Technical Exhibit 6

Limited Hazardous Building Material Survey
WRC Building 32
National Oceanic and Atmospheric Administration (NOAA)

7600 Sand Point Way NE
Seattle, Washington

EHSI Project No. 11527

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April 2022

- Environmental Consulting
- Hazardous Materials Management
- Industrial Hygiene Services
- Construction Management
- Indoor Air Quality

1. DRAWING IS SCHEMATIC AND SAMPLE LOCATIONS ARE APPROXIMATE.
2. REFER TO REPORT FOR MORE INFORMATION ABOUT THE SAMPLED MATERIALS.
3. BACKGROUND DRAWING WAS PREPARED BASED ON SKETCHES PREPARED IN THE FIELD.

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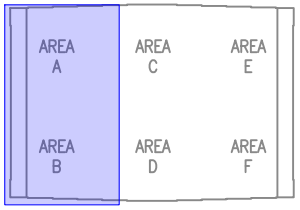

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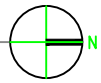

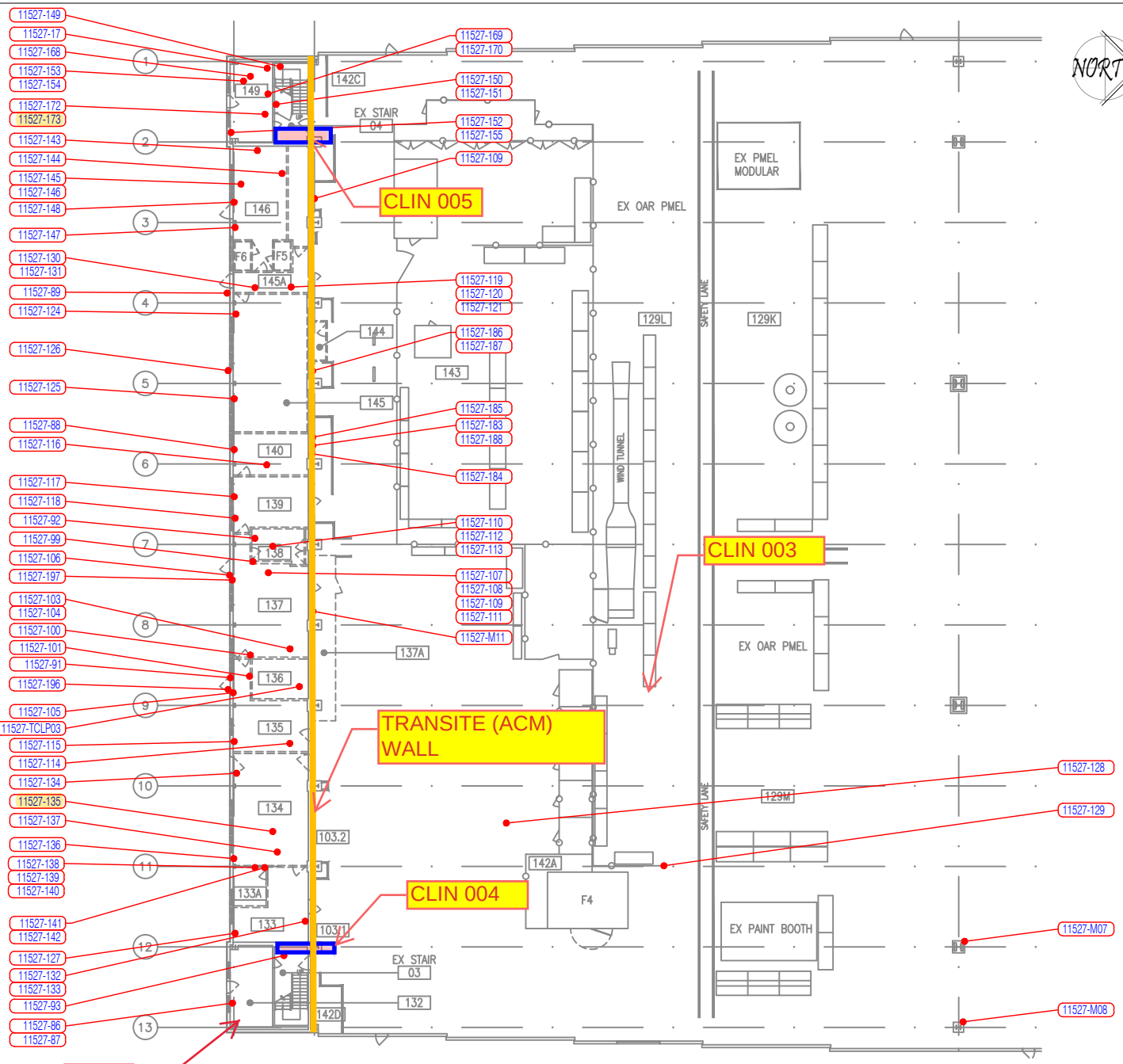

ehsi A Subsidiary of Environmental Strategies 1011 SW Klickitat Way, Suite 104 Seattle, Washington 98134 Ph: 206.381.1128 Fax: 206.254.4279	PROJECT INFO: HAZARDOUS MATERIALS SURVEY HANGAR 32 SHELL & CORE NOAA WESTERN REGIONAL CENTER 7600 SAND POINT WAY NE SEATTLE, WA AKS PS, INC SEATTLE, WA	SURVEY: 11527-172 10/25/21-10/29/21 11/01/21-11/05/21 12/06/21	PROJECT MANAGER: S. JOSHI DRAWN BY: F. DIMALANTA	INSPECTORS: S. JOSHI M. MACFARLANE	LEGEND: 11527-XX BULK ASBESTOS SAMPLE LOCATIONS 11527-MXX BULK PCB/RCRA 8 SAMPLE LOCATIONS 11527-TCLPXX BULK TCLP SAMPLE LOCATIONS 0000 ROOM IDENTIFIER	DRAWING TITLE: FIRST FLOOR PLAN SOUTH	ISSUE DATE: 11/10/21 SCALE: NTS	EHSI PROJECT # 11527-01 SHEET SL-1

