PRE-DEMOLITION ASBESTOS ABATEMENT PROJECT MANUAL

Carnow Conibear Project Number: A139670124

FOR: Rockford Public Schools

501 7th Street

Rockford, Illinois 61104

AT: White Swan Elementary School

7550 Mill Road

Rockford, Illinois 61108

PROJECT: Pre-Demolition Asbestos Abatement

ENVIRONMENTAL CONSULTANT:

CARNOW, CONIBEAR & ASSOC., LTD.

600 W. Van Buren Street, Suite 500 Chicago, IL 60607 (312) 762.2900 (312) 782-5145 (fax)

Prepared by:

Rod Harvey, PE, CIH, CSP

Project Designer IDPH #100-01548

October 2, 2018



TABLE OF CONTENTS SUMMARY

ROCKFORD PUBLIC SCHOOLS WHITE SWAN ELEMENTARY SCHOOL PRE-DEMOLITION ASBESTOS ABATEMENT

SITE WORK	No. of Pages								
Section 02135	Section 02135 Asbestos Abatement for Pre-Demolition								
APPENDICE	<u>s</u>								
Appendix A.	Addition	al Design Details	2						
	Environmental Scope Sheets & Drawings								
	ASB-G	General Notes & Details	1						
	ASB-1	Scope Drawing 1 st Floor Environmental Scope of Work 1 st Floor	1 2						
	ASB-2	Scope Drawing 2 nd Floor Environmental Scope of Work 2 nd Floor	1 2						
ATTACHMEN	NT	IDPH LETTER OF DECOMMISSION – WHIT	TE SWAN						
ATTACHMEN	ΝΤ	INSPECTION REPORT AND BULK SAMPLING RESULTS							

SPECIFICATION SECTION 02135 ASBESTOS ABATEMENT FOR PRE-DEMOLITION

SECTION 02135 - ASBESTOS ABATEMENT FOR PRE-DEMOLITION

PART 1 - GENERAL

1.1 Introduction

- A. Asbestos abatement work prior to demolition is required to follow IEPA NESHAP rules. This specification is intended to provide for the removal of friable and Category I and II non-friable asbestos-containing materials prior to a structural demolition. Abatement of these items is specified in this section. When only a portion of the structure is being demolished, related paragraphs in the Interior Abatement section may be referenced or included for barrier walls or related ACM in the areas to remain.
- 1.2 Definitions: In addition to the terms listed below, all definitions in the laws and regulations listed in Section 1.5 are incorporated by reference, whether or not restated herein.
 - A. Abatement Contractor (AC) means the entity responsible for performing the work in this section, and has the training and accreditation to competently perform the work. This entity will obtain and maintain licenses required for the indoor work in this section.
 - B. Asbestos Abatement Supervisor, hereinafter referred to as "supervisor" means any person who supervises asbestos abatement workers. This person must be trained, accredited, and licensed as required, and must also meet OSHA "competent person" criteria for asbestos abatement.
 - C. Rockford Public Schools District 205 (RPS205) means the owner and the authority ordering the work specified herein.
 - E. Environmental Project Manager (EPM) is the person selected by RPS205 to perform environmental monitoring, and acts on behalf of RPS205 or its agents on the project.
 - F. HEPA Filter means a High Efficiency Particulate Air filter capable of trapping 99.97% percent of particles greater than 0.3 micrometers in mass median aerodynamic equivalent diameter.
 - G. IDPH means the Illinois Department of Public Health.
 - H. Carnow Conibear & Assoc., Ltd. means the entity with overall responsibility for the environmental aspects of the project, including design, organization, direction, and control as well as investigations, assessments, and supervision of project management.
 - I. SDS means Safety Data Sheet, required by OSHA for any chemical in the workplace that that could be expected to cause an exposure to workers during normal use or in emergency situations.
 - J. Owners' Representative (OR) means the entity responsibility for overall project

coordination and completion.

- J. Plasticize means to apply plastic sheeting over surfaces or objects to protect them from contamination or water damage.
- K. PPE (Personal Protection Equipment) means the protective suits, head and foot covers, gloves, respirators and other items used to protect persons from asbestos or other hazards.
- L. Work Area means the area or areas where asbestos abatement is being conducted.

1.3 Scope of Work.

Refer to Environmental Scope Forms and Drawings included in Appendices.

1.4 Work Included

- A. The work includes all labor, equipment, materials, and supplies necessary to perform the scope of work in the documents by the procedures described herein. The contractor, by submitting a bid for the work, represents itself as knowledgeable and expert in the performance of the work, and includes all things usually and customarily necessary to provide a complete and finished job, whether specifically mentioned or not. Related work may be shown in other related documents, prepared by others, if applicable.
- B. Removal of friable and non-friable asbestos-containing materials listed in the documents, including isolating the work areas, protection of adjacent areas, cleanup, proper packaging and disposal of wastes, and all other steps necessary to complete the scope of work.
- C. Repair or replacement of damaged surfaces, fixtures, or furnishings in portions of the structure that will not be demolished, if any, to restore them to their pre-existing condition to the satisfaction of RPS205.
- D. Compliance with all applicable laws, regulations, standards, and these specifications. In the case of a conflict, the contractor will comply with the most stringent.
- E. All licenses, accreditations, permits, fees, notifications, reports, or other documents required by law, regulation, this specification, or the Documents.
- F. Provide project closeout documentation to the EPM within thirty (30) days after final clearance. This documentation shall include, but is not limited to, items listed in paragraph 1-7, Submittals.

1.5 Laws, Regulations and Standards

A. The following laws, regulations, and standards are incorporated by reference:

- 1. 105 ILCS 105: Illinois Asbestos Abatement Act
- 2. 77 III. Adm. Code 855: Asbestos Abatement for Public and Private Schools and Commercial and Private Buildings in Illinois
- 3. 29 CFR 1910: US OSHA General Industry Standards
- 4. 29 CFR 1926: US OSHA Construction Standards
- 5. 29 CFR 1926.1101: US OSHA Asbestos Construction Standards
- 6. 40 CFR Part 61: US EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP), 11/90 revision
- 7. 40 CFR 763 Subpart E, US EPA Asbestos Model Accreditation Plan (MAP): Appendix C Interim Final Rule

1.6 Assessment, Monitoring, Testing and Analysis

- A. Carnow Conibear will perform inspection, testing and design services prior to the start of work, and monitoring during the project and upon its completion:
 - 1. Prior to the start of the work

Carnow Conibear shall identify suspect materials and confirm their asbestos content through review of the school's management plan or by testing.

- b. Carnow Conibear will design the project and address any design changes as requested.
- c. Carnow Conibear shall collect background air samples (as necessary) before conditions are disturbed. Background samples will be analyzed by PCM.
- 2. During the work, Carnow Conibear shall:
 - a. Observe the work with sufficient frequency to ensure contractor compliance with the specifications.
 - b. Assure that all personnel and visitors have the proper current medical screening, respirator fit test, and training for their respective duties prior to entering a regulated area.
 - c. Collect air samples in and around the work area, as needed, to verify exposure conditions.
 - d. Carnow Conibear may stop the work if airborne asbestos concentrations at the work area perimeter exceed 0.01 f/cc. Contractor will be responsible for taking corrective action to reduce exposure levels and prevent recurrence, and cleaning adjacent areas that become contaminated by the asbestos abatement activities.
- 3. Upon completion of the work, Carnow Conibear shall:
 - a. Visually inspect for visible debris. Contractor shall be required to reclean the area or potions of areas until no visible debris remains.
 - b. Conduct final clearance testing as required.
 - c. Prepare the project report.
- B. The Contractor shall provide OSHA compliance air monitoring to determine exposures to its employees in accordance with OSHA 29 CFR 1926.1101.

Frequency of testing will comply with OSHA requirements for the anticipated and actual exposure levels.

- 1. A written Exposure Assessment may be provided prior to the start of the work to determine the requirements for respiratory protection and frequency of OSHA monitoring for each type of activity. The contractor should note that a Negative Exposure Assessment (NEA) may be possible for many tasks.
- 2. Analysis may be performed on site.
- C. Credentials required for testing and analysis of PCM air samples:
 - 1. Accreditation by AIHA or AAR; or
 - 2. Participation in the Proficiency Analytical Testing (PAT) program.
 - 3. Certification of individual qualification to read samples on site when on site analysis is conducted.

1.7 Submittals by the Contractor:

The following shall be submitted to the MEC no less than 10 days prior to the start of the asbestos abatement work activities.

- A. Ten (10) day NESHAP notification to the Illinois EPA when the asbestos quantities reach or exceed 260 linear feet or 160 square feet. Two (2) day IDPH notification for asbestos abatement quantities less than 260 linear feet or 160 square feet. NESHAP notification may not be applicable for residential properties.
 - 1. Ten (10) day IEPA Asbestos Notification on revised form, including inspector license number and landfill permit number.
 - 2. Evidence that all contractor employees in the work areas are licensed per IDPH and accredited in accordance with OSHA, NESHAP, and EPA MAP requirements:
 - a. Current Annual refresher training certificate.
 - b. Current IDPH asbestos license
 - c. Current physicians written opinion
 - d. Current respirator fit test for negative pressure respirators when respirators are used.
 - 3. Copy of OSHA exposure assessment, if available.
 - 4. Documentation confirming arrangements for the transportation and disposal of asbestos containing waste.
 - 7. Safety Data Sheets (SDS) for any chemicals to be used on site.
 - 8. Work schedule identifying duration of project and any project phasing and drawings identifying the isolation of work areas.
- B. Prior to beginning work, the AC shall submit required notifications to applicable regulatory agencies for buildings where asbestos abatement will take place. The AC will provide copies of all regulatory notices to Carnow Conibear within 24 hours of sending such notices to the regulatory authority.

C. PART 2 - Products

2.1 Tools and Equipment: All tools and equipment shall at least conform to minimum industry standards and IDPH regulations.

A. Equipment:

- 1. Negative Air Machines shall provide HEPA filtration and conform to ANSI Z9.2 fabrication criteria.
- 2. Respirators shall be NIOSH approved for use with lead, asbestos, or other contaminants anticipated in the work.
- 3. Contractor is fully responsible for complying with OSHA rules for other safety equipment, such as hard hats, safety harnesses, eye protection, gloves, footwear, and any other safety devices used on the site.
- 4. Pressure differential manometer with readable tape shall be provided by the contractor including calibration documentation.

B. Tools:

- 1. Shovels and scoops shall be rubber or plastic, suitable for use in plasticized containment. Metal shovels are not permitted.
- 2. Scrapers, brushes, utility knives and other hand tools shall be of good quality and suitable for the intended uses. The contractor shall keep an ample supply on hand for the completion of the work.
- 3. Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders, and needle guns shall be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles.
- 2.2 Materials: All materials shall at least conform to minimum industry standards and IDPH regulations.

B. Abatement materials

- 1. Poly sheeting for all applications shall be 6 mil nominal thickness for critical seals, floors, ceilings and drop cloths, and 4 mil for walls.
- 2. Tape shall be 2" or 3" duct tape or other waterproof tape suitable for joining poly seams and attaching poly sheeting to surfaces.
- 3. Spray adhesives shall be non-flammable and free of methylene chloride solvents.
- 4. Disposal bags shall be 6 mil.
- 5. Disposable suits, hoods, and foot coverings shall be TYVEK or similar.
- 6. Solvents shall be compatible with any primers, mastics, adhesives, paints, coatings, or other surfacing materials to be installed following their use.

PART 3 - EXECUTION

- 3.1 Employee Training, Qualification and Medical Screening
 - A. Supervisors and Workers shall be trained, accredited, and licensed in accordance

with IDPH rules.

- Contractor shall keep copies of licenses, initial training course certificate, and most recent annual refresher training certificate at the jobsite at all times for all contractor personnel.
- 2. A supervisor (competent person) shall be present at the worksite at all times when work under this section is being conducted.
- B. Medical Screening. All contractor personnel shall have a current medical examination in accordance with OSHA requirements. Copies of the Physician's Written Opinions shall be kept on site.

3.2 Permissible Exposure Limits

- A. The OSHA permissible exposure limit (PEL) for worker exposure to airborne asbestos is 0.1 f/cc as an 8-hour time-weighted average (TWA).
- B. The OSHA short term excursion limit for worker exposure to airborne asbestos is 1.0 f/cc for a 30 minute sample.

3.3 Exposure Assessment and Monitoring

- A. The Contractor shall make a written assessment of the potential airborne asbestos fiber exposures for this project. Assessments shall conform with OSHA requirements and may be based upon:
 - 1. Initial monitoring of representative workers who the contractor believes are exposed to the greatest airborne concentrations of asbestos, or
 - 2. Past monitoring (within the past 12 months) or objective data for conditions closely resembling the processes, type of material, control methods, work practices and environmental conditions to be used for this project, or
- B. The contractor shall perform personal monitoring in accordance with the following requirements:
 - 1. Initially, to establish an exposure assessment when past monitoring or objective data are not available for an initial determination.
 - 2. Periodically if the exposures are, or are expected to be, below the PEL.
 - 3. Daily, if exposures are above the PEL.
 - 4. Whenever there has been a change of equipment, process, control, personnel, or a new task has been initiated that may affect employee exposures, the exposure assessment shall be updated, and monitoring shall be re-instituted if exposures are unknown or are expected to exceed the PEL.

