner Of Gymnasium	
<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	Cellulose	5

Lab No.:	4530367	Description / Location:	Off-White Ceiling Tile	
Client No.:	MD1712-A06		Gymnasium,NW Corner Of Gymnasium	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	60	Fibrous Glass	40

Lab No.:	4530367	Description / Location:	Brown Mastic	Layer No.: 2
Client No.:	MD1712-A06		Gymnasium,NW Corner Of Gymnasium	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	Trace	Other	100

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

Comments:

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530368	Description / Location:	Off-White Sheetrock; Ceiling Of	
Client No.:	MD1712-A06a		Gymnasium,NW Corner Of Gymnasium	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	5	Fibrous Glass	95
		Trace	Cellulose	

Lab No.:	4530369	Description / Location:	Off-White Joint Compound; Ceiling Of	
Client No.:	MD1712-A07		Gymnasium,Near East Wall Of Gymnasium	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 1.6	Chrysotile	None Detected	None Detected	PC 98.4

Lab No.:	4530369	Description / Location:	Tan Paper	Layer No.: 2
Client No.:	MD1712-A07		Gymnasium,Near East Wall Of Gymnasium	
<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	Cellulose	5

Accreditations:

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Analytical Method

EPA 600/R-93/116

Comments:

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530370	Description / Location:	Off-White Ceiling Tile
Client No.:	MD1712-A08		Gymnasium, Near East Wall Of Gymnasium
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	Trace	Cellulose
		60	Fibrous Glass

Lab No.:	4530370	Description / Location:	Brown Mastic	Layer No.:	2
Client No.:	MD1712-A08		Gymnasium, Near East Wall Of Gymnasium		
<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	Other	98	

Lab No.:	4530371	Description / Location:	Off-White Joint Compound; Ceiling Of
Client No.:	MD1712-A09		Gymnasium, W of Samples A05 & A06, NW Corner
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 1.8	Chrysotile	None Detected	None Detected
			PC 98.2

Lab No.:	4530371	Description / Location:	Brown Paper	Layer No.:	2
Client No.:	MD1712-A09		Gymnasium, W of Samples A05 & A06, NW 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	95	Cellulose	5	

Accreditations:	NIST-NVLAP No. 101165-0	NY-DOH No. 11021	AIHA-LAP, LLC No. 100188
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Analytical Method	EPA 600/R-93/116
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Comments:	(PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (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. 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.
------------------	--

Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530372	Description / Location:	Off-White Ceiling Tile; Gym	
Client No.:	MD1712-A10		WestOfSamplesA05&A06,NW Corner Of Gym	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	60	Fibrous Glass	40

Lab No.:	4530372	Description / Location:	Brown Mastic	Layer No.:	2
Client No.:	MD1712-A10		WestOfSamplesA05&A06,NW Corner Of Gym		
<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	Other	98	

Lab No.:	4530373	Description / Location:	Off-White/Tan Sheetrock; East Wall	
Client No.:	MD1712-A11		Of Gymnasium's SE Janitor's Storage 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	7	Cellulose	90
		3	Fibrous Glass	

Lab No.:	4530374	Description / Location:	Off-White Joint Compound; NW Corner	
Client No.:	MD1712-A12		Of Gymnasium's SE Janitor's Storage Room	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 1.7	Chrysotile	None Detected	None Detected	PC 98.3

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530375	Description / Location:	Off-White Joint Compound; East Entrance		
Client No.:	MD1712-A13		To Coach's Shower Room, SW Corner of Gymnasium		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
PC 1.9	Chrysotile	None Detected	None Detected	PC 8.1	

Lab No.:	4530376	Description / Location:	Brown Ceramic Tile Mastic; East Entrance		
Client No.:	MD1712-A14		To Coach's Shower Room, SW Corner of Gymnasium		
<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.:	4530377	Description / Location:	Off-White Joint Compound; Ceiling		
Client No.:	MD1712-A15		Of Corridor Outside Gymnasium's SE Exit		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
PC 1.7	Chrysotile	None Detected	None Detected	PC 98.3	

Lab No.:	4530377	Description / Location:	Tan Paper		Layer No.: 2
Client No.:	MD1712-A15		Of Corridor Outside Gymnasium's SE Exit		
<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	Cellulose	5	

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4530378

Client No.: MD1712-A16

Description / Location:

Off-White Sheetrock; Ceiling

Of Corridor Outside Gymnasium's SE Exit

% AsbestosType% Non-Asbestos Fibrous MaterialType% Non-Fibrous Material

None Detected

None Detected

2

Cellulose

95

3

Fibrous Glass

Lab No.: 4530379

Client No.: MD1712-A17

Description / Location:

Off-White Ceiling Tile

Corridor Outside Gymnasium's SE Exit

% AsbestosType% Non-Asbestos Fibrous MaterialType% Non-Fibrous Material

None Detected

None Detected

Trace

Cellulose

40

60

Fibrous Glass

Lab No.: 4530379

Client No.: MD1712-A17

Description / Location:

Brown Mastic

Corridor Outside Gymnasium's SE Exit

Layer No.: 2

% AsbestosType% Non-Asbestos Fibrous MaterialType% Non-Fibrous Material

None Detected

None Detected

2

Other

98

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

Comments:

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530380	Description / Location:	Black Cove Base; East Wall Of
Client No.:	MD1712-A18		Corridor Outside Gymnasium's SE Exit
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	4530380	Description / Location:	Yellow Mastic	Layer No.:	2
Client No.:	MD1712-A18		Corridor Outside Gymnasium's SE Exit		
<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.:	4530380	Description / Location:	Brown Mastic	Layer No.:	3
Client No.:	MD1712-A18		Corridor Outside Gymnasium's SE Exit		
<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.:	4530381	Description / Location:	Black Wall PanelMastic;E.WallOfJanitor's
Client No.:	MD1712-A19		StorageRm,S.CorridorToGirl'sLockerRm
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Accreditations:	NIST-NVLAP No. 101165-0	NY-DOH No. 11021	AIHA-LAP, LLC No. 100188
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Analytical Method	EPA 600/R-93/116
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Comments:	(PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (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. 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.
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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530382	Description / Location:	Off-White Sheetrock; E.WallOfJanitor's	
Client No.:	MD1712-A20		StorageRm,S.CorridorToGirl'sLockerRm	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	Trace	Cellulose	95
		5	Fibrous Glass	

Lab No.:	4530383	Description / Location:	Off-WhiteJointCompound;N.WallOfJanitor's	
Client No.:	MD1712-A21		StorageRm,S.CorridorToGirl'sLockerRm	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 1.6	Chrysotile	None Detected	None Detected	PC 98.4