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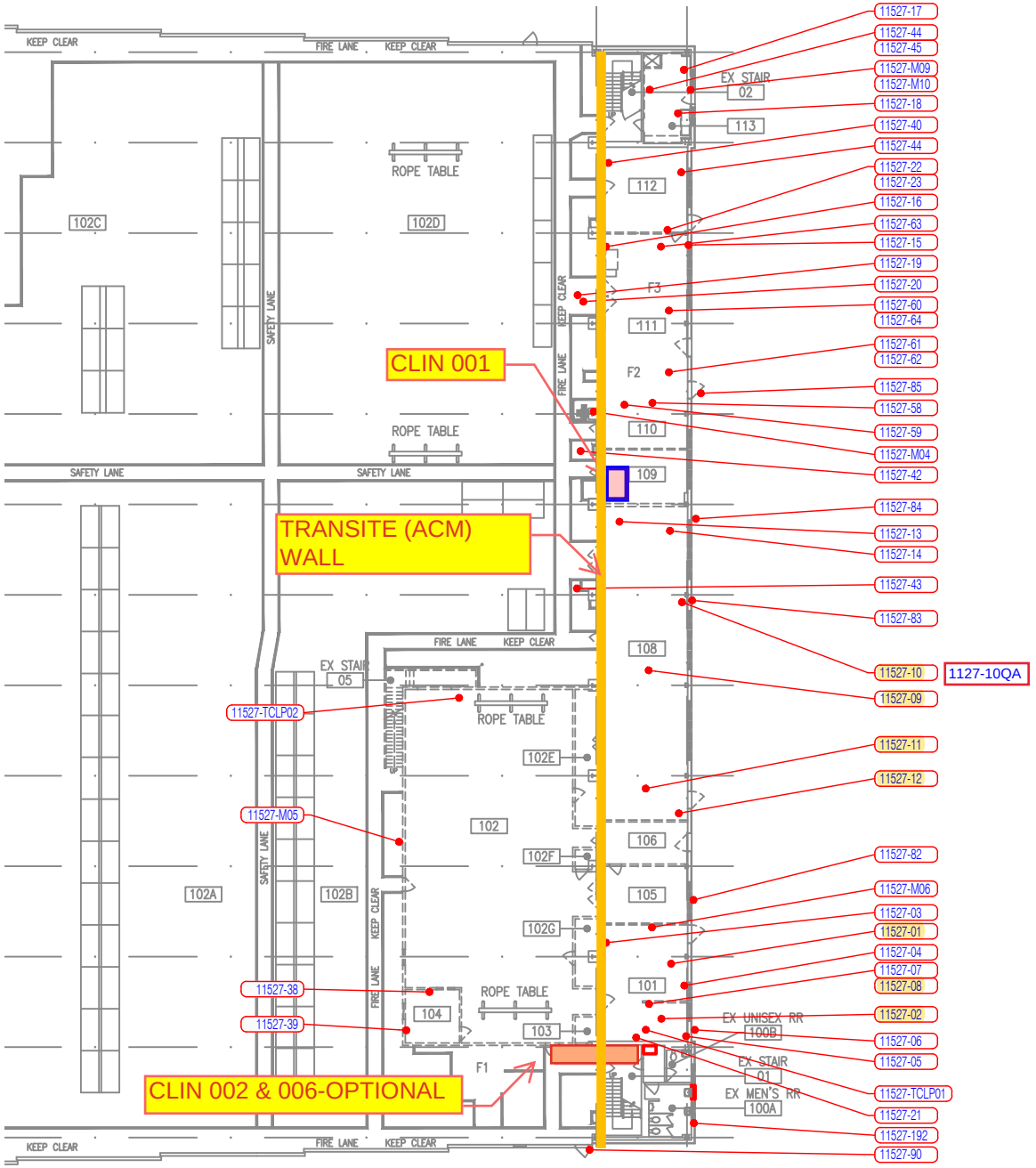

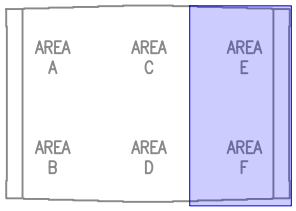

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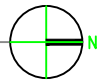

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AKS PS, INC
SEATTLE, WA

SURVEY DATES:
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12/06/21

PROJECT MANAGER:
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LEGEND:
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11527-MXX — BULK PCB/RCRA 8 SAMPLE LOCATIONS
11527-TCLPXX — BULK TCLP SAMPLE LOCATIONS
0000 — ROOM IDENTIFIER

DRAWING TITLE:
FIRST FLOOR PLAN
NORTH

ISSUE DATE:
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SHEET
SL-2

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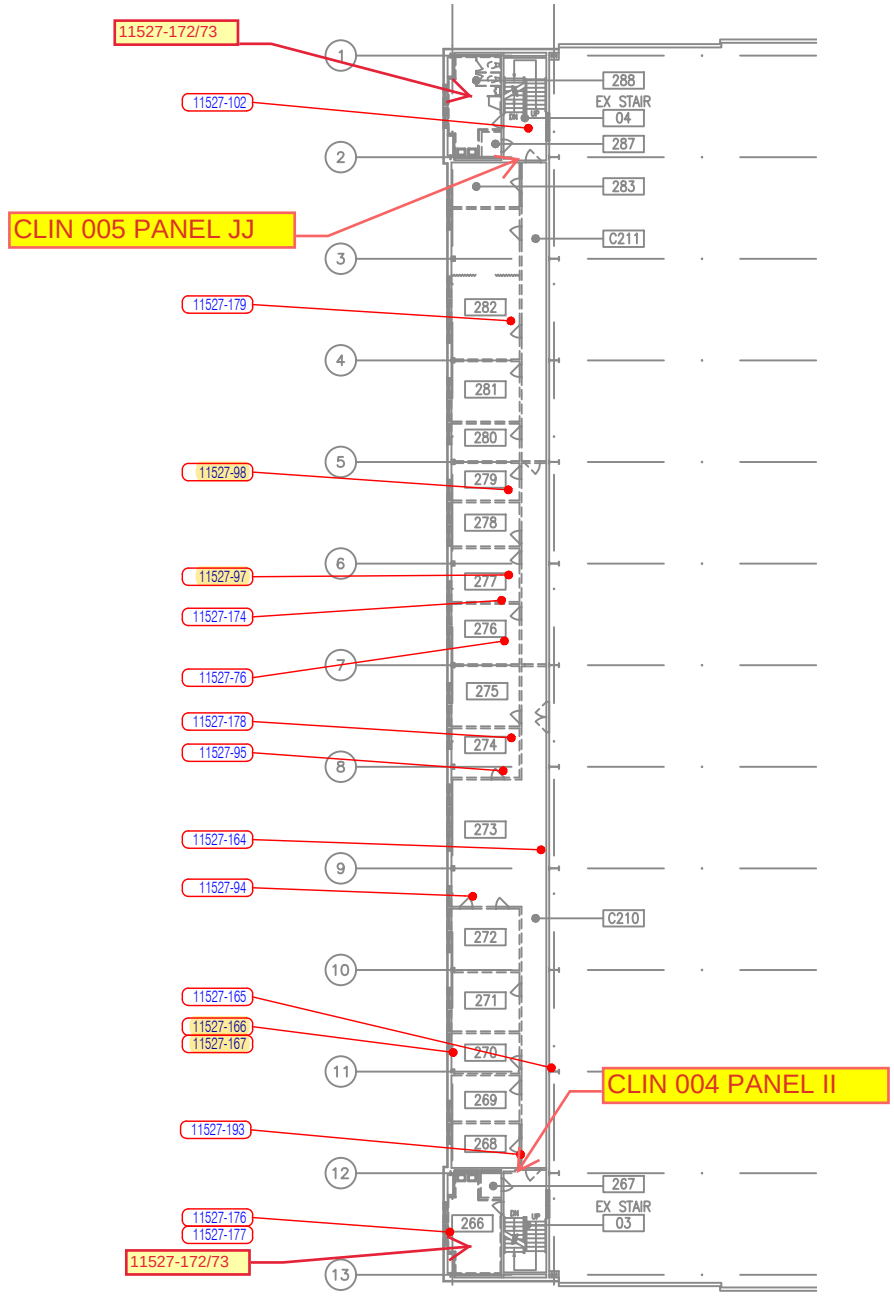