3.4 Respiratory Protection

A. Respiratory protection shall be worn in accordance with all applicable regulations noted in section 1.5.

3.5 Hygiene Practices

- A. Eating, drinking, smoking, chewing gum or tobacco, and applying of cosmetics are not allowed in the work area.
- B. All persons entering the work area are required to wear appropriate PPE, and follow the entry and exit procedures posted in the Personnel Decontamination Enclosure System.
- C. Personal Protection Equipment (PPE) is required when airborne exposures are, or are expected to be above background levels or as needed to protect the safety of personnel and visitors. PPE includes:
 - 1. Full body disposable suits, headgear, and footwear.
 - 2. Gloves.
 - 3. Hardhats.
 - 4. Non-disposable footwear and clothing shall remain in the work area and shall be disposed of as contaminated waste when the job is completed.
 - Authorized visitors shall be provided with suitable PPE when PPE is required in the work area. Carnow Conibear shall assure that visitors have proper and current medical screening and fit test, and awareness training or other appropriate training.
- D. A Personnel Decontamination Facility is required when removing friable asbestos containing materials or worker exposures are expected to exceed the PEL. The decontamination unit may be remotely located if not feasible to locate adjacent to the work area.
 - 1. When a remote decon unit is used, personnel shall use a double-suiting procedure for traveling between the work area and the decon. Persons shall HEPA-vacuum the exterior of their disposable suits at the entry to the work area, put on a clean suit over the existing suit, and proceed to the decon unit for shower decontamination and change into street clothes.
- E. When exposures are below the PEL, protective disposable suits are recommended, but not required. To exit, persons shall HEPA-vacuum down clothing at the work area entry, and leave the work area. When disposable suits are used, they shall be HEPA-vacuumed, stripped off, and deposited in an asbestos disposal bag. Personnel may then leave the work area.

3.6 Prohibited Activities

- A. Dry removal or dry sweeping, except:
 - 1. During freezing weather. In this case, temperature and weather conditions must be recorded at the start, during, and at the end of the shift.
 - 2. On roofs with 3:1 slope or greater. In this case, roofing shall be removed in an intact condition, as much as possible.
 - 3. For roofing areas of less than 25 square feet.
 - 4. When equipment damage or other hazard exists. In this case, written permission from IEPA is required prior to performing dry removal.

- B. Use of compressed air for cleaning.
- C. Use of high speed power tools not equipped with a HEPA-filtered local exhaust or water spray system.
- D. Eating, drinking, smoking, chewing gum, or applying cosmetics in the work area.
- E. Removing respirators or other PPE in the work area.
- F. Contractor shall not salvage or recycle building materials unrelated to abatement scope of work.

3.7 Work Area Isolation and Preparation

A. General Preparation. Contractor shall:

1. Post:

- a. Caution signs meeting the specifications of OSHA 29 CFR 1926.1101 (k)(6) at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels.
- b. Decontamination and work procedures in equipment rooms and clean rooms.
- c. EPA NESHAP asbestos rules (40 CFR Part 61, subparts A & M) in the clean room.
- d. OSHA Asbestos Construction Standards (29 CFR 1926.1101) in the clean room.
- e. List of telephone numbers in the clean room for:
 - 1) local hospital and/or local emergency squad.
 - school security office (if applicable).
 - 3) owner representative reachable 24 hours per day.
 - 4) contractor's headquarters.
 - 5) architects or consultants directly involved in the project.
- 2. Secure the work area from entry by unauthorized persons.

B. Exterior Preparation

- 1. 6 mil plastic sheeting shall be placed over the ground, foundation, or other surfaces below the abatement area.
- 2. Unauthorized entry shall be prevented by using appropriate barriers, such as warning tape, fencing, or other suitable barriers.
- 3. Nearby air intakes, grilles, and other openings into the building interior areas not being demolished above, below, or besides the work area that could be exposed to airborne dust shall be closed or sealed off with poly and tape.
- 4. All electric power in the work area shall be protected with ground-fault circuit interrupters.

3.8 Abatement Procedures

A. General Removal Requirements

- 1. Asbestos materials shall be wetted and kept wet during removal.
- 2. ACM shall be bagged or containerized as it is removed. Wastes shall not be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it shall be lowered via covered, dust-tight chute, crane, hoist, or other means that prevent the wastes from being dropped or thrown.
- 3. Appropriate OSHA fall protection shall be provided when appropriate:
 - a. Scaffolding more than one section high shall be equipped with handrails and mid-rails designed to provide fall protection, or full-body safety harnesses shall be worn and tied off to a secure anchor point.
 - b. Workers in man-lifts shall wear full body harnesses and tie to the tie-off point provided on the man-lift basket whenever the basket is elevated from ground level.
 - c. Personal fall protection consisting of full body harnesses, lanyards, and OSHA-compliant lifelines, anchorage, and deceleration devices shall be provided whenever personnel are within 6 feet of an opening, hole, or edge where there is a risk of falling 6 feet or more.

B. Door/Windows Caulks/Putty and Roofing Materials

- General: Remove in an intact state to the extent feasible. ACM caulk, putty, adhesive, roof mastics, cements, underlayments, and flashings. Asbestoscontaining materials may occasionally break even when removed carefully. The fact that otherwise intact materials become separated or broken does not by itself render them non-intact. However, if they become pulverized, reduced to powder or dust, they have become non-intact.
 - a. The contractor shall take care to minimize the amount of material damage during abatement related activities.
 - b. If the materials are rendered non-intact, the AC shall employ methods to contain the dust and debris and utilize hygiene practices appropriate for friable (OSHA Class I) ACM, including PPE, decontamination units, and monitoring. Monitoring may include area samples at the work area perimeter to determine that airborne asbestos fibers are not being released in concentrations above the PEL.

2. Built-up roofing:

- a. Power cutting machines shall be equipped with a HEPA-filtered dust collection system or shall be misted during use.
- b. Dust generated by the cutting operation shall be collected with HEPA vacuums or wet cleaning methods.
- 3. Rigid roofing materials, such as cement asbestos shingles: remove intact and minimize breakage.
- C. Transite, Galbestos sheeting (galvanized metal with a baked-on asbestos paint), Asbestos/Cement pipe, or other rigid panels shall be removed intact using wet methods and applicable OSHA regulations.

D. Other

- Coatings, electric cable insulation or joint coverings, and other miscellaneous materials that are to be removed with the substrate or that can be removed without becoming friable may be removed as intact (OSHA Class II, EPA NESHAP Category I or II non-friable) in accordance with procedures described in the "General" and "Roofing" Sections 3.8 A. and C.
- 2. Coatings, and other miscellaneous materials that must be removed from the substrate or that otherwise will become friable must be removed as non-intact (OSHA Class I, EPA NESHAP friable) in accordance with procedures described in "General" and "Roofing" Sections herein.

3.9 Cleaning and Decontamination

- A. All visible accumulations of ACM, debris, tools, and unnecessary equipment shall be removed from the work area.
- B. Protective poly shall be folded in on itself, rolled up, placed in asbestos disposal bags, and disposed as asbestos waste.
- C. Surfaces which have been exposed to friable ACM or its dust shall be HEPA vacuumed.
- D. Dry sweeping of surfaces that have been exposed to friable ACM or its dust is not permitted.

3.10 Final Clearance

- A. Cleaning may be discontinued when there is no visible debris and area air monitoring results verify that exposures are below the PEL.
- B. Final (aggressive) clearance sampling will be conducted by Carnow Conibear. Each sample result, as determined by Phase Contract Microscopy, shall be less than or equal to 0.01 f/cc. If the sampling results indicate a concentration of airborne fibers in excess of this clearance criteria, the contractor shall re-clean the contained and/or regulated area. The contractor shall not be released until the contained and/or regulated work area meets the clearance criteria.

3.11 Waste Disposal and Equipment Load-out

- A. Category I and II non-friable waste may be adequately wetted and loaded in bulk into lined receptacles, such as dumpsters or trailers. Receptacles shall be closeable and lockable to provide security and to prevent air emissions. It is the abatement contractor's responsibility to determine and provide for more stringent manifesting or packaging requirements that may be imposed by transporters or landfills.
- B. Packaged friable asbestos wastes:

- 1. Asbestos-containing wastes, including removed ACM and debris, poly, critical barrier
 - materials, suits, respirator filters, vacuum HEPA filters, water filters, and other asbestos-containing items shall be properly packaged for disposal.
- 2. Use 6 mil plastic bags with a gooseneck seal, drums, or other type of sealed container.
- 3. Wrap large or irregular items in 6 mil poly sheeting and seal with tape.
- 4. Sharp, jagged, or other items that may puncture poly shall be packaged in rigid impermeable containers such as drums or boxes, or wrapped in burlap or other protective covering before sealing in bags or poly sheeting.
- 5. Label containers for friable ACM waste:
 - a. OSHA warning label.
 - b. DOT performance-oriented hazardous material label.
 - c. Name and address of generator and abatement location.
- C. Removing items from the work area:
 - 1. Packaged asbestos wastes shall be HEPA-vacuumed before removing from the work area.
- D. Storage of packaged asbestos wastes shall be in a completely enclosed dumpster, or other suitable container that can be secured. The secured area shall be kept locked at all times to prevent unauthorized access.
- E. Shipment of items from the project.
 - 1. Decontaminated tools and equipment may be shipped by normal carrier to warehouse, another jobsite, or other destination.
 - 2. For asbestos wastes:
 - a. Line shipping container with 6 mil poly prior to loading packaged friable asbestos wastes.
 - b. Post NESHAP placards during loading of friable asbestos wastes.
 - c. Execute the NESHAP-required Waste Shipment Record (WSR) to be signed by the generator, transporter, and landfill. All WSRs shall be returned to Carnow Conibear within 30 days of shipment.
 - d. Only landfills approved and permitted by Illinois for accepting asbestos wastes may be used for disposal.

INCLUDED:

Appendix A Environmental Scope of Work and Drawings

ATTACHMENT IDPH White Swan School Decommission Letter
ATTACHMENT Asbestos Inspection Report and Bulk Sampling Results

END OF SECTION

APPENDIX A

ADDITIONAL DESIGN DETAILS PROJECT SCOPE OF WORK FORMS PROJECT DRAWINGS

ASBESTOS ABATEMENT WORK

ROCKFORD PUBLIC SCHOOLS WHITE SWAN ELEMENTARY SCHOOL PRE-DEMOLITION

APPENDIX A: ADDITIONAL DESIGN DETAILS

		Number of Page
1.	Environmental Scope Sheets	4
2.	Environmental Scope of Work Drawings	3

Additional Design Details

- 1. The Abatement Contractor is responsible for verifying quantities in the field before bidding. Any questions about the scope or clarifications shall be obtained from the Project Designer prior to bidding. Any interpretations of the design documents shall only be made by the Project Designer.
- 2. The Abatement Contractor is responsible for all security to the work area(s) during the environmental abatement activities.
- Abatement Contractor shall execute the NESHAP required Waste Shipment Record (WSR) for ALL asbestos waste to be signed by the generator, transporter and landfill. All WSRs shall be returned to the MEC within 30 days of shipment.
- 4. Contractor shall label bags and/or containers for asbestos waste with the following information:
 - Generator Name
 - Contractor Name
 - 3. Project Location
 - 4. Month and year of contract work.

EC shall secure sample of label and retain as part of daily log/final report.

- 5. The environmental scope of work drawings detail locations of decontamination units, separation barriers, negative air exhaust, etc. The Abatement Contractor shall follow the design as it pertains to the drawings. Any deviations from the drawings must be requested in writing, no less than ten days prior to commencement of abatement activities, and signed off by Project Designer and sent to IDPH prior to any work activities.
- 6. Abatement Contractor to erect separation/construction barriers in a manner that will secure work areas from access by unauthorized personnel, confine any necessary decontamination units, associated water and electrical hook ups, water filtration, water discharge, negative air exhaust, etc.
- All movable furniture, room contents and personal items shall be removed by district prior to mobilization.
- 8. Contractor shall complete all abatement work within provided schedule.
- 9. The project is anticipated to begin as soon as awarded.



ASBESTOS ABATEMENT WORK

ROCKFORD PUBLIC SCHOOLS WHITE SWAN ELEMENTARY SCHOOL PRE-DEMOLITION

APPENDIX A: ADDITIONAL DESIGN DETAILS

Project and Building Information for IDPH Notifications

Rockford Public Schools - White Swan Elementary School

IDPH Building ID# 04-101-2050-2067 Building Address 7550 Mill Road

Rockford, Illinois 61108

Building Size Approximately 33,826 square feet

Age of Building Constructed 1958

Number of Floors 2

Owner Rockford Public Schools - District 205

501 7th Street, Rockford, Illinois 61104

Contact: Mr. Guy Carynski Environmental Coordinator Phone: 1-815-490-4106

Project Designer Rod Harvey, CIH, CSP 100-1548

Project Manager To Be Determined Call CCA at time of Notification
Air Sampling Professional To Be Determined Call CCA at time of Notification

Building Inspector ID# Mr. Evan Christian IDPH# 100-19466

Name of Analytical Lab CEI Labs



ASBESTOS ABATEMENT SCOPE OF WORK:

Removal and disposal of all asbestos-containing thermal system pipe insulations, floor tile/mastic, stair treads and glue, window glazing compounds, caulks, sealants and chalkboard. All asbestos abatement shall be in accordance with pre-demolition specification section 02135 and applicable IDPH, EPA, and OSHA rules and regulations.

SCHEDULE:

- Abatement Work scheduled to be conducted as soon as possible following notice of award by Owner. Abatement Contractor shall coordinate schedule of work with Owner and Carnow Conibear.
- 2. Work hours shall be limited to 7:00am to 3:30pm Monday thru Friday.