Lab No.:	4530384	Description / Location:	Brown Cove Base Mastic	
Client No.:	MD1712-A22		S.Wall Of Corridor To Girl's Locker 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	Trace	Wollastonite	100

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530385	Description / Location:	Tan Cove Base; N.Wall Of Janitor's	
Client No.:	MD1712-A23		StorageRm,S.CorridorTo Girl's Locker 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.:	4530385	Description / Location:	Brown Mastic	Layer No.: 2
Client No.:	MD1712-A23		StorageRm,S.CorridorTo Girl's Locker 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.:	4530386	Description / Location:	Off-White Sheetrock; S.Wall Of Storage	
Client No.:	MD1712-A24		Rm N. Of Weight Rm At Gymnasium	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	Trace	Cellulose	95
		5	Fibrous Glass	

Lab No.:	4530387	Description / Location:	White Wall Texture; E.Wall Of Storage	
Client No.:	MD1712-A25		Rm, N. Of Weight Rm At Gymnasium	
<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

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530388	Description / Location:	White Wall Texture; N.Wall Of Storage	
Client No.:	MD1712-A26		Rm, N. Of Weight Rm At Gymnasium	
<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.:	4530389	Description / Location:	White Joint Compound; NE Exit Of	
Client No.:	MD1712-A27		StorageRm, N. Of Weight Rm At Gymnasium	
<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.:	4530389	Description / Location:	White Texture	Layer No.:	2
Client No.:	MD1712-A27		StorageRm, N. Of Weight Rm At Gymnasium		
<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.:	4530390	Description / Location:	Tan Cove Base Mastic; S. Wall Of	
Client No.:	MD1712-A28		StorageRm, N. Of Weight Rm At Gymnasium	
<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

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530391	Description / Location:	Off-White Ceiling Tile; NW Corner Of	
Client No.:	MD1712-A29		StorageRm, N. Of Weight Rm At Gymnasium	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	50	Cellulose	50

Lab No.:	4530392	Description / Location:	Tan Wall Panel Mastic	
Client No.:	MD1712-A30		North Wall Of Gymnasium	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 2.5	Chrysotile	None Detected	None Detected	PC 97.5

Lab No.:	4530392	Description / Location:	Tan Paper	Layer No.:	2
Client No.:	MD1712-A30		North Wall Of Gymnasium		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	90	Cellulose	10	

Lab No.:	4530393	Description / Location:	White/Tan Sheetrock	
Client No.:	MD1712-A31		South Wall Of NE Boy's Restroom	
<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	95
		3	Fibrous Glass	

Accreditations:	NIST-NVLAP No. 101165-0	NY-DOH No. 11021	AIHA-LAP, LLC No. 100188
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Analytical Method	EPA 600/R-93/116
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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530394	Description / Location:	Yellow/Tan Ceramic Tile Mastic	
Client No.:	MD1712-A32		North Wall Of NE Boy's Restroom	
<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.:	4530395	Description / Location:	Grey Rubber	
Client No.:	MD1712-A33		North Corridor Leading To Shop	
<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.:	4530395	Description / Location:	Yellow Mastic	Layer No.: 2
Client No.:	MD1712-A33		North Corridor Leading To Shop	
<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.:	4530396	Description / Location:	Off-White Joint Compound	
Client No.:	MD1712-A34		North Wall Of Corridor Leading To Shop	
<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

Accreditations:	NIST-NVLAP No. 101165-0	NY-DOH No. 11021	AIHA-LAP, LLC No. 100188
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Analytical Method	EPA 600/R-93/116
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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530397	Description / Location:	Yellow Wall Panel Mastic	
Client No.:	MD1712-A35		North Wall Of Corridor Leading To Shop	
<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.:	4530398	Description / Location:	White Joint Compound	
Client No.:	MD1712-A36		SE Corner Of IT 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	None Detected	None Detected	100

Lab No.:	4530399	Description / Location:	Off-White/Grey Vinyl Sheet Flooring	
Client No.:	MD1712-A37		SE Corner Of IT Inside Entrance	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	5	Fibrous Glass	90
		5	Synthetic	

Accreditations:	NIST-NVLAP No. 101165-0	NY-DOH No. 11021	AIHA-LAP, LLC No. 100188
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Analytical Method	EPA 600/R-93/116
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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530400	Description / Location:	Off-White/Grey Vinyl Sheet Flooring	
Client No.:	MD1712-A38		Entrance To Office #1, IT 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	5	Fibrous Glass	90
		5	Synthetic	

Lab No.:	4530400	Description / Location:	Yellow/Black Mastic	Layer No.:	2
Client No.:	MD1712-A38		Entrance To Office #1, IT Room		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
PC 1.5	Chrysotile	None Detected	None Detected	PC 98.5	

Lab No.:	4530401	Description / Location:	Tan Carpet		
Client No.:	MD1712-A39		Entrance To Office #1, IT 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	95	Synthetic	5	

Lab No.:	4530401	Description / Location:	Yellow/Black Mastic	Layer No.:	2
Client No.:	MD1712-A39		Entrance To Office #1, IT Room		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
PC 1.7	Chrysotile	None Detected	None Detected	PC 98.3	

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4530402

Client No.: MD1712-A40

Description / Location:

Tan Carpet Mastic

East Wall, Entrance To IT

% AsbestosType% Non-Asbestos Fibrous MaterialType% Non-Fibrous Material

None Detected

None Detected

None Detected

None Detected

100

Lab No.: 4530402

Client No.: MD1712-A40

Description / Location:

White Joint Compound

East Wall, Entrance To IT

Layer No.: 2

% AsbestosType% Non-Asbestos Fibrous MaterialType% Non-Fibrous Material

None Detected

None Detected

None Detected

None Detected

100

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530403	Description / Location:	Grey Cove Base	
Client No.:	MD1712-A41		East Storage Room Of Shop	
<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.:	4530403	Description / Location:	Brown Mastic	Layer No.:	2
Client No.:	MD1712-A41		East Storage Room Of Shop		
<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.:	4530403	Description / Location:	White Joint Compound	Layer No.:	3
Client No.:	MD1712-A41		East Storage Room Of Shop		
<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.:	4530404	Description / Location:	Off-White Ceiling Tile	
Client No.:	MD1712-A42		Middle Of Shop	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	50	Cellulose	50

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

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Analytical Method

EPA 600/R-93/116

Comments:

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530405	Description / Location:	White Wall Texture	
Client No.:	MD1712-A43		South Half Of Music 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	None Detected	None Detected	100

Lab No.:	4530406	Description / Location:	White Sheetrock	
Client No.:	MD1712-A44		South Half Of Music 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	Trace	Cellulose	95
		5	Fibrous Glass	

Lab No.:	4530407	Description / Location:	White Wall Texture	
Client No.:	MD1712-A45		North Wall Of Music 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	None Detected	None Detected	100