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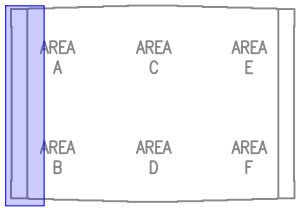

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INSPECTORS:
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M. MACFARLANE

LEGEND:
11527-XX BULK ASBESTOS SAMPLE LOCATIONS
0000 ROOM IDENTIFIER

DRAWING TITLE:
SECOND FLOOR PLAN
SOUTH

ISSUE DATE:
11/10/21

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NTS

EHSI PROJECT #
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SHEET
SL-3

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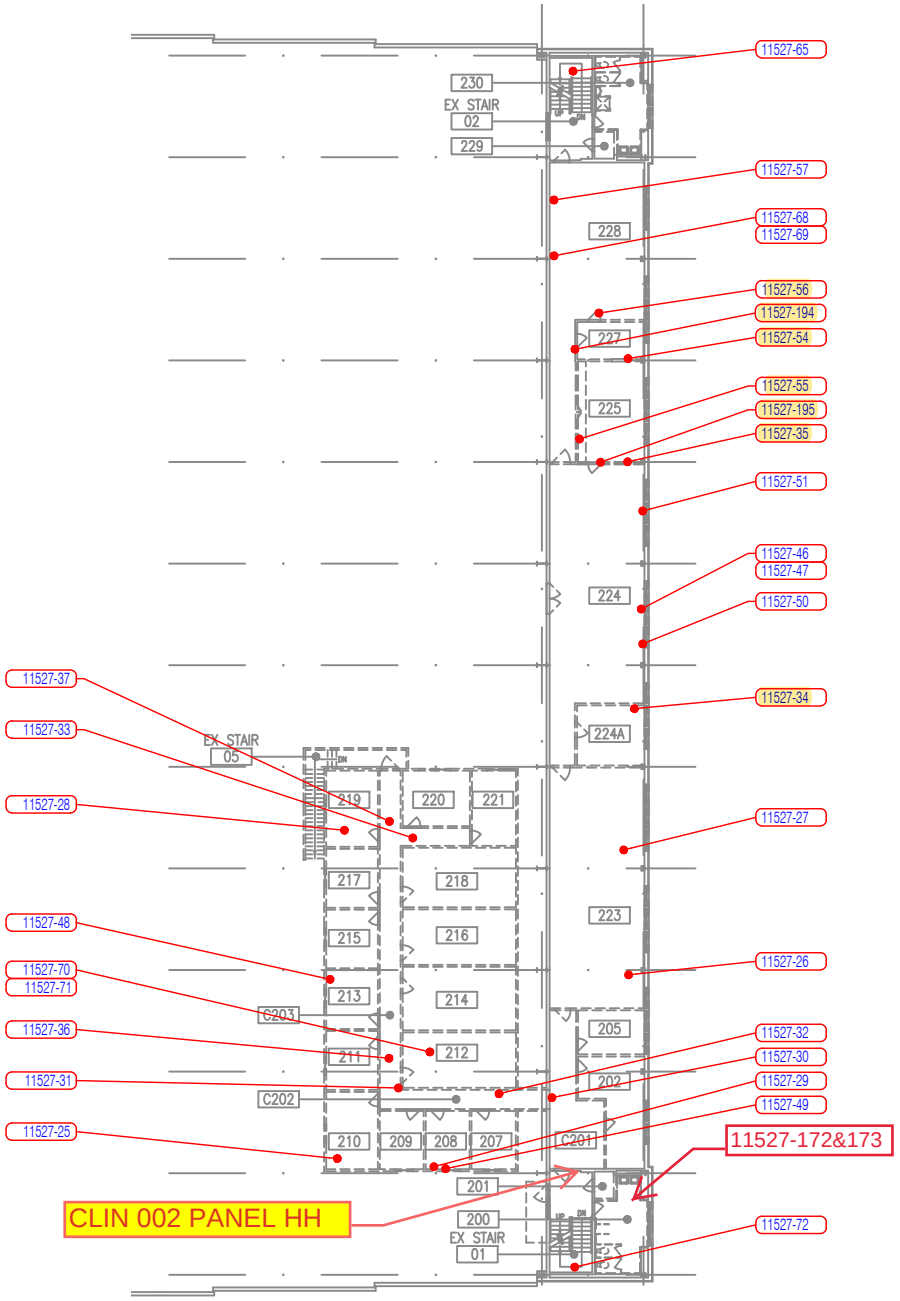

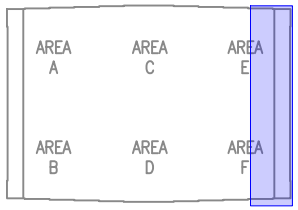

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LEGEND:
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DRAWING TITLE:
SECOND FLOOR PLAN
NORTH

ISSUE DATE:
11/10/21

SCALE:
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EHSI PROJECT #
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SHEET
SL-4

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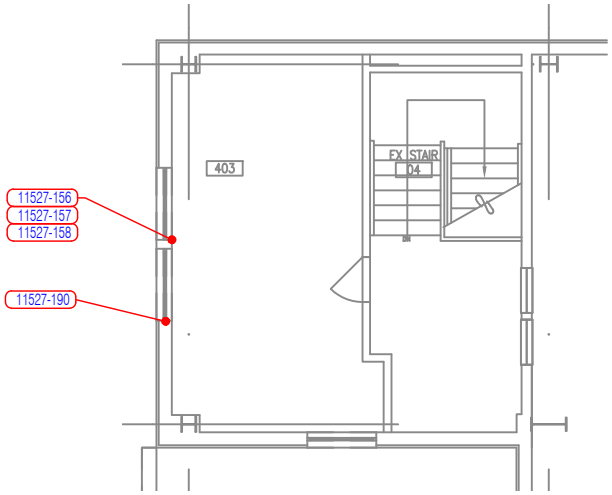