GENERAL NOTES

- Contractor responsible for removal of all non-fiberglass type thermal system insulation throughout building.
- 2. Asbestos containing thermal system insulation is located on all floors of building including behind chase walls, above ceilings, crawl spaces, etc. Contractor responsible for all exploratory demolition required to access and remove all thermal system insulation. All exploratory demolition shall be completed following isolation of work area via physical barriers and negative air pressure.
- 3. Contractor not responsible for removal of fiberglass pipe run insulation.
- The contractor is responsible for verifying quantities in the field before pricing. Any questions about the scope or clarifications shall be obtained from the Project Designer prior to bidding. Any interpretations of the design documents or scope of work shall only be made by the Project Designer.
- 5. Sequencing/scheduling of the abatement is to be coordinated with the building owner and Environmental Consultant prior to mobilization.
- 6. Where asbestos containing flooring materials are identified for abatement Contractor responsible for removal of all layers of flooring (including existing carpeting) down to the lowest substrate.
- Clearance sample results will be made available on 1 day turnaround basis. Any rush sample analysis requested by the contractor shall be at the contractor's expense.
- 8. The contractor shall pay any additional costs which arise from failure of clearance testing which may include costs for services of the Environmental Project Manager, laboratory or Project Designer.
- Contractor to exhaust negative air to the exterior of the building. When window assemblies require dis-assembly to accommodate exhaust discharge, the Contractor shall be responsible for the removal of the window and subsequent boarding.
- 10. Negative air shall be maintained on a 24-hour basis until applicable and acceptable final clearance is achieved. The contractor shall be responsible for having adequate personnel and backup equipment to maintain operation.
- 11. Caution signs shall be posted adherent to specification requirements of OSHA 29 CFR 1926.1101(k)(6) at all potential entrances or barriers to the regulated asbestos abatement area.
- 12. Contractor to verify "lock-out" and "tag-out" of all hazardous energy sources.
- 13. If disconnect of any building system is required, including, but not limited to, emergency circuits, fire protection equipment, or mechanical systems, the contractor shall notify the owner and obtain approval, prior to the commencement of work.
- 14. Abatement contractor responsible to supply any power and/or water necessary for abatement.
- 15. The abatement contractor shall submit, ten days prior to start of work, drawings indicating locations of isolation barriers, decontamination units, and negative air exhaust.

ASBESTOS	ASBESTOS ABATEMENT KEYNOTES								
Abate All Floor Tile									
2	Abate All Floor Tile and Mastic								
3	Abate All Floor Tile Beneath Carpet								
4	Abate All Non-Fiberglass Thermal Systems Insulation								
5	Abate All Stair Treads and Glue								
6	Abate All Window Glazing Compounds, Caulks, and Sealants								

	DRAWING HISTORY										
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS							
1	08/03/2018	J. Kalingasan	E. Christian								
2											
0											

Rockford Public Schools 501 7th Street Rockford, Illinois 61104 PROJECT NAME: Building Demolition
White Swan School
7550 Mill Road
Rockford, IL 61108

Rod Harvey IDPH #: 100-01548

PROJECT DESIGNER

SHEET TITLE:

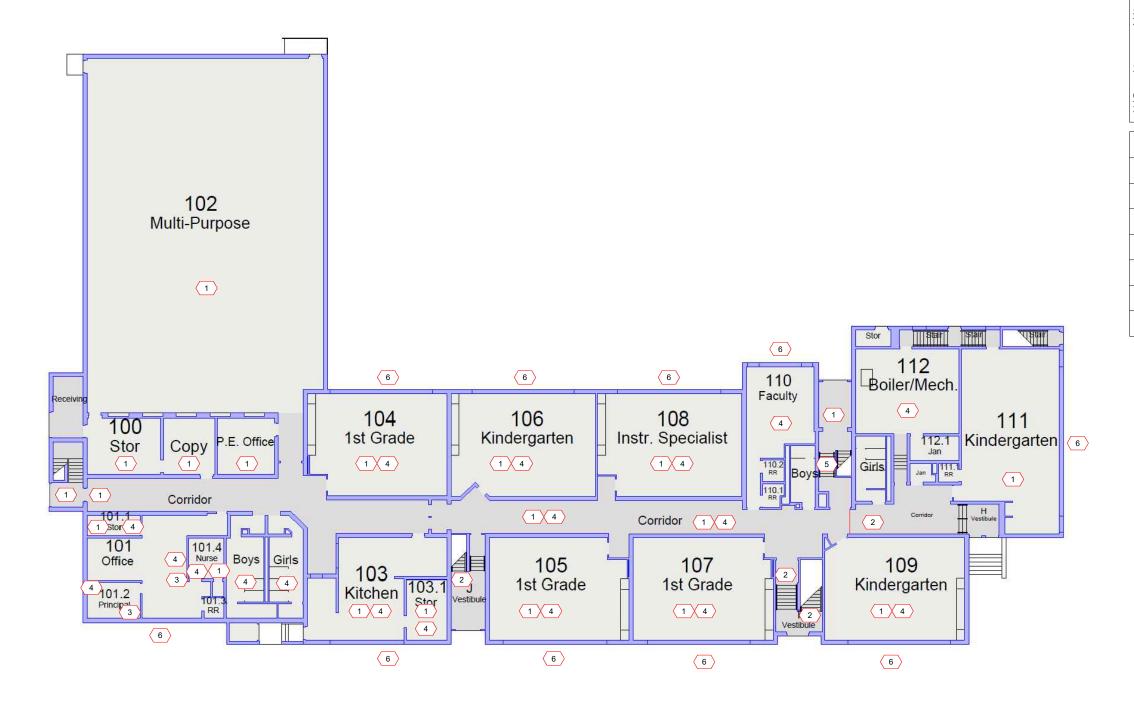
GENERAL NOTES

Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500 Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145

October 2, 2018
SHEET NO.

ASB-G

A139670124



ASBESTOS ABATEMENT SCOPE OF WORK:

 ASBESTOS ABATEMENT: Removal and disposal of asbestos containing materials prior to demolition per specification section 02135 and all applicable IDPH, EPA and OSHA regulations.

SCHEDULE:

- Abatement Work scheduled to be conducted as soon as possible following notice of award by Owner. Abatement Contractor shall coordinate schedule of work with Owner and Carnow Conibear.
- 2. Work hours shall be limited to 7:00am to 3:30pm Monday thru Friday.

GENERAL NOTES:

3. See Sheet ASB-G

ASBESTOS	ASBESTOS ABATEMENT KEYNOTES							
Abate All Floor Tile								
2	Abate All Floor Tile and Mastic							
3	Abate All Floor Tile Beneath Carpet							
4	Abate All Non-Fiberglass Thermal Systems Insulation							
5	Abate All Stair Treads and Glue							
6	Abate All Window Glazing Compounds, Caulks, and Sealants							
7	Abate Transite-type Chalkboard							

ASBESTOS ABATEMENT FIRST FLOOR PLAN NOT TO SCALE N

PROJECT DESIGNER

DRAWING HISTORY										
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS						
1	08/03/2018	J. Kalingasan	E. Christian							
2										
0										

Rockford Public Schools 501 7th Street Rockford, Illinois 61104 PROJECT NAME: Building Demolition
White Swan School
7550 Mill Road
Rockford, IL 61108

Rod Harvey IDPH #: 100-01548 PRE-DEMOLITON ASBESTOS ABATEMENT FIRST FLOOR Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500 Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 CCA PROJECT NO.
A139670124

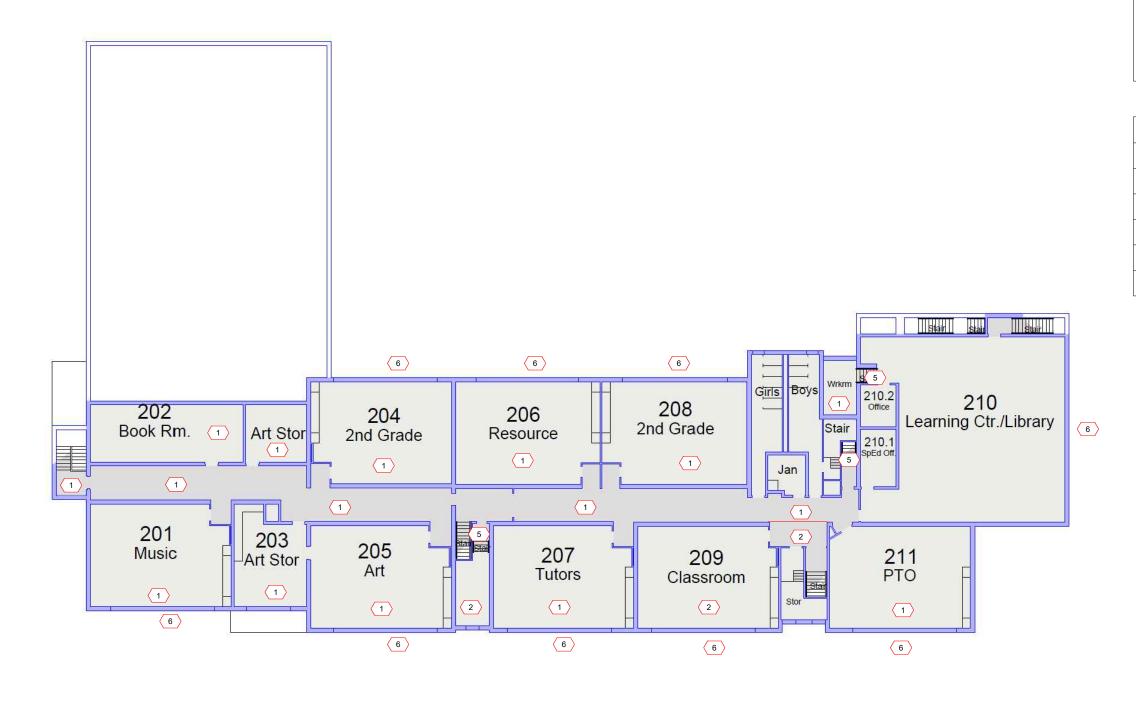
DATE:
October 2, 2018

SHEET NO.

CARNOW CONIBEAR

ASB-1

NATURE COLLEGE



ASBESTOS ABATEMENT SCOPE OF WORK:

1. ASBESTOS ABATEMENT: Removal and disposal of asbestos containing materials prior to demolition per specification section 02135 and all applicable IDPH, EPA and OSHA regulations.

SCHEDULE:

- 1. Abatement Work scheduled to be conducted as soon as possible following notice of award by Owner. Abatement Contractor shall coordinate schedule of work with Owner and Carnow Conibear.
- 2. Work hours shall be limited to 7:00am to 3:30pm Monday thru Friday.

GENERAL NOTES:

3. See Sheet ASB-G

ASBESTOS ABATEMENT KEYNOTES								
Abate All Floor Tile								
2	Abate All Floor Tile and Mastic							
3	Abate All Floor Tile Beneath Carpet							
4	Abate All Non-Fiberglass Thermal Systems Insulation							
5	Abate All Stair Treads and Glue							
6	Abate All Window Glazing Compounds, Caulks, and Sealants							

\ASBESTOS ABATEMENT SECOND FLOOR PLAN

NOT TO SCALE

PROJECT DESIGNER

	DRAWING HISTORY											
	NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS							
	1	08/03/2018	J. Kalingasan	E. Christian								
	2											
ſ	0											

Rockford Public Schools 501 7th Street Rockford, Illinois 61104

PROJECT NAME: **Building Demolition** White Swan School 7550 Mill Road Rockford, IL 61108

> Rod Harvey IDPH #: 100-01548

PRE-DEMOLITON ASBESTOS ABATEMENT SECOND FLOOR

Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500 Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 www.ccaltd.com

A139670124

October 2, 2018

CARNOW CONIBEAR

ASB-2

Page:	1	of:	4	
. 490.	•	٠		

ENVIRONMENTAL SCOPE ROCKFORD PUBLIC SCHOOLS

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd. Date: October 2, 2018

CCA Project #A139670124

School: Rockford Public Schools - White Swan Elementary School; 7550 Mill Road; Rockford , IL 61108

Room ID/Name: 1st Floor

		Walls		Walls		Ceiling	Floor	2	
Substrate	Component	N	Е	S	W			Response Action	Comments
Any	Non-fiberglass Thermal Systems Insulation (TSI)	X	X	X	X	X	X	Asbestos Abatement Removal and disposal per specification 02135	Includes ALL TSI material present and accessible AND ALL TSI material behind chase walls, above ceilings, etc. Contractor shall perform ALL necessary exploratory demolition at any suspect location to access and remove concealed asbestos containing TSI. All exploratory demolition shall be completed following isolation of work area via physical barriers and HEPA ventilation. Contractor not responsible for removal of any fiberglass insulation. At areas detailed in environmental scope drawings.
Any	Floor tile and mastic						Х	Asbestos Abatement Removal and disposal per specification 02135	Includes all layers. At areas detailed in environmental scope drawings.
Any	Floor tile						Х	Asbestos Abatement Removal and disposal per specification 02135	At areas detailed in environmental scope drawings.
Any	Window Caulks, Glazing Putty, Sealants	Х	Х	х	X			Asbestos Abatement Removal and disposal per Specification 02135	Contractor responsible for the board up of window openings when windows/framing are removed for abatement purposes. At areas detailed in environmental scope drawings.

Designer: Rod Harvey PE, CIH, CSP

Page:	2	of:	4	
. ~9~.	_	• • • • • • • • • • • • • • • • • • • •	•	

ENVIRONMENTAL SCOPE ROCKFORD PUBLIC SCHOOLS

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd. Date: October 2, 2018

CCA Project #A139670124

School: Rockford Public Schools - White Swan Elementary School; 7550 Mill Road; Rockford , IL 61108

Room ID/Name: 1st Floor continued

			Wa	alls		Ceiling	Floor		
Substrate	Component	Ζ	Е	s	W			Response Action	Comments
Any	Stair Treads and Glue						Х	Asbestos Abatement Removal and disposal per specification 02135	Includes all layers. At areas detailed in environmental scope drawings.