Lab No.:	4530407	Description / Location:	Yellow Mastic	Layer No.: 2
Client No.:	MD1712-A45		North Wall Of Music 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	None Detected	None Detected	100

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530408	Description / Location:	Black Wall Panel Mastic
Client No.:	MD1712-A46		North Wall Of NE Janitor's Storage Rm
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	4530409	Description / Location:	Off-White Insulation; Above Ceiling Of
Client No.:	MD1712-A47		NE Janitor's Storage Rm 2" Pipe Elbow
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
10	Chrysotile	Trace	Cellulose
		15	Fibrous Glass
			75

Lab No.:	4530410	Description / Location:	Off-White Insulation; Above Ceiling Of
Client No.:	MD1712-A48		NE Janitor's Storage Rm 4" Pipe Elbow
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
10	Chrysotile	Trace	Cellulose
		15	Fibrous Glass
			75

Lab No.:	4530411	Description / Location:	Grey Transit; E. Wall Of Equipment
Client No.:	MD1712-A49		Room At End Of Corridor Behind Kitchen
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
20	Chrysotile	None Detected	None Detected
			80

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method EPA 600/R-93/116

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Analysis Performed By: L. Solebello

Date: 1/17/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530412	Description / Location:	Tan Vinyl Sheet Flooring; Room 220	
Client No.:	MD1712-A50		SW Corner Of Room,NearEntrance,1stFloor	
<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.:	4530412	Description / Location:	Yellow Mastic		Layer No.:	2
Client No.:	MD1712-A50		SW Corner Of Room,NearEntrance,1stFloor			
<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.:	4530413	Description / Location:	White Joint Compound; Room 220			
Client No.:	MD1712-A51		SW Corner Of Room,NearEntrance,1stFloor			
<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.:	4530414	Description / Location:	Pink Mastic; StorageRoomOff Intensive			
Client No.:	MD1712-A52		IClassroom,SECornerOfStorageRm,1stFl			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>		
PC 4.4	Chrysotile	None Detected	None Detected	PC 95.6		

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

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Date: 1/17/2012

CERTIFICATE OF ANALYSIS

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	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530415	Description / Location:	Tan Mastic; StorageRoomOff Intensive	
Client No.:	MD1712-A53		IClassroom,SECornerOfStorageRm,1stFl	
<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.:	4530416	Description / Location:	Brown Mastic; StorageRmCeilingOff	
Client No.:	MD1712-A54		IntensiveIClassroom,SWCornerOfStorageRm	
<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	Other	98

Lab No.:	4530417	Description / Location:	White Leveling Compound	
Client No.:	MD1712-A55		Entrance To Elevator, 1st Floor	
<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.:	4530417	Description / Location:	Yellow/Black Mastic	Layer No.: 2
Client No.:	MD1712-A55		Entrance To Elevator, 1st Floor	
<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

Accreditations:

NIST-NVLAP No. 101165-0

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Analytical Method

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Date: 1/17/2012

CERTIFICATE OF ANALYSIS

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	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530418	Description / Location:	Lt.Grey Floor Tile; Janitor's Storage	
Client No.:	MD1712-A56		Room Next To Elevator, 1st Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 2.5	Chrysotile	None Detected	None Detected	PC 97.5

Lab No.:	4530418	Description / Location:	Yellow/Black Mastic	Layer No.: 2
Client No.:	MD1712-A56		Room Next To Elevator, 1st Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 1.8	Chrysotile	None Detected	None Detected	PC 98.2

Lab No.:	4530419	Description / Location:	Grey Insulation; Mechanical Rm Behind	
Client No.:	MD1712-A57		Janitor'sStorageRmBy Elevator, 1st Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
60	Chrysotile	20	Cellulose	20

Lab No.:	4530420	Description / Location:	Grey Insulation; Mechanical Rm Behind	
Client No.:	MD1712-A58		Janitor'sStorageRmBy Elevator, 1st Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
50	Chrysotile	30	Cellulose	20

Accreditations:	NIST-NVLAP No. 101165-0	NY-DOH No. 11021	AIHA-LAP, LLC No. 100188
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Analytical Method	EPA 600/R-93/116
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Analysis Performed By: L. Solebello

Date: 1/18/2012

CERTIFICATE OF ANALYSIS

Client: Nortech Env'l & Engineering

2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530421	Description / Location:	Black/Brown Fibrous; Mechanical Rm Behin		
Client No.:	MD1712-A59		Janitor's Storage Rm By Elevator, 1st Floor		
% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material	
None Detected	None Detected	75	Cellulose	25	

Lab No.:	4530422	Description / Location:	Grey Fibrous; Mechanical Rm Behind		
Client No.:	MD1712-A60		Janitor's Storage Rm By Elevator, 1st Floor		
% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material	
None Detected	None Detected	60	Fibrous Glass	40	

Lab No.:	4530423	Description / Location:	Black Fibrous; Mechanical Rm Behind		
Client No.:	MD1712-A61		Janitor's Storage Rm By Elevator, 1st Floor		
% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material	
None Detected	None Detected	50	Fibrous Glass	50	

Lab No.:	4530424	Description / Location:	White Joint Compound		
Client No.:	MD1712-A62		Room 229, SW Corner, 1st Floor		
% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material	
None Detected	None Detected	None Detected	None Detected	100	

Accreditations:

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Analytical Method

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Date: 1/18/2012

CERTIFICATE OF ANALYSIS

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2400 College Rd

Fairbanks

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Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530425	Description / Location:	White Leveling Compound	
Client No.:	MD1712-A63		Room 229,South Middle Of Rm229,1st Floor	
<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.:	4530425	Description / Location:	Yellow Mastic	Layer No.:	2
Client No.:	MD1712-A63		Room 229,South Middle Of Rm229,1st Floor		
<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.:	4530426	Description / Location:	Off-White Sheetrock;Behind HeatRegister		
Client No.:	MD1712-A64		Rm232,NWCorner,1stFl(ExteriorWall)1stFl		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	3	Cellulose	95	
		2	Fibrous Glass		

Lab No.:	4530427	Description / Location:	White Joint Compound; Below WindowOf		
Client No.:	MD1712-A65		Rm232,NWCorner,AboveHeatRegisterExtWall		
<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	

Accreditations:

NIST-NVLAP No. 101165-0

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Analytical Method

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Date: 1/18/2012

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2400 College Rd

Fairbanks

AK

99709

Report Date: 1/18/2012

Report No.: 261447

Project: Maire Drake Middle School

Project No.: 12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 4530428

Client No.: MD1712-A66

Description / Location:

Off-White Insulation; North Wall Of

Rm 232, At Pipe Access Panel, 1st Floor

% AsbestosType% Non-Asbestos Fibrous MaterialType% Non-Fibrous Material

10

Chrysotile

15

Fibrous Glass

75

Lab No.: 4530428

Client No.: MD1712-A66

Description / Location:

Grey Wrap

Rm 232, At Pipe Access Panel, 1st Floor

Layer No.: 2

% AsbestosType% Non-Asbestos Fibrous MaterialType% Non-Fibrous Material

None Detected

None Detected

80

Cellulose

20

Accreditations:

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CERTIFICATE OF ANALYSIS

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	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530429	Description / Location:	Lt.Grey Floor Tile	
Client No.:	MD1712-A67		Room 232,NE CornerNearEntrance,1st Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 1.2	Chrysotile	None Detected	None Detected	PC 98.8

Lab No.:	4530429	Description / Location:	Black Mastic	Layer No.: 2
Client No.:	MD1712-A67		Room 232,NE CornerNearEntrance,1st Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 3.5	Chrysotile	None Detected	None Detected	PC 96.5

Lab No.:	4530429	Description / Location:	Yellow Mastic	Layer No.: 3
Client No.:	MD1712-A67		Room 232,NE CornerNearEntrance,1st Floor	
<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

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

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Date: 1/18/2012

CERTIFICATE OF ANALYSIS

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	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530430	Description / Location:	Off-White/Grey Floor Tile
Client No.:	MD1712-A68		SE Office Off South EndOfRm232,1st Floor
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 1.4	Chrysotile	None Detected	None Detected
			PC 98.6

Lab No.:	4530430	Description / Location:	Black Mastic	Layer No.:	2
Client No.:	MD1712-A68		SE Office Off South EndOfRm232,1st Floor		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
PC 3.7	Chrysotile	None Detected	None Detected	PC 96.3	

Lab No.:	4530431	Description / Location:	Pink/Grey Mastic
Client No.:	MD1712-A69		SE Office Off South EndOfRm232,1st Floor
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 4.1	Chrysotile	None Detected	None Detected
			PC 95.9

Lab No.:	4530432	Description / Location:	Black Mastic
Client No.:	MD1712-A70		Room 236, East Wall, 1st Floor
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 2.5	Chrysotile	None Detected	None Detected
			PC 97.5

Accreditations:	NIST-NVLAP No. 101165-0	NY-DOH No. 11021	AIHA-LAP, LLC No. 100188
<i>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</i>			
<i>This report shall not be reproduced except in full, without written approval of the laboratory.</i>			

Analytical Method	EPA 600/R-93/116
--------------------------	------------------

Comments:	(PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (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. 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.
------------------	--

Analysis Performed By: L. Solebello

Date: 1/18/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530433	Description / Location:	Yellow Mastic	
Client No.:	MD1712-A71		Boys Restroom, 1st Floor	
<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.:	4530433	Description / Location:	White Ceramic Tile	Layer No.: 2
Client No.:	MD1712-A71		Boys Restroom, 1st Floor	
<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.:	4530434	Description / Location:	White/Grey Floor Tile	
Client No.:	MD1712-A72		Room 242, South Middle, 1st Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 1.3	Chrysotile	None Detected	None Detected	PC 98.7

Lab No.:	4530435	Description / Location:	White/Tan Fibrous	
Client No.:	MD1712-A73		Elevator Coach, Basement	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	80	Cellulose	20

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

Comments:

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Analysis Performed By: L. Solebello

Date: 1/18/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530436	Description / Location:	White/Tan Fibrous
Client No.:	MD1712-A74		Elevator Coach, Basement
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	80	Cellulose
			20

Lab No.:	4530437	Description / Location:	Yellow/Tan Carpet Mastic
Client No.:	MD1712-A75		Elevator Coach, Basement
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	4530438	Description / Location:	Grey Cementitious
Client No.:	MD1712-A76		Elevator Shaft, Basement
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	4530439	Description / Location:	Grey Insulation; Maintenance Room
Client No.:	MD1712-A77		Nearest To Elevator Shaft, Basement
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
60	Chrysotile	20	Cellulose
			20

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (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. 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.

Analysis Performed By: L. Solebello

Date: 1/18/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530440	Description / Location:	Off-White/Tan Vinyl Sheet Flooring	
Client No.:	MD1712-A78		Room 309,NE Corner Near Entrance,2ndFlr	
<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	20

Lab No.:	4530440	Description / Location:	Yellow/Black Mastic	Layer No.:	2
Client No.:	MD1712-A78		Room 309,NE Corner Near Entrance,2ndFlr		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
PC 0.75	Chrysotile	15	Fibrous Glass	85	

Lab No.:	4530441	Description / Location:	Black Mastic	
Client No.:	MD1712-A79		Room 311,South Wall, 2nd Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 2.3	Chrysotile	None Detected	None Detected	PC 97.7

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

Comments:

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Analysis Performed By: L. Solebello

Date: 1/18/2012

CERTIFICATE OF ANALYSIS

Client:	Nortech Env'l & Engineering	Report Date:	1/18/2012
	2400 College Rd	Report No.:	261447
	Fairbanks AK 99709	Project:	Maire Drake Middle School
		Project No.:	12-1002J

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	4530442	Description / Location:	Off-White/Grey; NE Corner Of	
Client No.:	MD1712-A80		Janitor'sStorageRmNearElevator,2nd Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 1.5	Chrysotile	None Detected	None Detected	PC 98.5

Lab No.:	4530442	Description / Location:	Black Mastic	Layer No.: 2
Client No.:	MD1712-A80		Janitor'sStorageRmNearElevator,2nd Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 3.6	Chrysotile	None Detected	None Detected	PC 96.4

Lab No.:	4530443	Description / Location:	White Wall Texture	
Client No.:	MD1712-A72		Additional Sample Received	
<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

Accreditations:

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA-LAP, LLC No. 100188

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Analytical Method

EPA 600/R-93/116

Comments:

(PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents this limit of quantitation. (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. 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.

Analysis Performed By: L. Solebello

Date: 1/18/2012



ENVIRONMENTAL ENGINEERING & INDUSTRIAL HYGIENE

Anchorage: 3105A Lakeshore Dr., #A106, 99517 907.222.2445 Fax: 222.0915

Fairbanks: 2400 College Rd, 99709 907.452.5688 Fax: 452.5694

Juneau: 119 Seward St. #10, 99801 907.586.6813 Fax: 463.2550

info@nortechengr.com

www.nortechengr.com

Appendix D

Previous Assessment Work by Others

DEPARTMENT OF EDUCATION

OFFICE OF THE COMMISSIONER

GROFFSLEY PLACE
801 WEST 10TH STREET
P.O. BOX 6
JUNEAU, ALASKA 99801-0506

March 13, 1989

Lon Hadfield
Juneau School District
10014 Crazy Horse Drive
Juneau, Alaska 99801

Dear Mr. Hadfield:

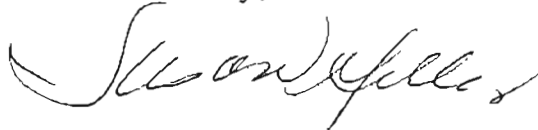
The Department of Education has reviewed the Management Plan submitted by the Juneau School District for Marie Drake School for compliance with the regulations of the Asbestos Hazard Emergency Response Act (AHERA). The Department finds this report to be complete under the requirements of AHERA and, therefore; finds no reason to disapprove the plan as submitted.