AREA A

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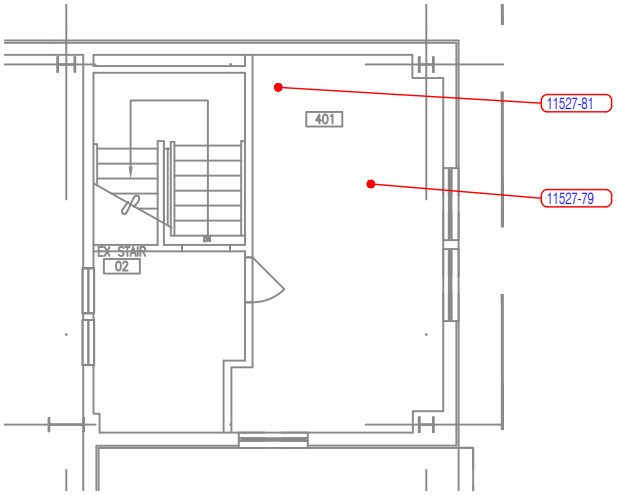

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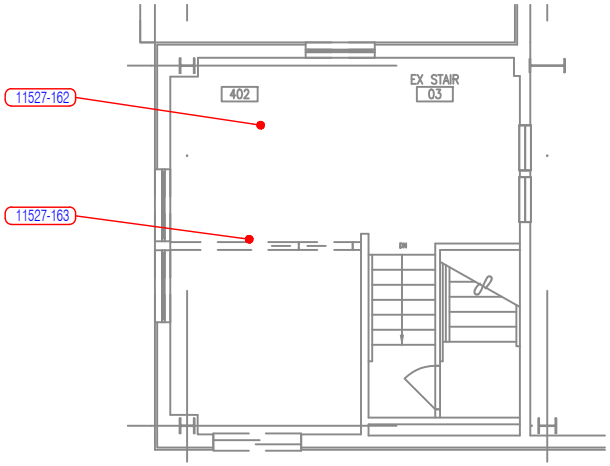

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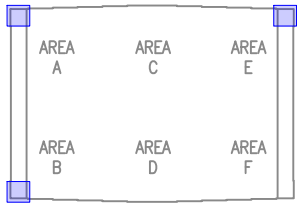

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INSPECTORS:
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M. MACFARLANE

LEGEND:
11527-XX BULK ASBESTOS SAMPLE LOCATIONS
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DRAWING TITLE:
FOURTH FLOOR PLAN

ISSUE DATE:
11/10/21

SCALE:
NTS

EHSI PROJECT #
11527-01

SHEET
SL-6

1.0 EXECUTIVE SUMMARY

AKS Architecture has contracted EHS-International, Inc. (EHSI), a hazardous materials and industrial hygiene consulting firm, to conduct a Limited Hazardous Materials Survey of AKS NOAA Hangar 32 located at 7600 Sand Point Way NE, Seattle, Washington (Site). EHSI understands that the survey will be used in project planning for upcoming renovation of the Site.

The limited hazardous materials survey included asbestos-containing materials (ACM); regulated-metals-containing paint (RCRA-8); polychlorinated biphenyl (PCB)-containing paint, light ballasts, and bulk materials; mercury-containing fluorescent light tubes, freezers/fridges, and thermostats; and other regulated materials. This survey was performed in accordance with federal, state, and local regulatory requirements. Each regulated material included in the survey is summarized below.

Previous Reports

EHSI reviewed the following reports in preparation for this survey:

- Raven Services Corporation – Asbestos Management Report, 1/20/98
- Unknown – NOAA WRC ACBM Location CAD Interior 2/24/20
- Ahtna Global, LLC – Good Faith Survey, Hangar 32 Reroofing, 3/17/21

Asbestos-Containing Building Materials

EHSI collected one hundred eighty-nine (189) bulk samples of suspect ACM at the Site along with an additional ten (10) quality assurance samples. Many of those samples were found to contain asbestos, while other materials that could not be sampled were assumed to contain asbestos. Several of the materials sampled that do not contain asbestos are adhered to ACM and must also be assumed to be contaminated with asbestos in the event those materials are removed or disturbed during demolition. Specific sample locations of the suspect materials can be referenced in sample location figures SL-1 through SL-6.

The following summary of ACMs and assumed ACMs were identified by EHSI sampling.

- **2,500 Square Feet (SF) –** ACM Vinyl asbestos tile (VAT) (multiple sizes/colors) on ACM mastic (black) on concrete throughout
- **3,700 SF –** ACM VAT (tan/gray/green) with ACM mastic (black) beneath various non-ACM carpet flooring and non-ACM mastic on concrete throughout
- **3,725 SF –** ACM Black Mastic beneath various non-ACM carpets/tiles, on concrete throughout
- **8,750 SF –** Flat Transite Panels on walls interior of hangar
- **7,500 SF –** Corrugated Transite Panels on exterior of hangar ***(quantity not given in cost estimate)***
- **11,200 SF –** Joint Compound on Gypsum Wallboard (GWB), with white paint (<1%)
- **1,650 SF –** White Skim Coat on corner joints of door/window frames
- **16,000 Lineal Feet (LF) –** White/brown window frame glazing around edges of windowpanes on exterior
- **3,000 LF –** White window edge frame caulking, between windows/doors and transite on exterior
- **1,500 LF –** ACM Thermal System Insulation (TSI) on piping 8" or less
- **150 SF –** ACM black countertops, resting atop tan metals shelves
- **1 EA - 12" Diameter–** ACM black steam tank gasket

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- **54 LF –** ACM brown window frame caulking, inside windows in two locations
- **20 EA –** ACM white window glazing, interior in one room
- **68 LF –** ACM yellow toilet caulking, present in restrooms
- **4 EA –** ACM electrical panels with Cement Asbestos Board (CAB) backer and interior components
- **20 EA –** ACM electrical junction boxes with Cement Asbestos Board (CAB) backer and interior components (multiple sizes throughout)

Hazardous Metals-Containing Paint

EHSI completed a limited HMCP assessment of the proposed work area and specific materials expected to be impacted through the collection and analysis of eleven (11) paint chip samples. Detectable levels of Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Mercury (Hg), and Lead (Pb) were found in the paint chip samples analyzed as a part of this limited hazardous building material survey.