Designer: Rod Harvey PE, CIH, CSP

Page: 3 of: 4

ENVIRONMENTAL SCOPE ROCKFORD PUBLIC SCHOOLS

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd. Date: October 2, 2018

CCA Project #A139670124

School: Rockford Public Schools - White Swan Elementary School; 7550 Mill Road; Rockford , IL 61108

Room ID/Name: 2nd Floor

			Wa	alls		Ceiling Floor		0	Occurrents	
Substrate	Component	N	Е	S	W			Response Action	Comments	
Any	Non-fiberglass Thermal Systems Insulation (TSI)	Х	Х	X	X	X	X	Asbestos Abatement Removal and disposal per specification 02135	Includes ALL TSI material present and accessible AND ALL TSI material behind chase walls, above ceilings, etc. Contractor shall perform ALL necessary exploratory demolition at any suspect location to access and remove concealed asbestos containing TSI. All exploratory demolition shall be completed following isolation of work area via physical barriers and HEPA ventilation. Contractor not responsible for removal of any fiberglass insulation. At areas detailed in environmental scope drawings.	
Any	Floor tile and mastic						Х	Asbestos Abatement Removal and disposal per specification 02135	Includes all layers. At areas detailed in environmental scope drawings.	
Any	Floor tile						Х	Asbestos Abatement Removal and disposal per specification 02135	At areas detailed in environmental scope drawings.	
Any	Window Caulks, Glazing Putty, Sealants	Х	Х	х	Х			Asbestos Abatement Removal and disposal per Specification 02135	Contractor responsible for the board up of window openings when windows/framing are removed for abatement purposes. At areas detailed in environmental scope drawings.	

Designer: Rod Harvey PE, CIH, CSP

Page:	4	of:	4	
. ~9~.	•	• • • • • • • • • • • • • • • • • • • •	•	

ENVIRONMENTAL SCOPE ROCKFORD PUBLIC SCHOOLS

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd. Date: October 2, 2018

CCA Project #A139670124

School: Rockford Public Schools - White Swan Elementary School; 7550 Mill Road; Rockford , IL 61108

Room ID/Name: 2nd Floor continued

			Walls		Ceiling Floor		_		
Substrate	Component	N	Е	S	W			Response Action	Comments
Any	Stair Treads and Glue						Х	Asbestos Abatement Removal and disposal per specification 02135	Includes all layers. At areas detailed in environmental scope drawings.
Any	Transite-type Chalkboard		Х					Asbestos Abatement Removal and disposal per specification 02135	At areas detailed in environmental scope drawings.

Designer: Rod Harvey PE, CIH, CSP

Signature:___

IDPH #: 100-01548

ATTACHMENTS



Michael Phillips

Executive Director of Facilities

815-489-7224 Phone 815-972-3469 Fax Michael.phillips@rps205.com Email

October 2, 2018

Mr. Glen E. Garner Asbestos Abatement Program Division of Environmental Health Illinois Department of Public Health 525 West Jefferson Street Springfield, Illinois 62761

Re: Demolition of a School Building

Rockford Public Schools; White Swan Elementary School

7550 Mill Road, Rockford, Illinois 61108 IDPH Building #04-101-2050-2067

Dear Mr. Garner:

As required by 77 III. Adm. Code 855, Subpart E, Section 855.360(b), this letter is to inform Illinois Department of Public Health Asbestos Program that White Swan Elementary School located at 7550 Mill Road, Rockford, Illinois 61108 is scheduled for demolition. The subject building is unoccupied by any students, faculty and/or staff and will no longer be used as a school facility by the Rockford Public Schools. Appropriate EPA NESHAP (40 CFR 61 and OSHA (29 CFR 1910 and 1926) regulations as stated in Section 855.360(a) will be followed for asbestos abatement prior to demolition.

If you have any questions or require any additional information please feel free to contact Rockford Public Schools Environmental Coordinator, Mr. Guy Carynski at 815-490-4106.

Sincerely,

Michael Phillips

Executive Director of Facilities

Cc: Guy Carynski - Rockford Public Schools

Evan Christian – Carnow, Conibear & Assoc., Ltd. Rod Harvey – Carnow, Conibear & Assoc., Ltd.

Carnow, Conibear & Assoc., Ltd.

Environmental Consulting Services
600 W. Van Buren St., Suite 500, Chicago, IL 60607

600 W. Van Buren St., Suite 500, Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 www.ccaltd.com



October 4, 2018

Mr. Guy Carynski Environmental Coordinator Rockford School District 1907 Kishwaukee Street Rockford, IL 61104

RE: Pre-demolition Asbestos Inspection Report

White Swan School - 7550 Mill Road, Rockford, IL 61108

Carnow Conibear Project No.: A139670124

Dear Mr. Carynski,

Please find the attached summary and results of the pre-demolition asbestos inspection performed by Carnow, Conibear & Assoc., Ltd. (Carnow Conibear) at the above referenced property. The inspection and sampling was performed to determine the presence of asbestos-containing building materials prior to demolition. The surveys and sampling were conducted August 30, 2018 and September 21, 2018. Sampling was conducted by Carnow Conibear representative Mr. Evan Christian, licensed by the Illinois Department of Public Health (IDPH) as an Asbestos Building Inspector.

CEI Labs (CEI) performed all related asbestos sample analysis. Analysis was completed by Polarized Light Microscopy (PLM) at 400x magnification. PLM is the EPA recommended laboratory method for the identification of asbestos in bulk building materials. CEI is accredited for asbestos bulk sample analysis by PLM through NIST's National Voluntary Laboratory Accreditation Program (NVLAP).

The results of the sampling are presented in the following tables.

SAMPLE NO.	MATERIAL	GENERAL LOCATIONS	ASBESTOS SAMPLE RESULT	COMMENTS
EC083018-01 thru 03	9"x9" Floor Tiles – Light Brown	Multi-Purpose Room, Main Office beneath Carpet, Portions of Corridors, Various Rooms	10% Chrysotile Asbestos	Removal/Abatement prior to Demolition

SAMPLE NO.	MATERIAL	GENERAL LOCATIONS	ASBESTOS SAMPLE RESULT	COMMENTS
EC083018-04 thru 06	Black Mastic beneath 9"x9" Floor Tiles – Light Brown	Multi-Purpose Room, Main Office beneath Carpet, Portions of Corridors, Various Rooms	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-07 thru 09	Yellow Carpet Glue	Main Office, Library, 110, 111	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-10 thru 12	4" Black Baseboard	Throughout Building	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-13 thru 15	Yellow Glue behind 4" Black Baseboard	Throughout Building	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-16 thru 18	Pipe Joint Insulation on Fiberglass Insulated Pipes	Throughout Building	5% Chrysotile, 2% Amosite Asbestos	Removal/Abatement prior to Demolition
EC083018-19 thru 21	12"x12" Floor Tiles – Black and White	West Stairwell, 1 st Floor East Corridor, 111, Library Workroom	3% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-22 thru 24	Black Mastic beneath 12"x12" Floor Tiles – Black and White	West Stairwell, 1st Floor East Corridor, 111, Library Workroom	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-25 thru 27	Drywall	Various Areas	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-28 thru 30	Drywall Joint Compound	Various Areas	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-31 thru 33	Tectum Ceiling Panels	Gymnasium	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-34 thru 36	Red Terrazzo	1st Floor West Restrooms	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-37 thru 39	9"x9" Floor Tiles – Red/Brown	Corridors, Classrooms	10% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-40 thru 42	Black Mastic beneath 9"x9" Floor Tiles – Red/Brown	Corridors, Classrooms	Asbestos Not Detected	No Action Required prior to Demolition



SAMPLE NO.	MATERIAL	GENERAL LOCATIONS	ASBESTOS SAMPLE RESULT	COMMENTS
EC083018-43 thru 45	12"x12" Floor Tiles – Tan, Brown, White	Kitchen	7% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-46 thru 48	Black Mastic beneath 12"x12" Floor Tiles – Tan, Brown, White	Kitchen	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-49 thru 51	12"x12" Floor Tiles – Gray and Black	1 st Floor East Corridor	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-52 thru 54	Tan Mastic beneath 12"x12" Floor Tiles – Gray and Black	1st Floor East Corridor	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-56 thru 58	Hard Coat Plaster	Various Areas	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-59 thru 61	12"x12" Floor Tiles – Red	1 st and 2 nd Floor East Hallway, 211	Asbestos Not Detected	Removal/Abatement prior to Demolition (Associated Mastic Contains Asbestos)
EC083018-62 thru 64	Black Mastic beneath 12"x12" Floor Tiles – Red	1 st and 2 nd Floor East Hallway, 211	3% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-65 thru 67	12"x12" Floor Tiles - Blue	1 st Floor East Hallway	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-68 thru 70	Tan Mastic beneath 12"x12" Floor Tiles - Blue	1 st Floor East Hallway	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-71 thru 73	Pressboard Sound Panels	Library	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-74 thru 76	Olive Laminate Stair Treads	Library Upper Workroom	<1% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-77 thru 79	Black Mastic beneath Olive Laminate Stair Treads	Library Upper Workroom	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-80 thru 82	Wood Grain Laminate Counter Top	Library Upper Workroom	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-83 thru 85	12"x12" Floor Tiles – Light Blue and Dark Blue	209	Asbestos Not Detected	Removal/Abatement prior to Demolition (Associated Mastic Contains Asbestos)



SAMPLE NO.	MATERIAL	GENERAL LOCATIONS	ASBESTOS SAMPLE RESULT	COMMENTS
EC083018-86 thru 88	Black Mastic beneath 12"x12" Floor Tiles – Light Blue and Dark Blue	209	3% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-89 thru 91	12"x12" Floor Tiles – White with Black Spots	2 nd Floor SW Workroom	3% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-92 thru 94	Black Mastic beneath 12"x12" Floor Tiles – White with Black Spots	2 nd Floor SW Workroom	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-95 thru 97	Red Marble Pattern Stair Tread	2 nd Floor SW Workroom	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-98 thru 100	Tan Mastic beneath Red Marble Pattern Stair Tread	2 nd Floor SW Workroom	2% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-101 thru 103	Interior Window Caulk	Windows Throughout	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-104 thru 106	Gray/White Exterior Window Glazing Putty	Windows Throughout	2% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC083018-107 thru 109	Gray Exterior Window Caulk	Windows Throughout	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-110 thru 112	Gray Exterior Univent Caulk	Exterior Univent Louvers	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-113 thru 115	Gray Exterior Door Caulk	Doors to Exterior Throughout	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-116 thru 118	Breeching Elbow Insulation on Fiberglass Insulated Boiler Breeching	Boiler Room	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-119 thru 121	Boiler Gaskets	Boiler Room	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-122 thru 124	White Laminate Counter Top	Kitchen	Asbestos Not Detected	No Action Required prior to Demolition
EC083018-125 thru 127	2'x4' Ceiling Tiles - Gouges	Library	Asbestos Not Detected	No Action Required prior to Demolition



SAMPLE NO.	MATERIAL	GENERAL LOCATIONS	ASBESTOS SAMPLE RESULT	COMMENTS
EC093018-128 thru 130	2'x4' Ceiling Tiles – Smooth Gypsum	110 Restrooms	Asbestos Not Detected	No Action Required prior to Demolition
EC093018-131 thru 133	Exterior Cement Plaster	Exterior Overhangs	Asbestos Not Detected	No Action Required prior to Demolition
EC090218-01 thru 03	Roof Field	Main Building	Asbestos Not Detected	No Action Required prior to Demolition
EC090218-04 thru 06	Roof Flashing	Main Building	Asbestos Not Detected	No Action Required prior to Demolition
EC090218-07 thru 09	Roof Field	Addition Building	10% Chrysotile Asbestos	Removal/Abatement prior to Demolition
EC100118A-01 thru 03	Tan Chalkboard Adhesive	Throughout Building	Asbestos Not Detected	No Action Required prior to Demolition
EC100118A-04 thru 06	White Floor Leveling Compound	Various Areas Throughout Building	Asbestos Not Detected	No Action Required prior to Demolition
EC100118A-07 thru 09	Transite-type Chalkboard	Workroom between 205/207	20% Chrysotile Asbestos	Removal/Abatement prior to Demolition

Based on the results of the inspections and sampling Carnow Conibear recommends the following prior to demolition at White Swan School located at 7550 Mill Road, Rockford, Illinois 61108.

 Asbestos Abatement - Removal and disposal of all identified asbestos containing materials per applicable EPA and OSHA asbestos regulations. Abatement by Illinois Licensed Asbestos Abatement Contractor.

See Attachment A for laboratory reports and sample chain of custody documentation and Attachment B for Inspector License and Current Accreditation.



Please feel free to contact me directly at 312.762.2925 or echristian@ccaltd.com should you have any questions or require any additional information.

Sincerely,

CARNOW, CONIBEAR & ASSOC., LTD.

Evan Christian

Senior Project Manager Licensed Asbestos Inspector



ATTACHMENT A



September 13, 2018

Carnow, Conibear & Assoc., Ltd. 600 W Van Buren St Ste 500 Chicago, IL 60607

CLIENT PROJECT: White Swan Pre Demo; A139670124

CEI LAB CODE: B188333

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on September 11, 2018. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

Tianbao Bai, Ph.D., CIH Laboratory Director





ASBESTOS ANALYTICAL REPORT By: Polarized Light Microscopy

Prepared for

Carnow, Conibear & Assoc., Ltd.