You should be aware that this action does not absolve the Juneau School District from it's responsibility under AHERA. The Environmental Protection Agency or other State and/or Federal Agencies with jurisdiction over this program may still determine, through on site or other investigative processes, that the LEA is violating the AHERA regulations. It will be the responsibility of the Juneau School District to correct any violations of AHERA that may be discovered at that time.

This action only applies to compliance with the technical requirements of AHERA. It does not imply that the Department will endorse or support any of the recommended response actions.

If you have any questions or need further information, please do not hesitate to contact me at 465-2865.

Sincerely,



Susan Miller
Project Assistant
Facilities

cc: Tom Carson, Management Planner

SCHOOL MANAGEMENT PLAN
ASBESTOS HAZARD EMERGENCY RESPONSE ACT
MARIE DRAKE MIDDLE SCHOOL

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SECTION I

COVER SHEET TRANSMITTAL FORM

SECTION I

COVER SHEET TRANSMITTAL FORM

1.1 Date: October 12, 1988

1.2 Approval Deadline Date: October 12, 1988

1.3 School

Type of LEA: Public
Name: Marie Drake Middle School
District: Juneau School District
County: City and Borough of Juneau
Address: 10014 Crazy Horse Drive
City: Juneau
State: Alaska
Zip: 99801

1.4 Superintendent

Name: Dr. Bruce Johnson
Address: 10014 Crazy Horse Drive
City: Juneau
State: Alaska
Zip: 99801
Telephone: 907-586-2303

1.5 Principal

Name: Sharla Wright
Address: 1415 Glacier Avenue
City: Juneau
State: Alaska
Zip: 99801
Telephone: 586-3780

1.6 Enrollment/Staff

Students: 427
Faculty/Administration: 36
Custodial Staff: 4
Maintenance Staff: 17 People District Wide

1.7 Building Inspector

Name: Thomas G. Carson
Business Affiliation: Consultant - James M. Montgomery
Consulting Engineers
Address: 712 W. 12th Street
City: Juneau
State: Alaska
Zip: 99801

: Tufts University
(#8807-02-009)
Date of Accreditation: January 14, 1988
State/EPA Approval: Massachusetts/Approved for Alaska
Refresher Course: Current Accreditation expires Jan. 13,
1989

1.8 Management Planner

Name: Thomas G. Carson
Business Affiliation: Consultant - James M. Montgomery
Consulting Engineers
Address: 712 W. 12th Street
City: Juneau
State: Alaska
Zip: 99801
Accreditation Course: Tufts Univ., Boston (#8807-02-092)
Date of Accreditation: Jan. 14, 1988
State/EPA Approval: Massachusetts/Approved for Alaska
Refresher Course: Current Accreditation expires Jan. 13,
1989
Telephone: 907-586-4447

1.9 Signature Page

Superintendent:

Principal:

Designated Person:



Management Planner:

Inspector:

1.10 Certification Statement

For persons who performed inspections, and recommend(ed) design, or carry out response actions (except for operations and maintenance) the local education agency used or will use persons who have been accredited by a state which has adopted a contractor accreditation plan under section 206(b) of Title II of the Act or is accredited by an EPA-approved course under section 206(c) of Title II of the Act. In addition, the LEA has considered whether any conflict of interest may arise from the interrelationship among accredited personnel, such as abatement activities performed by an inspector or management planner, and whether that should influence the selection of accredited personnel to perform activities under this AHERA program.

The signatories below certify that the general local education agency responsibilities, as stipulated by Part 763.84 have been met or will be met.

Signature: <u></u>	<u>Joseph A. Moeller</u>	Date: <u>2/6/89</u>
LEA AHERA Designee	Typed Name	
Signature: <u></u>	<u>Bruce F. Johnson</u>	Date: <u>3/13/89</u>
LEA Superintendent	Typed Name	

Tufts University

Thomas G. Carson

Has attended and satisfactorily passed
an examination covering the contents of the course:

"Asbestos Abatement for Management Planners"

conducted by the

Asbestos Information Center
Center for Environmental Management

8807 - 02 - 092
Certificate Number

January 14 - 15, 1988
Date of Course

January 15, 1989
Expiration Date



Grada Cole
Training and Education Coordinator

Anthony D. Cortese
Director
Center For Environmental Management

Tufts University

Thomas G. Carson

*Has attended and satisfactorily passed
an examination covering the contents of the course:*

**“Asbestos Abatement
for Inspectors”**

conducted by the

**Asbestos Information Center
Center for Environmental Management**

8801-02-009

Certificate Number

January 11-13, 1988

Date of Course

January 13, 1989

Expiration Date



Spence Cole

Training and Education Coordinator

Anthony D. Cortese

Director

Center For Environmental Management

SECTION II

LEA DESIGNATED PERSON TRAINING DOCUMENTATION

SECTION II

LEA DESIGNATED PERSON TRAINING DOCUMENTATION

2.1 LEA Designated Person

Name and Title: Joe Mueller
Address: 10014 Crazy Horse Drive
City: Juneau
State: Alaska
Zip: 99801
Telephone: 907-789-7001

2.2 Asbestos Training

Course Name: Asbestos Abatement
Dates of Training: May 3-6, 1985
Hours of Training: 32 Hours
Training Verification: Copy of Course Purchase Order
Attached
Other Related Courses: ---

2.3 Official Notification - Copies Attached



JUNEAU SCHOOL DISTRICT

CITY AND BOROUGH OF JUNEAU

10014 CRAZY HORSE DRIVE • JUNEAU, ALASKA 99801-8529 • (907) 586-2303

M E M O R A N D U M

TO: Joe Mueller, Senior Maintenance Mechanic
FROM: Lon Hadfield, Maintenance Supervisor *LH*
SUBJECT: Asbestos
DATE: September 20, 1988

The Juneau School District is required to come into compliance with the Asbestos Hazard Emergency Response Act. A portion of this act requires that each educational institution appoint a person to oversee the initial development of a management plan and it's implimentation, educate and train maintenance and custodial personnel, and see that the School District stays in compliance with all aspects of the A.H.E.R.A. Regulation.