The US Occupational Safety and Health Administration (OSHA) requires employers to conduct a hazard assessment and take appropriate worker protection precautions whenever building materials are disturbed that have detectable quantities of hazardous metals. EHSI recommends that the provided paint chip sample results be used in conjunction with other applicable (e.g., air monitoring) data to evaluate the potential for elevated occupation lead and RCRA 8 metal exposures during demolition activities.

Polychlorinated Biphenyl Light Ballasts, Mercury, and Other Regulated Materials

As part of our survey for regulated materials, EHSI quantified the number of light ballasts and prepared an inventory of other installed regulated materials that may classify as universal hazardous wastes or other regulated wastes. These materials included PCB-containing paint, mercury-containing items such as fluorescent light tubes, high-intensity discharge lighting, thermostats, and switches. All identified magnetic ballasts are assumed to contain PCBs. A similar assumption applies to mercury potentially present within fluorescent lamps and fluorescent light fixtures. Generally, it is not necessary to sample these materials because their presence within the building represents a future cost for disposal of the facility's installed contents.

The following regulated materials were identified at throughout Site described below:

- Potential mercury-containing fluorescent light tubes: 110 EA
- Potential PCB-containing light ballasts: 45 EA
- Stand-Alone refrigerator freezer or chest freezer with CFC units: 3 EA
- Walk-In freezers/coolers with CFC units: 2 EA
- Mercury-containing Thermostats: 10 EA
- PCB-containing paint: Throughout (see tables for exact paint colors)

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1.0 INTRODUCTION

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The limited hazardous materials survey included asbestos-containing materials (ACM); regulated-metals-containing paint (RCRA-8); polychlorinated biphenyl (PCB)-containing paint, light ballasts, and bulk materials; mercury-containing fluorescent light tubes, freezers/fridges, and thermostats; and other regulated materials. This survey was performed in accordance with federal, state, and local regulatory requirements. Each regulated material included in the survey is summarized below.

1.1 Scope of Work

The scope of services for the limited hazardous materials survey included the following tasks:

- Collect bulk suspect ACM samples as necessary to identify ACM within the Site building. Where bulk sampling or access is not possible, review available historical drawings and make inventory assumptions to the likely quantities of ACM that can be assumed.
- Collect limited LCP chip samples of common color paints on representative building components and have them analyzed for lead.
- Inventory universal wastes such as potential PCB-containing lighting ballasts; mercury-containing fluorescent light tubes; high pressure sodium lamps; mercury-containing fluorescent light tubes, switches, and thermostats.
- Prepare a summary report documenting the findings of the survey and provide tables summarizing hazardous materials, analytical data, comments and recommendations for handling and control.

1.2 Building Description

The following is a listing of the areas (units) that are found at the Site and are further shown on Figure SL, overall site plan.

- North Lean-To
- Center Hangar
- South Lean-To

Both Lean-To's are four (4) stories high, with the third and fourth floors being primarily comprised of a stairwell and a single room at each corner of the building. The South Lean-To has a gross square footage of approximately 11,200 square feet. The North Lean-To is nearly identical in structure except for an additional interior, for a gross total of 17,600 square feet. Between both Lean-To's is the Center Hangar, a mostly open area containing several storage structures and various operational machinery, with a gross square footage of 73,600 square feet.

1.3 Limitations

The conclusions of the report are professional opinions based solely upon visual site observations, and interpretations of sample analyses as described in this report. The opinions presented herein apply to

conditions existing at the time of the investigation, and interpretation of current regulations pertaining to ACMs. Therefore, opinions and recommendations provided herein might not apply to future conditions that may exist at the Site. Current applicable regulations should always be verified prior to any work involving asbestos or other regulated materials. This survey is not intended to be used as an abatement design document. All existing conditions, quantities, and locations should be verified prior to abatement. ACM may be located within areas that were not accessible during this survey. The survey did not include an investigation of potentially buried piping within or in the vicinity of the structures.

The purpose of the limited hazardous material survey is to reasonably test for evidence of asbestos and other hazardous materials in suspect or randomly selected materials at a facility. It should be noted that no survey can be comprehensive or exhaustive enough to eliminate the possibility that ACM present at the Site may not be detected during the survey. Therefore, the completion of this or any survey for ACM or other hazardous materials should not be considered a warranty or guarantee that these materials do not exist, even if they are not detected through a survey.

The survey did not include sampling of the following materials or locations at the Site due to limited access:

- Materials associated with energized electrical equipment (e.g., wiring and panel boards) and transformers
- Buried piping
- Gaskets or packing materials in closed equipment
- Built-up roofing system

Due to the age of the buildings on the Site, it is possible that materials associated with the above-noted structures/systems may be asbestos-containing. If suspect materials are determined to be present within the above-noted systems, the materials should be considered as presumed ACMs until proven otherwise by sampling and laboratory analysis.

2.0 METHODOLOGY

Information concerning the Site was obtained from site inspections conducted by EHSI employees including Mr. Sunny Joshi and Mr. Matt Macfarlane. Copies of their AHERA building inspector certifications are included in Appendix A. This section describes the sampling methodology and applicable asbestos regulations.

2.1 Asbestos Survey Methodology

A visual inspection of accessible areas was conducted to identify suspect ACM and assumed ACM. The asbestos survey was performed by AHERA-certified building inspectors in accordance with a sampling protocol appropriate for the demolition of the Site building. The sampling protocol was developed in accordance with the following:

- U. S. Environmental Protection Agency (EPA) Asbestos Regulation within the Toxic Substances Control Act (40 Code of Federal Regulation [CFR] 763)
- Puget Sound Clean Air Agency (PSCAA) Asbestos Control Standards (Regulation III, Article 4), and
- Washington State Department of Labor and Industries Asbestos, Tremolite, Anthophyllite, and Actinolite Regulation (WAC 296-62-077).