CLIENT PROJECT: White Swan Pre Demo; A139670124

LAB CODE: B188333

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 09/13/18

TOTAL SAMPLES ANALYZED: 132

SAMPLES >1% ASBESTOS: 29



Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: White Swan Pre Demo; A139670124 LAB CODE: B188333

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
EC083018-01		B101665	Brown	Floor Tile	Chrysotile 10%
EC083018-02		B101666	Brown	Floor Tile	Chrysotile 10%
EC083018-03		B101667	Brown	Floor Tile	Chrysotile 10%
EC083018-04		B101668	Black	Mastic	None Detected
EC083018-05		B101669	Black	Mastic	None Detected
EC083018-06		B101670	Black	Mastic	None Detected
EC083018-07		B101671	Yellow	Carpet Mastic	None Detected
EC083018-08		B101672	Yellow	Carpet Mastic	None Detected
EC083018-09		B101673	Yellow	Carpet Mastic	None Detected
EC083018-10		B101674	Black	Baseboard	None Detected
EC083018-11		B101675	Black	Baseboard	None Detected
EC083018-12		B101676	Black	Baseboard	None Detected
EC083018-13		B101677	Yellow	Glue	None Detected
EC083018-14		B101678	Yellow	Glue	None Detected
EC083018-15		B101679	Yellow	Glue	None Detected
EC083018-16		B101680	Off-white	Pipe Insulation	Chrysotile 5% Amosite 2%
EC083018-17		B101681	Off-white	Pipe Insulation	Chrysotile 5% Amosite 2%
EC083018-18		B101682	Off-white	Pipe Insulation	Chrysotile 5% Amosite 2%
EC083018-19		B101683	Black,White	Floor Tile	Chrysotile 3%
EC083018-20		B101684	Black,White	Floor Tile	Chrysotile 3%
EC083018-21		B101685	Black,White	Floor Tile	Chrysotile 3%
EC083018-22		B101686	Black	Mastic	None Detected
EC083018-23		B101687	Black	Mastic	None Detected
EC083018-24		B101688	Black	Mastic	None Detected
EC083018-25		B101689	White	Drywall/Joint Compound	None Detected
EC083018-26		B101690	White	Drywall/Joint Compound	None Detected
EC083018-27		B101691	White	Drywall/Joint Compound	None Detected
EC083018-28		B101692	White	Joint Compound	None Detected
EC083018-29		B101693	White	Joint Compound	None Detected



By: POLARIZING LIGHT MICROSCOPY

PROJECT: White Swan Pre Demo; A139670124 LAB CODE: B188333

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
EC083018-30		B101694	White	Joint Compound	None Detected
EC083018-31		B101695	White	Tectum Ceiling	None Detected
EC083018-32		B101696	White	Tectum Ceiling	None Detected
EC083018-33		B101697	White	Tectum Ceiling	None Detected
EC083018-34		B101698	Red,Brown	Terrazzo	None Detected
EC083018-35		B101699	Red,Brown	Terrazzo	None Detected
EC083018-36		B101700	Red,Brown	Terrazzo	None Detected
EC083018-37		B101701	Brown,Red	Floor Tile	Chrysotile 10%
EC083018-38		B101702	Brown,Red	Floor Tile	Chrysotile 10%
EC083018-39		B101703	Brown,Red	Floor Tile	Chrysotile 10%
EC083018-40		B101704	Black	Mastic	None Detected
EC083018-41		B101705	Black	Mastic	None Detected
EC083018-42		B101706	Black	Mastic	None Detected
EC083018-43		B101707	Brown,White	Floor Tile	Chrysotile 7%
EC083018-44		B101708	Brown,White	Floor Tile	Chrysotile 7%
EC083018-45		B101709	Brown,White	Floor Tile	Chrysotile 7%
EC083018-46		B101710	Black	Mastic	None Detected
EC083018-47		B101711	Black	Mastic	None Detected
EC083018-48		B101712	Black	Mastic	None Detected
EC083018-49		B101713	Black,Gray	Floor Tile	None Detected
EC083018-50		B101714	Black,Gray	Floor Tile	None Detected
EC083018-51		B101715	Black,Gray	Floor Tile	None Detected
EC083018-52		B101716	Yellow	Mastic	None Detected
EC083018-53		B101717	Yellow	Mastic	None Detected
EC083018-54		B101718	Yellow	Mastic	None Detected
EC083018-56		B101719	White,Gray	Plaster	None Detected
EC083018-57		B101720	White,Gray	Plaster	None Detected
EC083018-58		B101721	White,Gray	Plaster	None Detected
EC083018-59		B101722	Red	Floor Tile	None Detected
EC083018-60		B101723	Red	Floor Tile	None Detected
EC083018-61		B101724	Red	Floor Tile	None Detected



By: POLARIZING LIGHT MICROSCOPY

PROJECT: White Swan Pre Demo; A139670124 LAB CODE: B188333

					ASBESTOS
Client ID	Layer	Lab ID	Color	Sample Description	%
EC083018-62		B101725	Black	Mastic	Chrysotile 3%
EC083018-63		B101726	Black	Mastic	Chrysotile 3%
EC083018-64		B101727	Black	Mastic	Chrysotile 3%
EC083018-65		B101728	Gray,Blue	Floor Tile	None Detected
EC083018-66		B101729	Gray,Blue	Floor Tile	None Detected
EC083018-67		B101730	Gray,Blue	Floor Tile	None Detected
EC083018-68		B101731	Yellow	Mastic	None Detected
EC083018-69		B101732	Yellow	Mastic	None Detected
EC083018-70		B101733	Yellow	Mastic	None Detected
EC083018-71		B101734	Tan	Fiberboard	None Detected
EC083018-72		B101735	Tan	Fiberboard	None Detected
EC083018-73		B101736	Tan	Fiberboard	None Detected
EC083018-74		B101737	Olive	Stair Tread	Chrysotile <1%
EC083018-75		B101738	Olive	Stair Tread	Chrysotile <1%
EC083018-76		B101739	Olive	Stair Tread	Chrysotile <1%
EC083018-77		B101740	Black	Mastic	None Detected
EC083018-78		B101741	Black	Mastic	None Detected
EC083018-79		B101742	Black	Mastic	None Detected
EC083018-80		B101743	Brown	Counter Top	None Detected
EC083018-81		B101744	Brown	Counter Top	None Detected
EC083018-82		B101745	Brown	Counter Top	None Detected
EC083018-83		B101746	Blue	Floor Tile	None Detected
EC083018-84		B101747	Blue	Floor Tile	None Detected
EC083018-85		B101748	Blue	Floor Tile	None Detected
EC083018-86		B101749	Black	Mastic	Chrysotile 3%
EC083018-87		B101750	Black	Mastic	Chrysotile 3%
EC083018-88		B101751	Black	Mastic	Chrysotile 3%
EC083018-89		B101752	White,Black	Floor Tile	Chrysotile 3%
EC083018-90		B101753	White,Black	Floor Tile	Chrysotile 3%
EC083018-91		B101754	White,Black	Floor Tile	Chrysotile 3%
EC083018-92		B101755	Black	Mastic	None Detected



By: POLARIZING LIGHT MICROSCOPY

PROJECT: White Swan Pre Demo; A139670124 LAB CODE: B188333

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
EC083018-93		B101756	Black	Mastic	None Detected
EC083018-94		B101757	Black	Mastic	None Detected
EC083018-95		B101758	Red,Brown	Stair Tread	None Detected
EC083018-96		B101759	Red,Brown	Stair Tread	None Detected
EC083018-97		B101760	Red,Brown	Stair Tread	None Detected
EC083018-98		B101761	Yellow	Mastic	Chrysotile 2%
EC083018-99		B101762	Yellow	Mastic	Chrysotile 2%
EC083018-100		B101763	Yellow	Mastic	Chrysotile 2%
EC083018-101		B101764	White	Window Caulking	None Detected
EC083018-102		B101765	White	Window Caulking	None Detected
EC083018-103		B101766	White	Window Caulking	None Detected
EC083018-104		B101767	White	Window Glazing	Chrysotile 2%
EC083018-105		B101768	White	Window Glazing	Chrysotile 2%
EC083018-106		B101769	White	Window Glazing	None Detected
EC083018-107		B101770	Gray	Window Caulking	None Detected
EC083018-108		B101771	Gray	Window Caulking	None Detected
EC083018-109		B101772	Gray	Window Caulking	None Detected
EC083018-110		B101773	Gray	Window Caulking	None Detected
EC083018-111		B101774	Gray	Window Caulking	None Detected
EC083018-112		B101775	Gray	Window Caulking	None Detected
EC083018-113		B101776	Gray	Door Caulk	None Detected
EC083018-114		B101777	Gray	Door Caulk	None Detected
EC083018-115		B101778	Gray	Door Caulk	None Detected
EC083018-116		B101779	Off-white	Pipe Elbows	None Detected
EC083018-117		B101780	Off-white	Pipe Elbows	None Detected
EC083018-118		B101781	Off-white	Pipe Elbows	None Detected
EC083018-119		B101782	White	Boiler Gasket	None Detected
EC083018-120		B101783	White	Boiler Gasket	None Detected
EC083018-121		B101784	White	Boiler Gasket	None Detected
EC083018-122		B101785	Brown	Counter Top	None Detected
EC083018-123		B101786	Brown	Counter Top	None Detected



By: POLARIZING LIGHT MICROSCOPY

PROJECT: White Swan Pre Demo; A139670124 LAB CODE: B188333

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
EC083018-124		B101787	Brown	Counter Top	None Detected
EC083018-125		B101788	White	Ceiling Tile	None Detected
EC083018-126		B101789	White	Ceiling Tile	None Detected
EC083018-127		B101790	White	Ceiling Tile	None Detected
EC083018-128		B101791	White	Ceiling Tile	None Detected
EC083018-129		B101792	White	Ceiling Tile	None Detected
EC083018-130		B101793	White	Ceiling Tile	None Detected
EC083018-131		B101794	White,Gra	y Cement	None Detected
EC083018-132		B101795	White,Gra	y Cement	None Detected
EC083018-133		B101796	White,Gra	y Cement	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBES	TOS COMPO! Non-F	NENTS ibrous	ASBESTOS %
EC083018-0 B101665	1 Floor Tile	Homogeneous Brown Non-fibrous Bound		90%	Vinyl	10% Chrysotile
EC083018-0 B101666	2 Floor Tile	Homogeneous Brown Non-fibrous Bound		90%	Vinyl	10% Chrysotile
EC083018-0 B101667	3 Floor Tile	Homogeneous Brown Non-fibrous Bound		90%	Vinyl	10% Chrysotile
EC083018-0 B101668	4 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected
EC083018-0 B101669	5 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected
EC083018-0 B101670	6 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected
EC083018-0 B101671	7 Carpet Mastic	Homogeneous Yellow Non-fibrous Bound		100%	Mastic	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab NON-ASBESTOS COMPONENTS Attributes Fibrous Non-Fibrous				ASBESTOS %
	-08 Carpet Mastic	Homogeneous Yellow Non-fibrous Bound			Mastic	None Detected
EC083018- B101673	- 09 Carpet Mastic	Homogeneous Yellow Non-fibrous Bound		100%	Mastic	None Detected
EC083018- B101674	-10 Baseboard	Homogeneous Black Non-fibrous Bound		100%	Vinyl	None Detected
EC083018- B101675	-11 Baseboard	Homogeneous Black Non-fibrous Bound		100%	Vinyl	None Detected
EC083018- B101676	-12 Baseboard	Homogeneous Black Non-fibrous Bound		100%	Vinyl	None Detected
EC083018- B101677	-13 Glue	Homogeneous Yellow Non-fibrous Bound		100%	Mastic	None Detected
EC083018- B101678	-14 Glue	Homogeneous Yellow Non-fibrous Bound		100%	Mastic	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333 **Date Received:** 09-11-18

Date Analyzed: 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab		N-ASBESTOS			ASBESTOS	
Lab ID	Description	Attributes	Fibr	ous	Non-F	ibrous	%	
EC083018-	15 Glue	Homogeneous Yellow Non-fibrous Bound			100%	Mastic	None Detected	
EC083018-	16 Pipe Insulation	Heterogeneous Off-white Fibrous Loosely Bound	20% 20%	Cellulose Fiberglass	28% 25%	Calc Carb Binder	5% Chrysotile 2% Amosite	
EC083018- B101681	17 Pipe Insulation	Heterogeneous Off-white Fibrous Loosely Bound	20% 20%	Cellulose Fiberglass	28% 25%	Calc Carb Binder	5% Chrysotile 2% Amosite	
EC083018- B101682	18 Pipe Insulation	Heterogeneous Off-white Fibrous Loosely Bound	20% 20%	Cellulose Fiberglass	28% 25%	Calc Carb Binder	5% Chrysotile 2% Amosite	
EC083018- B101683	19 Floor Tile	Homogeneous Black,White Non-fibrous Bound			97%	Vinyl	3% Chrysotile	
EC083018-2 B101684	20 Floor Tile	Homogeneous Black,White Non-fibrous Bound			97%	Vinyl	3% Chrysotile	
EC083018-2 B101685	21 Floor Tile	Homogeneous Black,White Non-fibrous Bound			97%	Vinyl	3% Chrysotile	



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NO Fibr	N-ASBESTOS		NENTS ibrous	ASBESTOS %	
EC083018-3	•	Homogeneous Black Non-fibrous	1 101	003		Mastic	None Detected	
F0002040	O2 Mactic	Bound			100%	Mastic	None Detected	
EC083018-	23 Mastic	Homogeneous Black Non-fibrous Bound			100 %	Mastic	None Detected	
EC083018-	24 Mastic	Homogeneous Black Non-fibrous Bound			100%	Mastic	None Detected	
EC083018-	25 Drywall/Joint Compound	Heterogeneous White Fibrous Loosely Bound	15%	Cellulose	5% 80%	Calc Carb Gypsum	None Detected	
EC083018-	26 Drywall/Joint Compound	Heterogeneous White Fibrous Loosely Bound	15%	Cellulose	5% 80%	Calc Carb Gypsum	None Detected	
EC083018-	27 Drywall/Joint Compound	Heterogeneous White Fibrous Loosely Bound	15%	Cellulose	5% 80%	Calc Carb Gypsum	None Detected	
EC083018- B101692	28 Joint Compound	Heterogeneous White Non-fibrous Loosely Bound			80% 20%	Calc Carb Paint	None Detected	