You have been selected to carry out these responsibilities. We will be looking at your job description as things develop and reassign some of your current responsibilities.

I am confident that you will find this assignment a challenge and I look forward to working with you in developing a management plan.

cc: Bruce Johnson
Laraine Glenn
Personnel File ✓

CITY & BOROUGH OF JUNEAU SCHOOL DISTRICT
10014 CRAZY HORSE DRIVE
JUNEAU, ALASKA 99801

THIS NUMBER MUST
APPEAR ON YOUR INVOICE

No. PO

187

VENDOR NO.

212000

TO: UNIVERSITY OF ALASKA
ATTN: CASHIER/BUSINESS OFFICE
11100 GLACIER HWY
JUNEAU, AK 99801

SHIP TO: MAINTENANCE
ATTN: LON HARTFIELD
JUNEAU SCHOOL DISTRICT
10014 CRAZY HORSE DR.
JUNEAU, AK 99801
(907) 781-7001

PO Date: 4/28/85 Required: 4/28/85 Ref: SEMINAR Req #: 000005775

QUANTITY	U/M DESCRIPTION / PART NUMBER	DISCOUNT	UNIT PRICE	TOTAL
3	EA MAINTENANCE PERSONNEL ATTENDING COURSE: "ASBESTOS ABATEMENT" AT MARINE TECH. BUILDING, ROOM #217 & #218. FOUR TOTAL DAYS ON MAY 3, 4, 5, & 6 8:30 A.M. THROUGH 4:30 P.M. EMPLOYEES ATTENDING: SCOTT BAILEY FRED WILSON JOE MUELLER		490.00	1470.0

TOTAL

1470.0

ACCOUNT
01.98.600.000.446

AMOUNT
1,470.00

APPROVED FOR
PAYMENT

IX EXEMPT. PER CITY & BOROUGH OF JUNEAU
LASKA CHARTER, CHAPTER & SECTION 69.05.040
IX Exempt No. 92-6000101

Terms and Conditions of Purchase Attached

AUTHORIZING SIGNATURE

SECTION III

SCHOOL BUILDINGS

SECTION III

SCHOOL BUILDINGS

3.1 Building Identification

Owner: Juneau School District
Building Name: Marie Drake Middle School
Building Number: ---
Street Address: 1415 Glacier Avenue
City: Juneau
State: Alaska
Zip: 99801
Grade Span: 6-8
Building Size (Total Gross Square Feet): 72,134 SF
Year Built/Added to/Modernized: Originally built 1968,
Library Addition and Classroom Renovation 1985.
Principal Name: Sharla Wright
Building Telephone Number: 907-586-3780
Friable and/or Suspect Friable ACBM Present in Building: NO
Non-Friable and/or Suspect Non-Friable ACBM Present in
Building: YES

SECTION IV

PRIOR INSPECTIONS

SECTION IV

PRIOR INSPECTIONS (PRE 14 DEC 1987)

- 4.1 School: Marie Drake Middle School
- 4.2 Date of Most Recent Inspection: November 1984
- 4.3 Inspector(s), Previous

Name: The Pickering Firm
Business Affiliation: Consultant
Address: 821 S. Barksdale
City: Memphis
State: Tennessee
Zip: 38114
Telephone: 901-726-0810
Accreditation: ---

4.4 Scope of Inspection

Friable ACBM only

4.5 Inspection Results

Attached at the end of this section is an excerpt from the Pickering Report pertaining to the school complete with applicable backup such as summary sheets, cost estimates and lab results as performed by McCrone Environmental Services.

4.6 Response Actions

An abatement project was completed by Asbestos Removal Specialists of Alaska between June and October 1988 primarily in response to the Pickering Report.

As part of that project, the following was accomplished:

- a) Boiler Room: All thermal system and miscellaneous ACM removed and replaced.
- b) Kitchen: All exposed thermal system ACM was removed.
- c) Basement area other than Boiler Room: All thermal system ACM in the basement was removed except:
 - 1) Maintenance Store room to left of stairs (Room 110) - no abatement occurred in this space.
 - 2) Custodial Store room to right of stairs (Room 102) - a pipe chase in the ceiling serving the Boys Restroom above was not abated. All other thermal system ACM in this space was removed.

Attached at the end of this section is a summary of this entire project complete with air sampling results.

PICKERING REPORT EXCERPT

Exposure risks are to students, teachers, and maintenance personnel. The Pickering Firm, Inc. recommends removal of all identified asbestos materials from Harborview Elementary School.

JUNEAU DOUGLAS HIGH SCHOOL

Asbestos-containing ceiling materials are located in the restrooms near Room B108; the restroom near Room A120; the restrooms near student commons; the restrooms near Room A217 and the old elevator shaft near Room C126. Asbestos pipe insulation is located in a utility tunnel of which most appears to be abandoned. Exposure risks are to maintenance personnel, teachers and students. The Pickering Firm, Inc. recommends removal of all asbestos materials from Juneau Douglas High School.

MARIE DRAKE JR. HIGH SCHOOL

Asbestos pipe insulation is located in the following areas: boiler room, Room 227, Room 223, Room 425, Room 110, Room 102 and Room 111. Cement asbestos board is utilized as a wall material in Room 435. In it's present form, no exposure problem is occurring, however, if sawing or breaking of the wall board takes place, as exposure hazard occurs. Asbestos boiler and tank insulation is located in the boiler room. There are two (2) boilers measuring approximately 8' tall X 10' long X 6' wide with one (1) tank measuring approximately 6' diameter by 12' tall. The Pickering Firm, Inc. recommends removal of all asbestos materials located in Marie Drake Jr. High School.

MENDEHNALL RIVER ELEMENTARY SCHOOL

No suspect materials were observed at this school.

JUNEAU SCHOOL DISTRICT
FINDINGS AND RECOMMENDATIONS CHART

SAMPLE NUMBER	SCHOOL	SAMPLE LOCATION	MATERIAL SAMPLED	SAMPLE ANALYSIS	RECOMMENDATION
JK31	Harborview	Mechanical Room #19	Pipe Fittings	Negative	No Action Required
JK32	Marie Drake	Boiler Room	Boiler Insulation	7% Chrysotile 30% Amosite	Removal
JK33	Marie Drake	Boiler Room	Boiler Insulation	3% Chrysotile 40% Amosite	Removal
JK34	Marie Drake	Boiler Room	Tank Insulation	4% Chrysotile 32% Amosite	Removal
JK35	Marie Drake	Boiler Room	Tank Insulation	8% Chrysotile 25% Amosite	Removal
JK36	Marie Drake	Boiler Room	Pipe Run	10% Chrysotile 35% Amosite	Removal
JK37	Marie Drake	Boiler Room	Pipe Run	8% Chrysotile 26% Amosite	Removal
JK38	Marie Drake	Boiler Room	Pipe Fittings	25% Chrysotile 20% Amosite	Removal
JK39	Marie Drake	Boiler Room	Pipe Fittings	20% Chrysotile 15% Amosite	Removal
JK40	Marie Drake	Boiler Room	Valve Insulation	20% Chrysotile 25% Amosite	Removal