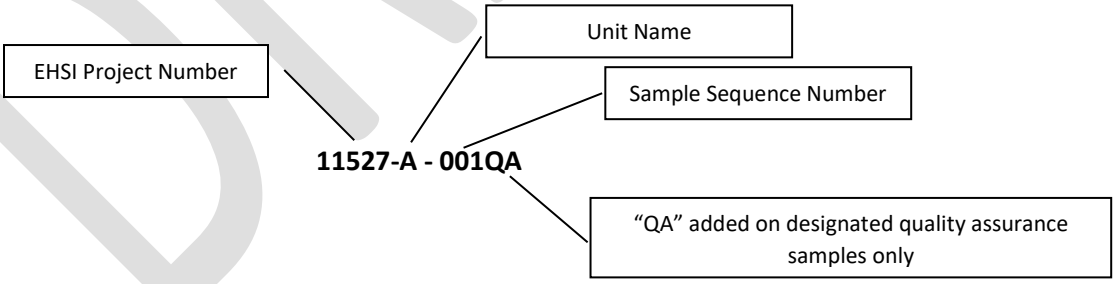
The sampling plan included, at a minimum, the collection and analysis of samples as follows:

- Thermal system insulation (TSI): EHSI collected a minimum of three samples in a distributive manner from each homogeneous sampling area not presumed to contain asbestos. At least one bulk sample of patched TSI was collected from each homogenous area, if the patch was less than 6 square feet in area.
- Surfacing material: EHSI collected a minimum of three samples in a distributive manner from each homogenous area that was 1,000 square feet or less in area. A minimum of five samples were collected from each homogenous area that was more than 1,000 square feet but less than or equal to 5,000 square feet in area. A minimum of seven samples were collected from each homogenous area that was more than 5,000 square feet in area.
- Miscellaneous material: EHSI collected bulk samples of suspect ACM in a distributive manner as deemed sufficient by the AHERA-certified building inspector. At least one sample was collected of each suspect miscellaneous material not presumed to contain asbestos.
- Non-suspect materials: According to 40 CFR 763-86(4), where the accredited inspector has deemed the material to be fiberglass, foam glass, rubber, or other recognized non-ACM, sampling is not required.

Samples were collected by carefully removing small portions of the suspect material with a sharp knife or other hand tool suitable for the material being sampled. The sampling instrument was wiped with a clean moist cloth to decontaminate the tool and minimize the potential release of asbestos fibers or cross-contamination of subsequent samples. Once collected, each bulk sample was sealed in a new clean plastic bag to eliminate the possibility of cross-contamination, labeled with the sample name, and shipped to the analytical laboratory under standard chain-of-custody protocols. Bulk ACM sample locations are illustrated in Figures SL-1 through SL-22.

2.1.1 Sample Documentation

A unique sample identification system was employed for bulk samples of suspect ACMs collected during the survey that includes the project number, and sample sequence number.



Data pertinent to each sample (e.g., date, sample name, material description, and material category) was recorded on a field data sheet. The material determination of friability was made by the AHERA-certified building inspector in the field. Details regarding the bulk samples of suspect ACMs and their friability are summarized in Table 1.

2.1.2 Laboratory Analysis

As specified in 40 CFR 763.87, each sample was analyzed using polarized light microscopy (PLM) with dispersion staining in accordance with EPA Method 600/R-93/116. Samples were analyzed for asbestos

content by Seattle Asbestos Test, LLC (SAT) in Seattle, Washington. SAT participates in the National Institute for Standards and Technology National Voluntary Laboratory Accreditation Plan (NVLAP). Only materials containing greater than 1% total asbestos were classified as "asbestos-containing" based on EPA, state, and local regulations.

Split samples were collected from some same locations for the purposes of quality assurance (QA) and sent to a separate laboratory for analysis. QA samples were submitted to NVL Laboratories, Inc. (NVL) in Seattle, Washington. NVL is also a NVLAP-accredited laboratory.

Laboratory analytical reports and chain-of-custody forms are provided in Appendix B. Laboratory certifications are provided in Appendix C.

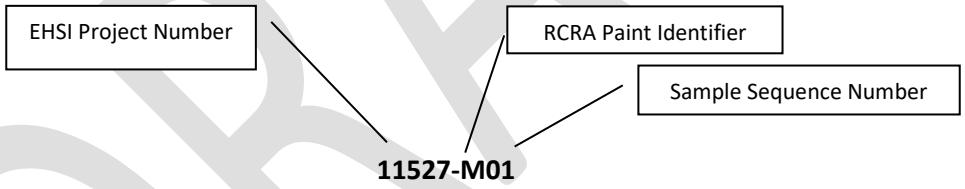
2.2 RCRA Metals Survey

EHSI collected bulk samples to determine the RCRA Metals content of interior and exterior painted coatings. Once collected, each bulk sample was sealed in an unadulterated plastic bag to eliminate the possibility of cross-contamination. "Chain-of-Custody" tracking was followed to maintain sample integrity during handling and data reporting at EHSI and the analytical laboratory. The bulk samples were taken for a representative number of LBP and LCM and were sent to NVL located in Seattle, Washington, an accredited laboratory.

2.2.1 Sample Documentation

A unique sample identification system was employed for paint chip samples that included the project number, chemical abbreviation for lead, and sample sequence number.

Example:



2.2.2 Laboratory Analysis

The paint chip samples were analyzed in accordance with EPA Method 3051/7000B by NVL. NVL participates in the National Environmental Laboratory Accreditation Program and employs American Industrial Hygiene Association quality control procedures.

A summary of bulk lead paint results is provided in Table 10. Laboratory analytical reports and chain-of-custody forms are provided in Appendix B. Laboratory certifications are provided in Appendix C.

2.3 PCB Survey

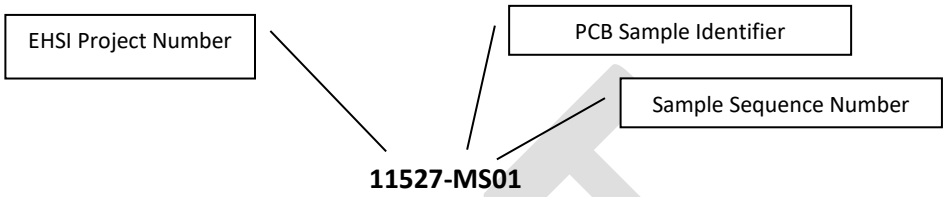
The PCB survey consisted of EHSI collecting a minimal number of representative suspect samples. EHSI collected twelve (11) samples during the limited hazardous building material survey. Mortar samples were obtained by using a chisel to break off a corner of BMU or CMU with mortar. Approximately ½ cubic inch of mortar was removed for each sample. Samples were then placed into 2-ounce, puncture-proof, polyethylene bags, labeled with sample name, and placed in a box for shipping to the analytical laboratory

under standard chain-of-custody protocols. The sampling chisel was cleaned to reduce the possibility of cross-contamination between sample locations.

2.3.1 Sample Documentation

A unique sample identification system was employed for mortar samples that included the project number, chemical abbreviation for lead, and sample sequence number.

Example:



2.3.2 Laboratory Analysis

The mortar samples were analyzed in accordance with EPA Method 3051/6010D by NVL. NVL participates in the National Environmental Laboratory Accreditation Program and employs American Industrial Hygiene Association quality control procedures.

A summary of bulk arsenic results is provided in Table 11. Laboratory analytical reports and chain-of-custody forms are provided in Appendix B. Laboratory certifications are provided in Appendix C.