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NO Fibr	N-ASBESTOS		NENTS Fibrous	ASBESTOS %
EC083018-2 B101693	29 Joint Compound	Heterogeneous White Non-fibrous Loosely Bound			80% 20%	Calc Carb Paint	None Detected
EC083018-3 B101694	30 Joint Compound	Heterogeneous White Non-fibrous Loosely Bound			80% 20%	Calc Carb Paint	None Detected
EC083018-3 B101695	31 Tectum Ceiling	Heterogeneous White Fibrous Loosely Bound	80%	Cellulose	20%	Binder	None Detected
EC083018-3 B101696	32 Tectum Ceiling	Heterogeneous White Fibrous Loosely Bound	80%	Cellulose	20%	Binder	None Detected
EC083018-3 B101697	33 Tectum Ceiling	Heterogeneous White Fibrous Loosely Bound	80%	Cellulose	20%	Binder	None Detected
EC083018-3 B101698	34 Terrazzo	Heterogeneous Red,Brown Non-fibrous Tightly Bound			75% 25%	Silicates Binder	None Detected
EC083018-3 B101699	35 Terrazzo	Heterogeneous Red,Brown Non-fibrous Tightly Bound			75% 25%	Silicates Binder	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBES Fibrous	TOS COMPOI	NENTS ibrous	ASBESTOS %
		Attributes	ribrous	NOII-F	ibrous	70
EC083018-	36 Terrazzo	Heterogeneous		75%	Silicates	None Detected
B101700		Red,Brown		25%	Binder	
		Non-fibrous				
		Tightly Bound				
EC083018-	37 Floor Tile	Homogeneous		90%	Vinyl	10% Chrysotile
B101701		Brown,Red				
		Non-fibrous				
		Bound				
EC083018-	38 Floor Tile	Homogeneous		90%	Vinyl	10% Chrysotile
B101702		Brown,Red				
		Non-fibrous				
		Bound				
EC083018-	39 Floor Tile	Homogeneous		90%	Vinyl	10% Chrysotile
B101703		Brown,Red				
		Non-fibrous				
		Bound				
EC083018-	40 Mastic	Homogeneous		100%	Mastic	None Detected
B101704		Black				
		Non-fibrous				
		Bound				
EC083018-	41 Mastic	Homogeneous		100%	Mastic	None Detected
B101705		Black				
		Non-fibrous				
		Bound				
EC083018-	42 Mastic	Homogeneous		100%	Mastic	None Detected
B101706		Black				
		Non-fibrous				
		Bound				



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID						ASBESTOS
Lab ID	Description	Attributes	Fibrous	Non-F	iprous	<u></u>
EC083018- B101707	43 Floor Tile	Homogeneous Brown,White Non-fibrous Bound		93%	Vinyl	7% Chrysotile
EC083018- B101708	44 Floor Tile	Homogeneous Brown,White Non-fibrous Bound		93%	Vinyl	7% Chrysotile
EC083018- B101709	45 Floor Tile	Homogeneous Brown,White Non-fibrous Bound		93%	Vinyl	7% Chrysotile
EC083018- B101710	46 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected
EC083018- B101711	47 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected
EC083018- B101712	48 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected
EC083018- B101713	49 Floor Tile	Homogeneous Black,Gray Non-fibrous Bound		100%	Vinyl	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab	NON-ASBES	TOS COMPO	NENTS	ASBESTOS	
Lab ID	Description	Attributes	Fibrous	Non-F	ibrous	%	
EC083018-50 Floor Tile B101714		Homogeneous Black,Gray Non-fibrous Bound		100% Vinyl		None Detected	
EC083018- B101715	-51 Floor Tile	Homogeneous Black,Gray Non-fibrous Bound		100%	Vinyl	None Detected	
EC083018- B101716	-52 Mastic	Homogeneous Yellow Non-fibrous Bound		100%	Mastic	None Detected	
EC083018 - B101717	-53 Mastic	Homogeneous Yellow Non-fibrous Bound		100%	Mastic	None Detected	
EC083018- B101718	-54 Mastic	Homogeneous Yellow Non-fibrous Bound		100%	Mastic	None Detected	
EC083018- B101719	-56 Plaster	Heterogeneous White,Gray Non-fibrous Bound		30% 30% 40%	Binder Perlite Silicates	None Detected	
EC083018- B101720	-57 Plaster	Heterogeneous White,Gray Non-fibrous Bound		30% 30% 40%	Binder Perlite Silicates	None Detected	



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab	NON-ASBES	TOS COMPO	ASBESTOS	
Lab ID	Description	Attributes	Fibrous	Non-F	ibrous	%
EC083018- B101721	58 Plaster	Heterogeneous White,Gray Non-fibrous Bound		30% 30% 40%	Binder Perlite Silicates	None Detected
EC083018- B101722	59 Floor Tile	Homogeneous Red Non-fibrous Bound		100%	Vinyl	None Detected
EC083018- B101723	60 Floor Tile	Homogeneous Red Non-fibrous Bound		100%	Vinyl	None Detected
EC083018- B101724	61 Floor Tile	Homogeneous Red Non-fibrous Bound		100%	Vinyl	None Detected
EC083018- B101725	62 Mastic	Homogeneous Black Non-fibrous Bound		97%	Mastic	3% Chrysotile
EC083018- B101726	63 Mastic	Homogeneous Black Non-fibrous Bound		97%	Mastic	3% Chrysotile
EC083018- B101727	64 Mastic	Homogeneous Black Non-fibrous Bound		97%	Mastic	3% Chrysotile



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NON- Fibro	-ASBESTOS		NENTS ibrous	ASBESTOS %
		Attributes	FIDIO	us	NOII-F	ibrous	70
EC083018- B101728	65 Floor Tile	Homogeneous Gray,Blue Non-fibrous Bound			100%	Vinyl	None Detected
EC083018- B101729	66 Floor Tile	Homogeneous Gray,Blue Non-fibrous Bound			100%	Vinyl	None Detected
EC083018- B101730	67 Floor Tile	Homogeneous Gray,Blue Non-fibrous Bound			100%	Vinyl	None Detected
EC083018- B101731	68 Mastic	Homogeneous Yellow Non-fibrous Bound			100%	Mastic	None Detected
EC083018- B101732	69 Mastic	Homogeneous Yellow Non-fibrous Bound			100%	Mastic	None Detected
EC083018- B101733	70 Mastic	Homogeneous Yellow Non-fibrous Bound			100%	Mastic	None Detected
EC083018- B101734	71 Fiberboard	Homogeneous Tan Fibrous Loosely Bound	90%	Cellulose	10%	Binder	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab		N-ASBESTOS	_	ASBESTOS		
Lab ID	Description	Attributes	Fibr	ous	Non-F	ibrous	%	
EC083018- B101735	72 Fiberboard	Homogeneous Tan Fibrous Loosely Bound	90%	Cellulose	10%	Binder	None Detected	
EC083018- B101736	73 Fiberboard	Homogeneous Tan Fibrous Loosely Bound	90%	Cellulose	10%	Binder	None Detected	
EC083018- B101737	74 Stair Tread	Homogeneous Olive Non-fibrous Bound			100%	Vinyl	<1% Chrysotile	
EC083018- B101738	75 Stair Tread	Homogeneous Olive Non-fibrous Bound			100%	Vinyl	<1% Chrysotile	
EC083018- B101739	76 Stair Tread	Homogeneous Olive Non-fibrous Bound			100%	Vinyl	<1% Chrysotile	
EC083018- B101740	77 Mastic	Homogeneous Black Non-fibrous Bound			100%	Mastic	None Detected	
EC083018- B101741	78 Mastic	Homogeneous Black Non-fibrous Bound			100%	Mastic	None Detected	



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab		N-ASBESTOS		_	ASBESTOS
Lab ID	Description	Attributes	Fibr	ous	Non-F	ibrous	%
EC083018- B101742	79 Mastic	Homogeneous Black Non-fibrous Bound			100%	Mastic	None Detected
EC083018- B101743	80 Counter Top	Heterogeneous Brown Fibrous Tightly Bound	60%	Cellulose	20% 20%	Vinyl Binder	None Detected
EC083018- B101744	81 Counter Top	Heterogeneous Brown Fibrous Tightly Bound	60%	Cellulose	20% 20%	Vinyl Binder	None Detected
EC083018- B101745	82 Counter Top	Heterogeneous Brown Fibrous Tightly Bound	60%	Cellulose	20% 20%	Vinyl Binder	None Detected
EC083018- B101746	83 Floor Tile	Homogeneous Blue Non-fibrous Bound			100%	Vinyl	None Detected
EC083018- B101747	84 Floor Tile	Homogeneous Blue Non-fibrous Bound			100%	Vinyl	None Detected
EC083018- B101748	85 Floor Tile	Homogeneous Blue Non-fibrous Bound			100%	Vinyl	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab	NON-ASBES	_	ASBESTOS	
Lab ID	Description	Attributes	Fibrous	Non-F	ibrous	%
EC083018- B101749	-86 Mastic	Homogeneous Black Non-fibrous Bound		97%	Mastic	3% Chrysotile
EC083018- B101750	-87 Mastic	Homogeneous Black Non-fibrous Bound		97%	Mastic	3% Chrysotile
EC083018- B101751	-88 Mastic	Homogeneous Black Non-fibrous Bound		97%	Mastic	3% Chrysotile
EC083018- B101752	-89 Floor Tile	Homogeneous White,Black Non-fibrous Bound		97%	Vinyl	3% Chrysotile
EC083018- B101753	- 90 Floor Tile	Homogeneous White,Black Non-fibrous Bound		97%	Vinyl	3% Chrysotile
EC083018- B101754	-91 Floor Tile	Homogeneous White,Black Non-fibrous Bound		97%	Vinyl	3% Chrysotile
EC083018- B101755	-92 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab	NON-ASBES		ASBESTOS		
Lab ID	Description	Attributes	Fibrous	Non-F	ibrous	%	
EC083018-	93 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected	
EC083018-	94 Mastic	Homogeneous Black Non-fibrous Bound		100%	Mastic	None Detected	
EC083018- B101758	95 Stair Tread	Homogeneous Red,Brown Non-fibrous Bound		100%	Vinyl	None Detected	
EC083018-	96 Stair Tread	Homogeneous Red,Brown Non-fibrous Bound		100%	Vinyl	None Detected	
EC083018-9	97 Stair Tread	Homogeneous Red,Brown Non-fibrous Bound		100%	Vinyl	None Detected	
EC083018- B101761	98 Mastic	Homogeneous Yellow Non-fibrous Bound		98%	Mastic	2% Chrysotile	
EC083018- B101762	99 Mastic	Homogeneous Yellow Non-fibrous Bound		98%	Mastic	2% Chrysotile	



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333 **Date Received:** 09-11-18

Date Analyzed: 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBES Fibrous	TOS COMPOI Non-F	NENTS ibrous	ASBESTOS %
EC083018 -100 B101763	Mastic	Homogeneous Yellow Non-fibrous Bound		98%	Mastic	2% Chrysotile
EC083018 -101 B101764	Window Caulking	Homogeneous White Non-fibrous Bound		100%	Caulk	None Detected
EC083018 -102 B101765	Window Caulking	Homogeneous White Non-fibrous Bound		100%	Caulk	None Detected
EC083018 -103 B101766	Window Caulking	Homogeneous White Non-fibrous Bound		100%	Caulk	None Detected
EC083018 -104 B101767	Window Glazing	Homogeneous White Non-fibrous Bound		48% 25% 25%	Binder Calc Carb Silicates	2% Chrysotile
EC083018 -105 B101768	Window Glazing	Homogeneous White Non-fibrous Bound		48% 25% 25%	Binder Calc Carb Silicates	2% Chrysotile
EC083018 -106 B101769	Window Glazing	Homogeneous White Non-fibrous Bound		50% 25% 25%	Binder Calc Carb Silicates	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NOI Fibr	N-ASBESTOS (ous		NENTS ibrous	ASBESTOS %
EC083018 -107 B101770	Window Caulking	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected
EC083018 -108 B101771	Window Caulking	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected
EC083018 -109 B101772	Window Caulking	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected
EC083018 -110 B101773	Window Caulking	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected
EC083018 -111 B101774	Window Caulking	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected
EC083018 -112 B101775	Window Caulking	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected
EC083018 -113 B101776	Door Caulk	Heterogeneous Gray Fibrous Bound	10%	Fiberglass	45% 30% 15%	Binder Calc Carb Paint	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab	Lab NON-ASBESTOS COMPONENTS					
Lab ID	Description	Attributes	Fibr	ous	Non-l	Fibrous	%	
EC083018 -114 B101777	Door Caulk	Heterogeneous Gray Fibrous Bound	10%	Fiberglass	45% 30% 15%	Binder Calc Carb Paint	None Detected	
EC083018 -115 B101778	Door Caulk	Heterogeneous Gray Fibrous Bound	10%	Fiberglass	45% 30% 15%	Binder Calc Carb Paint	None Detected	
EC083018 -116 B101779	Pipe Elbows	Heterogeneous Off-white Fibrous Loosely Bound	40%	Fiberglass	30% 30%	Binder Calc Carb	None Detected	
EC083018 -117 B101780	Pipe Elbows	Heterogeneous Off-white Fibrous Loosely Bound	40%	Fiberglass	30% 30%	Binder Calc Carb	None Detected	
EC083018 -118 B101781	Pipe Elbows	Heterogeneous Off-white Fibrous Loosely Bound	40%	Fiberglass	30% 30%	Binder Calc Carb	None Detected	
EC083018 -119 B101782	Boiler Gasket	Homogeneous White Fibrous Loosely Bound	100%	Fiberglass			None Detected	
EC083018 -120 B101783	Boiler Gasket	Homogeneous White Fibrous Loosely Bound	100%	Fiberglass			None Detected	



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NOI Fibr	N-ASBESTOS ous		NENTS Fibrous	ASBESTOS %
EC083018 -121 B101784	Boiler Gasket	Homogeneous White Fibrous Loosely Bound	100%	Fiberglass			None Detected
EC083018 -122 B101785	Counter Top	Heterogeneous Brown Fibrous Tightly Bound	60%	Cellulose	20% 20%	Vinyl Binder	None Detected
EC083018 -123 B101786	Counter Top	Heterogeneous Brown Fibrous Tightly Bound	60%	Cellulose	20% 20%	Vinyl Binder	None Detected
EC083018 -124 B101787	Counter Top	Heterogeneous Brown Fibrous Tightly Bound	60%	Cellulose	20% 20%	Vinyl Binder	None Detected
EC083018 -125 B101788	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	50% 20%	Cellulose Fiberglass	25% 5%	Perlite Paint	None Detected
EC083018 -126 B101789	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	50% 20%	Cellulose Fiberglass	25% 5%	Perlite Paint	None Detected
EC083018 -127 B101790	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	50% 20%	Cellulose Fiberglass	25% 5%	Perlite Paint	None Detected



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: B188333

Date Received: 09-11-18 **Date Analyzed:** 09-12-18

Date Reported: 09-13-18

Project: White Swan Pre Demo; A139670124

Client ID Lab ID	Lab Description	Lab Attributes	NOI Fibr	N-ASBESTOS ous		NENTS Fibrous	ASBESTOS %
EC083018 -128 B101791	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	15%	Cellulose	5% 80%	Vinyl Gypsum	None Detected
EC083018 -129 B101792	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	15%	Cellulose	5% 80%	Vinyl Gypsum	None Detected
EC083018 -130 B101793	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	15%	Cellulose	5% 80%	Vinyl Gypsum	None Detected
EC083018 -131 B101794	Cement	Heterogeneous White,Gray Non-fibrous Tightly Bound			75% 22% 3%	Silicates Binder Paint	None Detected
EC083018 -132 B101795	Cement	Heterogeneous White,Gray Non-fibrous Tightly Bound			75% 22% 3%	Silicates Binder Paint	None Detected
EC083018 -133 B101796	Cement	Heterogeneous White,Gray Non-fibrous Tightly Bound			75% 22% 3%	Silicates Binder Paint	None Detected



LEGEND: Non-Anth = Non-Asbestiform Anthophyllite

Non-Trem = Non-Asbestiform Tremolite

Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. Estimated measurement of uncertainty is available on request.