JUNEAU SCHOOL DISTRICT
FINDINGS AND RECOMMENDATIONS CHART

SAMPLE NUMBER	SCHOOL	SAMPLE LOCATION	MATERIAL SAMPLED	SAMPLE ANALYSIS	RECOMMENDATION
JK41/	Marie Drake	Room #425	Pipe Fittings	12% Chrysotile	Removal
JK42/	Marie Drake	Room #425	Pipe Fittings	25% Chrysotile	Removal
JK43	Juneau Douglas	Vestibule near Room A120	Ceiling Plaster	Negative	No Action Required
JK44	Juneau Douglas	Storage Area near Room C120	Fire Proofing	Negative	No Action Required
JK45	Juneau Douglas	Storage Area near Room C120	Fire Proofing	Negative	No Action Required
JK46)	Juneau Douglas	Old Elevator Shaft near Room C126	Acoustical Plaster	4% Chrysotile	Removal
JK47	Juneau Douglas	Tunnel	Pipe Fittings	5% Chrysotile 30% Amosite 10% Crocidolite	Removal
JK48	Juneau Douglas	Tunnel	Pipe Run (Abandoned)	22% Chrysotile 23% Amosite	Removal
JK49	Juneau Douglas	Room B113	Tank Insulation	Negative	No Action Required
JK50	Juneau Douglas	Room B113	Pipe Run	Negative	No Action Required

Gastineau Elementary School (Con't)

Replacement Cost

371 S.F. tank insulation @	=	8,904.00
\$24.00/S.F.	=	4,914.00
117 pipe fittings @ \$42.00/ea	=	
Total Replacement Cost	=	<u>\$13,818.00</u>

Glacier Valley

1 type "C" @ \$12,000.00/ea	=	\$12,000.00
214 S.F. tank insulation	=	
@ \$42.00/S.F.	=	8,988.00
2904/S.F. ceiling removal	=	
@ \$15.00/S.F.	=	43,560.00
340 fittings @ \$42.00/ea	=	14,280.00
Total Removal Cost	=	<u>\$78,828.00</u>

Replacement Cost

214 S.F. tank insulation	=	
@ \$24.00/S.F.	=	\$ 5,136.00
2904/S.F. ceiling material	=	
@ \$4.50/S.F.	=	13,068.00
340 fittings @ \$42.00/ea	=	14,280.00
Total Replacement Cost	=	<u>\$32,484.00</u>

Marie Drake Jr. High School

1 type "C" @ \$12,000.00	=	\$12,000.00
283 S.F. tank removal	=	
@ \$42.00/S.F.	=	11,886.00
560 S.F. boiler removal	=	
@ \$42.00/S.F.	=	23,520.00
488 L.F. Pipe runs	=	
@ \$22.50/L.F.	=	10,980.00
358 pipe fittings @ \$42.00/ea	=	15,036.00
8 (4'X8') sheets C.A.B.	=	
@ \$48.00/ea.	=	384.00
Total Removal Cost	=	<u>\$73,806.00</u>

Replacement Cost

283 S.F. tank insulation	=	
@ \$24.00/S.F.	=	\$ 6,792.00
560 S.F. boiler insulation	=	
@ \$24.00/S.F.	=	13,440.00
488 L.F. pipe insulation	=	
@ \$22.50/L.F.	=	10,980.00
358 Pipe fittings @ \$42.00/ea	=	15,036.00
256 S.F. wallboard @ \$4.50/S.F.	=	1,152.00
Total Replacement Cost	=	<u>\$47,400.00</u>

ESTIMATED PROJECT TOTALS

SCHOOL	REMOVAL	REPLACEMENT	ESTIMATED AIR MONITORING FEES SEE NOTE 1	ENGINEERING FEES SEE NOTE 2	SCHOOL TOTAL
Auke Bay	\$ 30,639.00	\$ 17,448.00	\$ 4,500.00	\$ 5,258.70	\$ 57,845.70
Capitol	\$ 19,542.00	\$ 4,524.00	\$ 2,500.00	\$ 2,656.60	\$ 29,222.60
Floyd Dryden	\$ 33,450.00	\$ 14,154.00	\$ 5,000.00	\$ 5,260.40	\$ 57,864.40
Gastineau	\$ 32,496.00	\$ 13,818.00	\$ 5,000.00	\$ 5,131.40	\$ 56,445.40
Glacier Valley	\$ 78,828.00	\$ 32,484.00	\$10,000.00	\$12,131.20	\$133,443.20
Marie Drake	\$ 73,806.00	\$ 47,400.00	\$ 9,000.00	\$13,020.60	\$143,226.60
Harborview	\$ 39,342.00	\$ 39,726.00	\$ 5,000.00	\$ 8,406.80	\$ 92,474.80
Juneau Douglas	\$ 90,090.00	\$ 10,152.00	\$11,500.00	\$11,174.20	\$122,916.20
Project Totals	\$398,193.00	\$179,706.00	\$52,500.00	\$63,039.90	\$693,438.90

NOTE 1: Air Monitoring costs are based on an industry average of \$500.00/day of construction.

NOTE 2: Engineering fees are calculated to be approximately ten (10%) percent of construction costs including air monitoring.

McCRONE ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
5500 Oakbrook Parkway
Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/05/84

Project Name : Juneau AK Samples/Juneau AK

Client : thru The Pickering Firm/Memphis TN

Client's Sample I.D. : JK 32 M.E. Sample I.D. No. : 8847

Gross Visual Description : Grey Powdery and Fibrous Material

ASBESTOS MINERALS:

Estimated Percentage

1 . Chrysotile	-	-	-	-	-	7
2 . Amosite	-	-	-	-	-	30
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						37

Cellulose

Paper/Wood Fibers	-	-	-	-	-	3
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Glass Fibers

Mineral Wool Fibers

Perlite

Mica

Binders

Binders	-	-	-	-	-	58
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Others

Granular Minerals	-	-	-	-	-	2
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Total 100

Comments :

Microscopist : Thomas G. Laubenthal

McCRONE ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
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Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/05/84
Project Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 33 M.E. Sample I.D. No. : 8848
Gross Visual Description : Brownish Fibrous Powder

ASBESTOS MINERALS: Estimated Percentage

1 . Chrysotile	-	-	-	-	-	3
2 . Amosite	-	-	-	-	-	40
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						43