2.4 Visual Survey of PCBs, Mercury, and Other Regulated Materials

Verifying the presence or absence of PCBs, mercury, or other regulated materials by laboratory analysis, was beyond the scope of this survey. The survey did include visual identification and determination of quantities of potentially PCB-containing fluorescent light ballasts or transformers. All the ballasts were assumed to contain PCBs. A similar assumption applies to mercury potentially present within fluorescent lamps in fluorescent light fixtures, high intensity discharge (HID) lamps, and thermostats.

3.0 RESULTS

This section summarizes the results of the limited hazardous building material survey conducted at the Site.

3.1 Asbestos

The following ACMs or assumed ACMs were identified at the Site, described below. All quantities are approximate.

North Lean-To

- **1,500 Lineal Feet (LF) –** ACM White window edge frame caulking (between window frames/door frames & transite)
- **3000/8000 SF/LF –** ACM White/brown window frame glazing (around edges of windowpanes)
- **1,350 SF –** ACM 9”x9” VAT (black) with ACM mastic (black) on concrete throughout
- **500 SF –** ACM mastic (black) on ACM 12”x12” VCT (black) w/ ACM mastic (black) under non-ACM carpet squares (green) on concrete, Room 101

- **120 SF –** ACM joint compound (white) on gypsum wallboard (GWB), Room 101
- **34 LF –** ACM toilet caulking (yellow), Rooms 200 & 230

South Lean-To

- **1,500 LF –** ACM White window edge frame caulking (between window frames/door frames & transite), Exterior
- **3000/8000 SF/LF –** ACM White/brown window frame glazing (around edges of windowpanes), Exterior
- **12" OD (1 EA) –** ACM steam tank gasket w/ paint (black), Basement Trench
- **60 SF –** ACM countertop (black) w/ non-ACM mastic (brown) on tan metal shelf, Rooms 133-134
- **34 LF –** ACM toilet caulking (yellow), Rooms 132, 149, 266, & 288

A detailed summary of ACMs including the sample number, homogenous material description, material classification, analytical results, and quantity (for ACMs only) is provided in Table 1 through Table 8. Copies of the analytical laboratory reports and chain-of-custody forms for bulk samples of suspect ACM are included in Appendix B. Bulk suspect ACM sample locations are illustrated on Figures **SL-1** through **SL-6.**

3.2 RCRA-8 (Total Metals and TCLP)

EHSI collected eleven (11) paint chip samples from the Site. Analysis of the paint chip samples shows detectable levels of Arsenic, Barium, Cadmium, Chromium, Mercury, and Lead. The paint chip analytical results are included in Tables 2 and 4. A copy of the laboratory analytical report and chain-of-custody form for RCRA/TCLP bulk samples are included in Appendix B.

3.3 PCB's

EHSI collected twelve (11) paint chip samples from the Site. Analysis of the paint samples shows results below the limit of detection to detectable levels of 15.4 mg/Kg. The summary of PCB analytical results is included in Table 3.

A copy of the laboratory analytical report and chain-of-custody form for PCB samples are included in Appendix B.

3.4 PCBs, Mercury, and Other Regulated Materials

A tabulated summary of fluorescent light ballasts, mercury-containing light tubes, HID lamps, fire alarm control panels with Lead-acid batteries, and thermostats are provided in Table 5.

4.0 CONCLUSIONS AND RECOMMENDATIONS

A copy of this report must be provided to any contractor bidding and/or conducting work at the Site. The contractor must also have a copy of this report during demolition activities at the Site. Conclusions and recommendations for each regulated material category are summarized below.

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4.1 Asbestos-Containing Materials

ACMs were identified at AKS NOAA Hangar 32. An asbestos abatement contractor licensed in accordance with WAC 296-62-077 and PSCAA Regulation III, Article 4 must remove all asbestos-containing and asbestos contaminated building materials prior to demolition.

The contractor should also use caution when performing demolition activities within the project areas even after asbestos abatement activities have been conducted. Concealed materials may be encountered during a renovation or demolition project. ACM may be located between walls, in pipe chases, between pipe flanges or other inaccessible areas.

If additional suspect building materials not identified specifically in this report as either ACM or non-ACM are identified during demolition activities, they should be treated as ACM until sampled by an AHERA-certified building inspector and proven to not contain asbestos through laboratory analysis.

4.2 Lead Paint

Based on sampling results, EHSI recommends treating all painted surfaces as having paint with detectable concentrations of lead. The Washington State Department of Commerce defines LCP as coatings with a concentration of lead greater than or equal to 0.5 percent by weight. However, the U.S. Department of Labor and the Washington State Department of Labor and Industries require that the Washington State Construction Standards for Lead (WAC 296-155-176) be followed during "new construction, alteration, repair, or renovation of structures, substrates, or portions thereof that contain lead, or materials containing lead." These standards consider *any detectable* concentration of lead to be a potential hazard during construction activities.

The Washington State Department of Labor and Industries considers any detectable concentration of lead to be a potential hazard during construction activities. Based on the limited testing of painted surfaces completed by EHSI, EHSI recommends assuming all painted surfaces in the project area contain at least detectable levels of lead. Most of the paint coatings were found to be in good condition. EHSI recommends that the contractor use precautions and follow applicable health and safety guidelines when removing materials during asbestos abatement activities, building renovation, or demolition.

For work on building components containing lead or other heavy metals, which may result in personnel exposures, the contractor must assess the hazard. Based on the assessment, and previous similar work and exposure monitoring results, the contractor may have to provide any or all the following for employees per WAC 296-155-176:

- Respiratory protection.
- Protective clothing.
- Clean change areas.
- Clean handwashing facilities.
- Biological monitoring to consist of blood sampling and analysis for lead and zinc protoporphyrin levels; and
- Hazard communication training.

Initial employee exposure monitoring must be conducted for each separate task involving the handling of LCP-coated building materials. If 8-hour time-weighted average exposures exceed the action level of 30 micrograms per cubic meter, the contractor must continue to conduct periodic air monitoring at

specified intervals, and institute medical surveillance and comprehensive training programs. If the OSHA 8-hour time-weighted average permissible exposure limit of 50 micrograms per cubic meter of lead is exceeded, more stringent and additional requirements become effective, such as engineering controls, respiratory protection, regulated work areas and warning signs in lead work areas.

The general contractor performing demolition work should be informed of the presence of lead in the project area. All personnel impacting LCP (or other lead-containing materials) should be provided additional training concerning the health effects of lead, proper work methods, appropriate use of personal protective equipment, and regulations governing lead exposures. Air monitoring to assess lead exposures should be performed for all personnel involved in the demolition process where LCP may be removed.