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

ANALYST

APPROVED BY

Tianbao Bai, Ph.D., CIH Laboratory Director

NVLAP LAB CODE 101768-0



730 SE Maynard Rd, Cary, NC Tel: 919-481-1413 Fax: 919-4 COMPANY INFORMATION CEL CLIENT #: 27427 Company: CARNOW, CONIBE		CEI Lab Code: CEI Lab I.D. Range: PROJECT INFORMATION Job Contact: Evan Christian Email / Tel: 312-296-1287						
Address: 600 W. Van Buren St	t., Ste 500		Project Nan	ne: White	2 Swan	Pre D	emo	
Chicago, IL 60607		Project ID#	A1376	0129				
Email:		PO #:						
Tel: 312-762-2920		STATE SA	MPLES COL	LECTED IN	i: IL			
GENERAL INSTRUCTIONS						e ve som	in the same	
POSITIVE STOP ANALYSIS			PLM DUE	DATE:	/	1		
ANALYZE NOB'S BY TEM			TEM DUE		1	1		
	F TAT IS NOT MARKI	ED STAND	ABD 2 DA	V TAT ADD	I IEC			
	F TAT IS NOT WARRI	-D STAND	AKD 3 DA	The State of the Land	OUND TIME			
ASBESTOS	METHOD	4 HR	8 HR	24 HR	2 DAY	3 DAY	5 DAY	
PLM BULK	EPA 600				浏			
PLM POINT COUNT (400)	EPA 600							
PLM POINT COUNT (1000)	EPA 600				21			
PLM GRAV w POINT COUNT	EPA 600							
PCM AIR	NIOSH 7400							
TEM AIR AHERA	EPA AHERA							
TEM AIR NIOSH	NIOSH 7402							
TEM BULK	CHATFIELD							
TEM DUST WIPE	ASTM D6480-05							
TEM DUST MICROVAC	ASTM D5755-09							
TEM SOIL	ASTM D7521-13							
TEM VERMICULITE	CINCINNATI METHOD							
OTHER:								
REMARKS: Please email	@ccaltd.co		ved By:		ccept Sample eject Sample			
Em/mh	9/10/18 1/-00 Am	1		MSV	9/11	9:5ē	>	
V								



COMPANY CONTACT INFORMATION		
Company: Carnow Conibear	Job Contact: Evan Chn3Han	
Project Name: RPS Pre Demo - White Swan		
Project ID #: A139670124	Tel: 312-246-1287	

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA		TEST
EC083018-01	9×9 Floor Tile-Light 1st Flis	AREA	PLM	TEM -
02	Brown Gym		PLM	TEM
03	201		PLM	TEM
04			PLM	TEM
05			PLM	TEM
00) 11 6		PLM	TEM
0			PLM	TEM
08	The Company of the		PLM	TEM
09	1 Library		PLM	TEM
10	4" Black Buseboard		PLM	TEM
11			PLM	TEM
12			PLM	TEM
13	Glue Pehind Black		PLM	TEM
14	Baselpano		PLM	TEM
15			PLM	TEM
16	Hour Pipe Joint Insulation Marinelle on Fiberglass Pipe 194 Fl. Ha		PLM	TEM
- 17	on Fiberglass Pipe 154 Fl. Ha	4/	PLM	TEM
18	W Ryns Kitcher		PLM	TEM
19	12x12 Floor Tite w Stair		PLM	TEM
20	Black + White 1st East compor	-	PLM	TEM
2	111		PLM	TEM '
27	Mustic beneath		PLM	TEM
259	Black + White		PLM	TEM
24	V Flour Tite		PLM	TEM
29	Drustall Coox		PLM	TEM
26	202		PLM	TEM
27	AVIKIN		PLM	TEM
28	Injural Joint Compound Copy		PLM	TEM
1/ 29	702		PLM	TEM
30	Art Rm		PLM	TEM

Page	of



COMPANY CONTACT INFORMATION			
Company: Carnow Conibear	Job Contact:		
Project Name: White Swam			
Project ID #:	Tel:		

0.4MDI 5 10#	DESCRIPTION (LOCATION)	VOLUME/			
SAMPLE ID#	DESCRIPTION / LOCATION	AREA	PLM	-	TEST TEM T
Eco83018 - 31	Tectum Ceiling Panels Fort Stor				
32	Gym		PLM		TEM
33	V		PLM		TEM
34	Rev Terrazzo 15t viest		PLM		TEM
35	Bathoons		PLM		TEM
36	V)		PLM		TEM
37	9×9 Flow Tile- 1st corredor		PLM		TEM
38	1 Redish Brown 109		PLM		TEM
34	V 2nd Corrido	V	PLM		TEM
40	Black Mustic beneath		PLM		TEM
41	Redish Brown Floorlike		PLM		TEM
42	11/		PLM		TEM
43	12x12 Floor Tile-Tun, Kitchen	A Fany	K PLM		TEM ~
19	Brown White	AN IRMAN	Z #LM		TEM
45	W 2700W, VV	VAJ Was	PLM		TEM
46	White Laminute Black	- V	PLM		TEM
47	Country Tag Mast Jour		PLM		TEM
48	White Laminute Black Covater Top Mastinov Tiles		PLM		TEM
49	12×12 Floor Tites-		PLM		TEM
50	1 Gray+ Black		PLM	Ħ	TEM 🗀
6	W years		PLM	Ħ	TEM
52	Mastic beneath		PLM		TEM -
53	Cray + Black Flow		PLM		TEM
54	1, 64		PLM		TEM
79	Pluster Down E		PLM		TEM
36			PLM	 	TEM C
57	How Coat		PLM	 	TEM
58	12-417 House Tips - 154 Hall &			1=	
59	10 FIC TION TOO		PLM		TEM
60	I Red 2nd Have		PLM		TEM
V 61	211		PLM		TEM

ECO83018-55 Not Submitted

Page	of	
------	----	--



COMPANY CONTACT INFORMATION				
Company: Carnow Conibear	Job Contact:			
Project Name: White Swam				
Project ID #:	Tel:			

		VOLUME/		
SAMPLE ID#	DESCRIPTION / LOCATION	AREA	T	EST
EC083018- 62	Mustic beneath		PLM	TEM
1 63			PLM	TEM
64	V	CI	PLM	TEM
65	12 x12 How Tiles - WAR 15	et Hull	PLM	TEM
64	1 Blue	01 0100	PLM	TEM
67	V		PLM 🗀	TEM
68	Tom Mastic beneath		PLM	TEM
69	Blue Flew Tites		PLM	TEM
70	V		PLM	TEM
71	Eberbuard Sound Library		PLM	TEM
72	Panels		PLM	TEM
73	\/		PLM	TEM
74	Olive Laminate 3	Les	PLM	TEM
75	1 Stew Trems		PLM	TEM
70	V		PLM	TEM
77	Mastic hengoth		PLM	TEM
78			PLM	TEM
79			PLM	TEM
90	Word Grain Luminute upper		PLM	TEM
81	Country lop Works	UOV*	PLM	TEM
82			PLM	TEM
83	12×12 FloorTites- 209		PLM	TEM
84	12×12 Flour Tiles- 209 1 hight + Dark Blue		PLM	TEM
85			PLM	TEM ~
40	Aladed la ate		PLM	TEM
467			PLM	TEM -
84			PLM	TEM
89	12x12 How Tites - SW WON	KIDOM	PLM	TEM
1/ 90	1 White W/Black Spots 1		PLM	TEM
V 91			PLM	TEM

Page	of	



COMPANY CONTACT INFORMATION			
Company: Carnow Conibear	Job Contact:		
Project Name: White Swan			
Project ID #:	Tel:		

SAMPLE ID#		VOLUME/ AREA		TEST
Ec083018 - 92	Mastre beneath		PLM	TEM
93	1 White W/Black		PLM	TEM
94	V Flow Tites		PLM	TEM
95	Red Marble famoustal ?		PLM	TEM
16	1 Start Treat Tite Sw Work	NOOM	PLM	TEM
97	V		PLM	TEM
98	Tun Mastic beneath		PLM	TEM
99	red Stury trend		PLM	TEM
100			PLM	TEM
(0)	Interior Window Caulk Obios	,	PLM	TEM
102	104		PLM	TEM
103	107		PLM	TEM
104	Exterior Wondow Glazing		PLM	TEM
105	1 Gray White		PLM	TEM
106	W // //		PLM	TEM
107	Gray Extensor Woodow		PLM	TEM
108	1 Cours		PLM	TEM
109	V		PLM	TEM
110	Extens Cray Univert		PLM	TEM
111	1 CavIK		PLM	TEM
112	W Comed		PLM	TEM
113	William Extensiv and		PLM 🗀	TEM
114	Carl		PLM	TEM
115			PLM	TEM
116	Hund Elbows on Fiberglass Pip		PLM	TEM
117	1) Breeching Insolution Bree	hing	PLM 🔲	TEM
118			PLM	TEM
1 119	Boiler Gaskets		PLM 🗀	TEM
1/ 120			PLM	TEM
121	I V		PLM	TEM

Page	of	



CARNOW

COMPANY CONTACT INFORMATION						
Company: Carnow Conibear	Job Contact:					
Project Name: White Swam						
	Tel:					

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TE	:ST
Eco83018 - 12Z	White Laminate Kitchen	ANLA	PLM 🗍	TEM 🗀
1 123	Country Top		PLM	TEM 🗀
174	IV 80 WEW TOP		PLM D	TEM 🗀
125	2x4 Ceiling Tiles - Library		PLM D	TEM
124	Gouges		PLM	TEM
12.7	1 12 11 0		PLM	TEM
128	2+4 Smooth 110 Buth	Cunsul	PLM D	TEM
129	Gussin Culie Tites	70009	PLM	TEM
130	V 7700 CONTYMO		PLM	TEM
[3]	Ext. Cement Plaster		PLM	TEM
, 132	1 Overhangs		PLM	TEM
133	1		PLM	TEM
			PLM	TEM
A-2			PLM	TEM
			PLM	TEM

_	•	
Page	ot	



September 25, 2018

Carnow, Conibear & Assoc., Ltd. 600 W Van Buren St Ste 500 Chicago, IL 60607

CLIENT PROJECT: White Swan Pre Demo; A139670124

CEI LAB CODE: A1811175

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on September 24, 2018. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

Tianbao Bai, Ph.D., CIH Laboratory Director





ASBESTOS ANALYTICAL REPORT By: Polarized Light Microscopy

Prepared for

Carnow, Conibear & Assoc., Ltd.