Cellulose						
Paper/Wood Fibers						
Glass Fibers						
Mineral Wool Fibers						
Perlite						
Mica						
Binders	-	-	-	-	-	54
Others						
Opagues	-	-	-	-	-	3
Total						100

Comments :

Microscopist : Jeremy A. Armstrong

MCCRONE ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
5500 Oakbrook Parkway
Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/05/84
Project Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 34 M.E. Sample I.D. No. : 8849
Gross Visual Description : White, Fluffy, Fibrous Material

ASBESTOS MINERALS: Estimated Percentage

1 .	Chrysotile	-	-	-	-	-	4
2 .	Amosite	-	-	-	-	-	32
3 .	Crocidolite						
4 .	Anthophyllite						
5 .	Tremolite/Actinolite						
	Asbestos Total						36

Cellulose							
Paper/Wood Fibers	-	-	-	-	-	-	6

Glass Fibers							
Mineral Wool Fibers							
Perlite							
Mica							
Binders	-	-	-	-	-	-	58
Others							

Total 100

Comments :

Microscopist : Zachary S. Cowan III

McCRONE ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
5500 Oakbrook Parkway
Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Project number : ME-1361 Date analyzed : 12/05/84
Project Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 35 M.E. Sample I.D. No. : 8850
Gross Visual Description : White Fibrous Material

ASBESTOS MINERALS: Estimated Percentage

1 . Chrysotile	-	-	-	-	-	8
2 . Amosite	-	-	-	-	-	25
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						33

Cellulose						
Paper/Wood Fibers	-	-	-	-	-	15

Glass Fibers						
Mineral Wool Fibers	-	-	-	-	-	15

Perlite						
Mica						
Binders	-	-	-	-	-	37
Others						

Total 100

Comments :

Microscopist : Jeremy A. Armstrong

McCRONE ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
5500 Oakbrook Parkway
Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/05/84
Project Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 36 M.E. Sample I.D. No. : 8851
Cross Visual Description : Off-White Fibrous and Powdery Material

ASBESTOS MINERALS:

Estimated Percentage

1 . Chrysotile	-	-	-	-	-	10
2 . Amosite	-	-	-	-	-	35
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						45

Cellulose

Paper/Wood Fibers	-	-	-	-	-	10
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Glass Fibers

Mineral Wool Fibers

Perlite

Mica

Binders

Others

-	-	-	-	-	-	45
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Total 100

Comments :

Microscopist : Thomas G. Laubenthal

McCRONE ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
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BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/05/84
Project Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 37 M.E. Sample I.D. No. : 8852
Cross Visual Description : Light Grey, Fluffy, Fibrous Material

ASBESTOS MINERALS: Estimated Percentage

1 . Chrysotile	-	-	-	-	-	8
2 . Amosite	-	-	-	-	-	26
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						34

Cellulose						
Paper/Wood Fibers						
Glass Fibers						
Mineral Wool Fibers						
Perlite						
Mica						
Binders	-	-	-	-	-	66
Others						

Total 100

Comments :

Microscopist : Zachary S. Cowan III

MCCRONE ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
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Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/05/84
Project Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 38 M.E. Sample I.D. No. : 8853
Cross Visual Description : Off-White Powder

ASBESTOS MINERALS:

Estimated Percentage

1 . Chrysotile	-	-	-	-	-	25
2 . Amosite	-	-	-	-	-	20
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						45

Cellulose

Paper/Wood Fibers	-	-	-	-	-	10
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Glass Fibers

Mineral Wool Fibers	-	-	-	-	-	15
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Perlite

Mica

Binders

Others

	-	-	-	-	-	30
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Total						100
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Comments :

Microscopist : Jeremy A. Armstrong

MCCRONE ENVIRONMENTAL SERVICES, INC.
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BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/06/84
Project Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 39 M.E. Sample I.D. No. : 8854
Loss Visual Description : Off-White Powdery and Fibrous Material

ASBESTOS MINERALS:

Estimated Percentage

1 . Chrysotile	-	-	-	-	-	20
2 . Amosite	-	-	-	-	-	15
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						35
Cellulose						
Paper/Wood Fibers	-	-	-	-	-	5
Glass Fibers						
Mineral Wool Fibers	-	-	-	-	-	30
Perlite						
Mica						
Binders	-	-	-	-	-	30
Others						
Total						100

Comments :

Microscopist : Thomas G. Laubenthal

MCCRONE ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
5500 Oakbrook Parkway
Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/06/84
Project Name : Juneau AR Samples/Juneau AR
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 40 M.E. Sample I.D. No. : 8855
Cross Visual Description : Light Grey Fibrous Powder

ASBESTOS MINERALS:

Estimated Percentage

1 . Chrysotile	-	-	-	-	-	20
2 . Amosite	-	-	-	-	-	25
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						45

Cellulose

Paper/Wood Fibers

Glass Fibers

Mineral Wool Fibers	-	-	-	-	-	20
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Perlite

Mica

Binders	-	-	-	-	-	35
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Others

Total	100
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Comments :

Microscopist : Jeremy A. Armstrong

200 Oakbrook Business Center
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Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Project Number : ME-1361 Date analyzed : 12/06/84
Project Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 41 M.E. Sample I.D. No. : 8856
Gross Visual Description : Off-White, Fluffy, Fibrous Material

ASBESTOS MINERALS: Estimated Percentage

1 . Chrysotile	-	-	-	-	-	12
2 . Amosite						
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						12

Cellulose						
Paper/Wood Fibers	-	-	-	-	-	7
Glass Fibers						
Mineral Wool Fibers	-	-	-	-	-	28
Perlite						
Mica						
Binders	-	-	-	-	-	53
Others						
Total						100

Comments :

Microscopist : Zachary S. Cowan III

ROCKWELL ENVIRONMENTAL SERVICES, INC.
200 Oakbrook Business Center
5500 Oakbrook Parkway
Norcross, GA 30093 (404) 449-8461

BULK SAMPLE ANALYSIS

Subject Number : ME-1361 Date analyzed : 12/05/84
Subject Name : Juneau AK Samples/Juneau AK
Client : thru The Pickering Firm/Memphis TN
Client's Sample I.D. : JK 42 M.E. Sample I.D. No. : 8857
Gross Visual Description : Grey Fibrous Powder

ASBESTOS MINERALS:

Estimated Percentage

1 . Chrysotile	-	-	-	-	-	25
2 . Amosite						
3 . Crocidolite						
4 . Anthophyllite						
5 . Tremolite/Actinolite						
Asbestos Total						25

Cellulose

Paper/Wood Fibers	-	-	-	-	-	8
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Glass Fibers

Mineral Wool Fibers	-	-	-	-	-	12
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Perlite

Mica

Binders

Others	-	-	-	-	-	55
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Total 100

Comments :

Microscopist : Jeremy A. Armstrong