CLIENT PROJECT: White Swan Pre Demo; A139670124

LAB CODE: A1811175

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 09/25/18

TOTAL SAMPLES ANALYZED: 9

SAMPLES >1% ASBESTOS: 3



By: POLARIZING LIGHT MICROSCOPY

PROJECT: White Swan Pre Demo; A139670124 LAB CODE: A1811175

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
ECO9218-01		A116912	Black,White	Roof Field	None Detected
ECO9218-02		A116913	Black,White	Roof Field	None Detected
ECO9218-03		A116914	Black,White	Roof Field	None Detected
ECO9218-04		A116915	Black,White	Roof Flashing	None Detected
ECO9218-05		A116916	Black,White	Roof Flashing	None Detected
ECO9218-06		A116917	Black,White	Roof Flashing	None Detected
ECO9218-07		A116918	Black	Roof Field	Chrysotile 10%
ECO9218-08		A116919	Black	Roof Field	Chrysotile 10%
ECO9218-09		A116920	Black	Roof Field	Chrysotile 10%



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: A1811175 **Date Received:** 09-24-18

Date Analyzed: 09-24-18

Date Reported: 09-25-18

Project: White Swan Pre Demo; A139670124

Client ID	Lab	Lab	NOI	N-ASBESTOS C	OMPO	NENTS	ASBESTOS
Lab ID	Description	Attributes	Fibrous		Non-Fibrous		%
ECO9218-01 A116912		Heterogeneous Black,White Fibrous Loosely Bound	50% 10%	Cellulose Fiberglass	35% 5%	Foam Mastic	None Detected
ECO9218-02 A116913	Roof Field	Heterogeneous Black,White Fibrous Loosely Bound	50% 10%	Cellulose Fiberglass	35% 5%	Foam Mastic	None Detected
ECO9218-03 A116914	Roof Field	Heterogeneous Black,White Fibrous Loosely Bound	50% 10%	Cellulose Fiberglass	35% 5%	Foam Mastic	None Detected
ECO9218-04 A116915	Roof Flashing	Heterogeneous Black,White Fibrous Loosely Bound	20% 5% 5%	Cellulose Fiberglass Synthetic Fiber	40% 5% · 25%	Rubber Mastic Foam	None Detected
ECO9218-05 A116916	Roof Flashing	Heterogeneous Black,White Fibrous Loosely Bound	20% 5% 5%	Cellulose Fiberglass Synthetic Fiber	40% 5% · 25%	Rubber Mastic Foam	None Detected
ECO9218-06 A116917	Roof Flashing	Heterogeneous Black,White Fibrous Loosely Bound	20% 5% 5%	Cellulose Fiberglass Synthetic Fiber	40% 5% · 25%	Rubber Mastic Foam	None Detected
ECO9218-07 A116918	Roof Field	Heterogeneous Black Fibrous Bound	10%	Cellulose	45% 35%	Tar Gravel	10% Chrysotile



By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: A1811175 **Date Received:** 09-24-18

Date Analyzed: 09-24-18

Date Reported: 09-25-18

Project: White Swan Pre Demo; A139670124

Client ID Lab Lab ID Description				NON-ASBESTOS COMPONENTS Fibrous Non-Fibrous			ASBESTOS %
ECO9218-08 A116919	Roof Field	Heterogeneous Black Fibrous Bound	10%	Cellulose	45% 35%	Tar Gravel	10% Chrysotile
ECO9218-09 A116920	Roof Field	Heterogeneous Black Fibrous Bound	10%	Cellulose	55% 25%	Tar Gravel	10% Chrysotile



LEGEND: Non-Anth = Non-Asbestiform Anthophyllite

Non-Trem = Non-Asbestiform Tremolite

Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

ANALYST:

APPROVED BY:

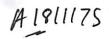
Tianbao Bai, Ph.D., CIH Laboratory Director

NVLAP LAB CODE 101768-0



A1811175 (9) CHAIN OF CUSTODY

730 SE Maynard Rd, Cary, NC 27511 Tel: 919-481-1413 Fax: 919-481-1442 COMPANY INFORMATION			CEI Lab I.C	ode: AV D. Range:	\$1175 AHT &	(9) t!!6911	2-A1139				
			PROJECT INFORMATION								
CEI CLIENT #: 27427					Job Contact: Evan Christian						
Company: CARNOW, CONIBE	EAR & ASSOC.			312-296-12	1	2 0					
Address: 600 W. Van Buren S	t., Ste 500		Project Nar	me: Whit	e Twan t	ne Jeme	ن				
Chicago, IL 60607			Project ID#	A1390	070124						
Email:			PO #:								
Tel: 312-762-2920	Fax: 312.782.5145		STATE SA	MPLES CO	LLECTED IN	: IL					
GENERAL INSTRUCTIONS											
POSITIVE STOP ANALYSIS		PLM DUE	DATE:	1	1						
ANALYZE NOB'S BY TEM		TEM DUE		1	1						
				- 2 - 2 - 2 - 2							
	F TAT IS NOT MARK	ED STANL	DARD 3 DA	The same of							
					OUND TIME						
ASBESTOS	METHOD	4 HR	8 HR	24 HR	2 DAY	3 DAY	5 DAY				
PLM BULK	EPA 600		⊢	<u> </u>			⊢				
PLM POINT COUNT (400)	EPA 600		⊢	-			片				
PLM POINT COUNT (1000)	EPA 600										
PLM GRAV w POINT COUNT	EPA 600			-	-						
PCM AIR	NIOSH 7400		- 片		- H $-$	-					
TEM AIR AHERA	EPA AHERA	片	-	片		-	井				
TEM AIR NIOSH	NIOSH 7402					-	- - - - - - - - - - - - - -				
TEM BULK	CHATFIELD ASTM D6480-05			\exists			금				
TEM DUST WIPE	ASTM D5755-09			-		一一					
TEM DUST MICROVAC TEM SOIL	ASTM D3753-09 ASTM D7521-13					一一	믐				
TEM VERMICULITE	CINCINNATI METHOD						금				
OTHER:	CINCINNATIWETHOD				一一	$\overline{}$	$\overline{}$				
REMARKS: Please emai	results to echristian			ved By:		ccept Sample eject Sample Date/Time					
Fru / hill	9/21/18 11:000			U	9/24	9:10					
Vun jun	110.110 11.001	**(U	1 1119	7-10					





CARNOW CONIBEAR

COMPANY CONTACT INFORMATION		
Company: Carnow Conibear	Job Contact: Erun (m3Ham	
Project Name: White Swam PreDemo		
Project ID #: A139670124	Tel: 312-246-1287	

		VOLUME/		
SAMPLE ID#	DESCRIPTION / LOCATION	AREA		ST
ECC9218- 01	Ruot Field Mary Blog		PLM	TEM
1 02	2 1		PLM	TEM
03	V		PLM	TEM
04	Roof Plashing		PLM	TEM
05			PLM	TEM
06	V		PLM	TEM
07	Ruof field Addition		PLM	TEM
1/ 08			PLM	TEM
V 09	V		PLM	TEM
and the same of th		L ag	PLM	TEM
			PLM	TEM
			PLM	TEM
-, -			PLM	TEM
			PLM	TEM
			PLM	TEM
		102 1 -	PLM	TEM
			PLM	TEM

Page	of



October 3, 2018

Carnow, Conibear & Assoc., Ltd. 600 W Van Buren St Ste 500 Chicago, IL 60607

CLIENT PROJECT: White Swan PreDemo; A139670124

CEI LAB CODE: A1811910

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on October 3, 2018. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

Tianbao Bai, Ph.D., CIH Laboratory Director





ASBESTOS ANALYTICAL REPORT By: Polarized Light Microscopy

Prepared for

Carnow, Conibear & Assoc., Ltd.

CLIENT PROJECT: White Swan PreDemo; A139670124

LAB CODE: A1811910

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 10/03/18

TOTAL SAMPLES ANALYZED: 9

SAMPLES >1% ASBESTOS: 3



Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: White Swan PreDemo; A139670124 LAB CODE: A1811910

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	C	olor	Sample Description	ASBESTOS %
EC100118A-01		A129716	Та	ın	Adhesive	None Detected
EC100118A-02		A129717	Ta	ın	Adhesive	None Detected
EC100118A-03		A129718	Та	ın	Adhesive	None Detected
EC100118A-04		A129719	W	hite	Leveling Compound	None Detected
EC100118A-05		A129720	W	hite	Leveling Compound	None Detected
EC100118A-06		A129721	W	hite	Leveling Compound	None Detected
EC100118A-07		A129722	Gr	ay	Transite	Chrysotile 20%
EC100118A-08		A129723	Gr	ay	Transite	Chrysotile 20%
EC100118A-09		A129724	Gr	ay	Transite	Chrysotile 20%



ASBESTOS BULK ANALYSIS

Lab Code:

By: POLARIZING LIGHT MICROSCOPY

A1811910

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Date Received: 10-03-18 Date Analyzed: 10-03-18 Chicago, IL 60607 Date Reported: 10-03-18

Project: White Swan PreDemo; A139670124

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID	Lab	Lab	NO	N-ASBESTOS	СОМРО	NENTS	ASBESTOS
Lab ID	Description	Attributes	Fib	rous	Non-F	ibrous	%
EC100118A -01 A129716	Adhesive	Heterogeneous Tan Fibrous Bound	2%	Cellulose	98%	Mastic	None Detected
EC100118A -02 A129717	Adhesive	Heterogeneous Tan Fibrous Bound	2%	Cellulose	98%	Mastic	None Detected
EC100118A -03 A129718	Adhesive	Heterogeneous Tan Fibrous Bound	2%	Cellulose	98%	Mastic	None Detected
EC100118A - 04 A129719	Leveling Compound	Heterogeneous White Non-fibrous Bound			70% 30%	Calc Carb Binder	None Detected
EC100118A -05 A129720	Leveling Compound	Heterogeneous White Non-fibrous Bound			70% 30%	Calc Carb Binder	None Detected
EC100118A -06 A129721	Leveling Compound	Heterogeneous White Non-fibrous Bound			70% 30%	Calc Carb Binder	None Detected
EC100118A -07 A129722	Transite	Heterogeneous Gray Fibrous Loosely Bound			60% 20%	Binder Calc Carb	20% Chrysotile



ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Carnow, Conibear & Assoc., Ltd.

600 W Van Buren St Ste 500

Chicago, IL 60607

Lab Code: A1811910 **Date Received:** 10-03-18

Date Analyzed: 10-03-18

Date Reported: 10-03-18

Project: White Swan PreDemo; A139670124

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes				ASBESTOS %
EC100118A	Transite	Heterogeneous		60%	Binder	20% Chrysotile
-08		Gray		20%	Calc Carb	
A129723		Fibrous				
		Loosely Bound				
EC100118A	Transite	Heterogeneous		60%	Binder	20% Chrysotile
-09		Gray		20%	Calc Carb	
A129724		Fibrous				
		Loosely Bound				



LEGEND: Non-Anth = Non-Asbestiform Anthophyllite

Non-Trem = Non-Asbestiform Tremolite

Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

ANALYST

APPROVED BY:

Tianbao Bai, Ph.D., CIH Laboratory Director

NVLAP LAB CODE 101768-0



CHAIN OF CUSTODY

			CEI Lab Code: CEI Lab I.D. Range: A 129 70 A 129 724 PROJECT INFORMATION Job Contact: Evan Christian Email / Tel: 312-296-1287 Project Name: White Swam Predeme Project ID# A 34670124				
Chicago, IL 60607				1115901	0101		
Email:			PO#:				
Tel: 312-762-2920	Fax: 312.782.5145		STATE SAI	MPLES COL	LECTED IN	N: IL	
GENERAL INSTRUCTIONS							
POSITIVE STOP ANALYSIS			PLM DUE	DATE:	-	, ,	~
ANALYZE NOB'S BY TEM			TEM DUE	DATE:		,	
	IO NOT IA DI		400 004	V TAT ADD	V 150	distance of the	All the second
	F TAT IS NOT MARKI	DSTAND	ARD 3 DA	TÜRN ARÖ	and the second	tox to	
ASBESTOS	METHOD	4 HR	8 HR	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600		섮				
PLM POINT COUNT (400)	EPA 600						
PLM POINT COUNT (1000)	EPA 600						
PLM GRAV w POINT COUNT	EPA 600						
PCM AIR	NIOSH 7400						1
TEM AIR AHERA	EPA AHERA						ř
TEM AIR NIOSH	NIOSH 7402						
TEM BULK	CHATFIELD						
TEM DUST WIPE	ASTM D6480-05						
TEM DUST MICROVAC	ASTM D5755-09						
TEM SOIL	ASTM D7521-13						
TEM VERMICULITE	CINCINNATI METHOD						
OTHER:							
REMARKS: Please email results to echristian@cca Relinguished By: Date/Time				ved By:		ccept Samp	es
Fam Mich	10/1/18 1-0PM			[0	at u	013 9:	W
C VVVV IIV	110			V-1	771		



CARNOW CONIBEAR

COMPANY CONTACT INFORMATION	4
Company: Carnow Conibear	Job Contact:
Project Name: White Sun Prellemo	
Project ID#: A139670174	Tel:

244DI T ID#	DESCRIPTION (LOCATION	VOLUME/		
SAMPLE ID#	Tun Chalkboard Adherive	AREA	,	ST
	Jun (Na K Doard Ho he live		PLM	TEM
03	1		PLM	TEM
03	V		PLM	TEM
04	White Floor Leveling		PLM	TEM
05	[Compound		PLM	TEM
(Xe	V '		PLM	TEM
07	Transite type (halkboard Bu		PLM 📥	TEM
08	White Floor Leveling Compound V Transite type (halkboar) But between 205	0 207	PLM 📥	TEM
V/ 09	V		PLM 📥	TEM
·			PLM	TEM
	\		PLM	TEM
			PLM	TEM

Page	of	
_		

ATTACHMENT B

Evan Christian

Illinois Licensed Building Inspector, Project Manager, Air Sampling Professional and Management Planner



ASBESTOS PROFESSIONAL LICENSE

ID NUMBER 100 - 19466 ISSUED 3/15/2018 EXPIRES 05/15/2019

EVAN I CHRISTIAN 600 W VAN BUREN ST., STE 5 CHICAGO, IL 60607

Environmental Health



ENDORSEMENTS TC EXPIRES

INSPECTOR 11/28/2018

MANAGEMENT PLANNER 1/5/2019 PROJECT MANAGER 12/5/2018

AIR SAMPLING PROFESSIONAL

Alteration of this license shall result in legal action
This license issued under authority of the State of Illinois
Department of Public Health
This license is valid only when accompanied by a valid
training course certificate.





OCCUPATIONAL TRAINING & SUPPLY, INC. 7233 S. Adams Street • Willowbrook, IL 60527 • (630) 655-3900 • www.otssafety.com

Asbestos Building Inspector Refresher

Occupational Training & Supply, Inc. certifies that

Evan Christian

70%. The course is accredited by the Illinois Department of Public Health and Indiana Department of Environmental Management for purposes has successfully completed the Asbestos Building Inspector Refresher course and has passed the competency exam with a minimum score of of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency response Act (AHERA) and TSCA Title II.

Course Date: 11/28/2017

Exam Date: 11/28/2017

Expiration Date: 11/28/2018

Certificate Number: BIR1711284928

Kathy DeSalvo, Director

let, De Salin