4.3 PCBs, Mercury, and Other Regulated Materials

4.3.1 Polychlorinated Biphenyl Light Ballasts

The Washington State Dangerous Waste Regulation, WAC 173-303, designates that discarded transformers, capacitors, or bushings containing PCBs at concentrations of 2 parts per million or greater be treated as a PCB-containing material. Light ballasts fall under this regulation. Previous regulations dictated that any material with less than 50 parts per million of PCBs could be labeled as a non-PCB-containing material. Because of this regulatory change, EHSI recommends that all light ballasts be tracked, removed, handled, and disposed of in an appropriate manner. Ballasts with a label stating, “NO PCB” (or something similar) shall be packaged for recycling by an approved recycling facility.

4.3.2 Mercury

Many fluorescent light tubes, HID lamps, thermostats, and switches contain mercury that is harmful to the environment and human health. The EPA and Washington State Department of Ecology have placed these materials in a special category of dangerous waste known as universal waste. Some of the requirements included within the Standards for Universal Waste Management (WAC 173-303-573) include:

- Immediately place lamps showing evidence of leakage, damage, etc. into a container following removal.
- Containerize in closed, structurally sound, compatible containers. Cardboard containers may be used for inside storage only.
- Labeling container as follows: “Waste Lamps,” or “Universal Waste Lamps”.
- Track the length of time since waste lamp generation. Acceptable methods of proof include date on label, inventory system, etc.
- Respond immediately to potential releases. If determined to be a release, contain, and determine if it designates as a dangerous waste.
- Disposal of universal waste as general or construction debris is not permitted.
- The crushing of fluorescent light tubes on-site is not allowed. In addition, measures should be taken to prevent breakage of fluorescent light tubes while the light tubes are in transit to their destination.
- Provide training to employees on the proper handling and emergency procedures for universal waste lamps.

- Track shipments of universal waste lamps with records (invoice, manifest, etc.) kept for a minimum of 3 years.

DRAFT

Figures

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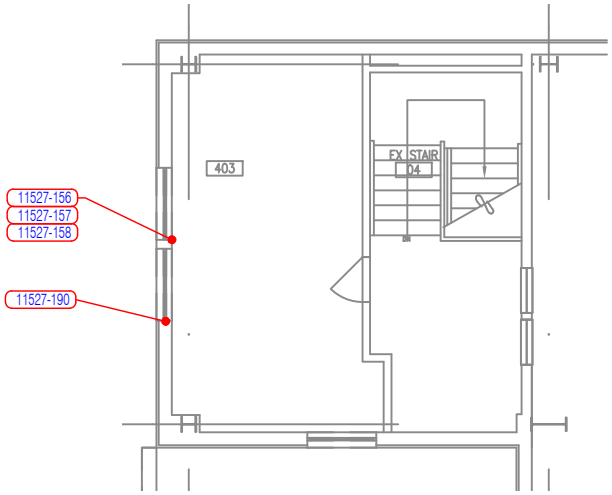
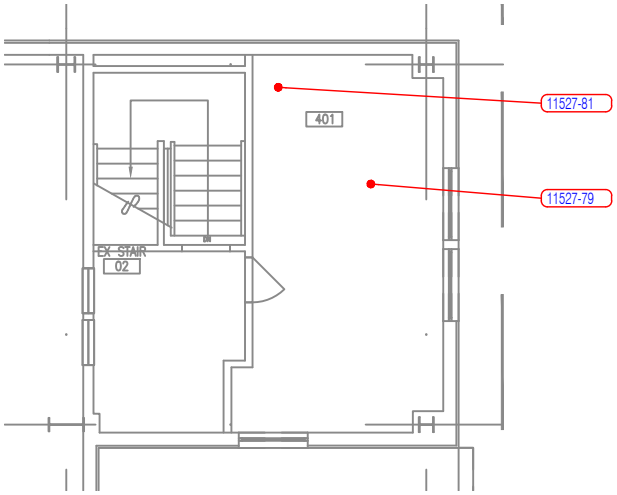
1. DRAWING IS SCHEMATIC AND SAMPLE LOCATIONS ARE APPROXIMATE.
2. REFER TO REPORT FOR MORE INFORMATION ABOUT THE SAMPLED MATERIALS.
3. BACKGROUND DRAWING WAS PREPARED BASED ON SKETCHES PREPARED IN THE FIELD.

NORTH



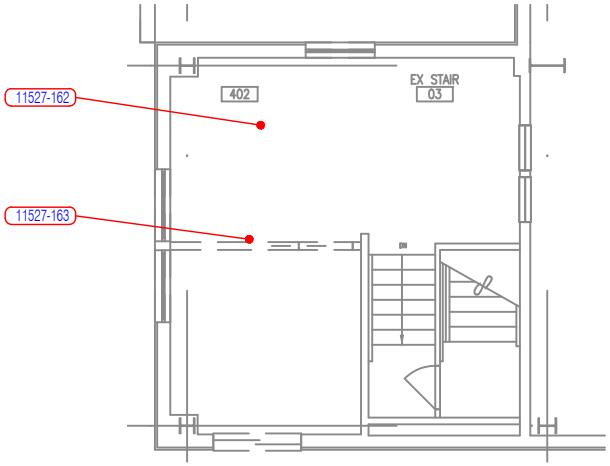
AREA A

NOT TO SCALE



AREA E

NOT TO SCALE



AREA B

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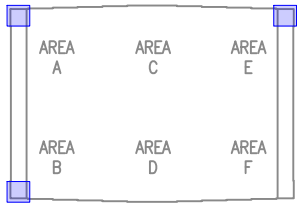

KEY PLAN

NOT TO SCALE

N

ehsi
A Subsidiary of EnviroScience Strategies
1011 SW Klickitat Way, Suite 104
Seattle, Washington 98134
Ph: 206.381.1128
Fax: 206.254.4279

PROJECT INFO:
HAZARDOUS MATERIALS SURVEY
HANGAR 32 SHELL & CORE NOAA WESTERN REGIONAL CENTER
7600 SAND POINT WAY NE
SEATTLE, WA
AKS PS, INC
SEATTLE, WA

SURVEY DATES:
10/25/21-10/29/21
11/01/21-11/05/21
12/06/21

PROJECT MANAGER:
S. JOSHI

DRAWN BY:
F. DIMALANTA

INSPECTORS:
S. JOSHI
M. MACFARLANE

LEGEND:
11527-XX BULK ASBESTOS SAMPLE LOCATIONS
0000 ROOM IDENTIFIER

DRAWING TITLE:
FOURTH FLOOR PLAN

ISSUE DATE:
11/10/21

SCALE:
NTS

EHSI PROJECT #
11527-01

SHEET
SL-6

Tables

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Table 1
Summary of Asbestos Bulk Sampling and Analytical Results
WRC Building 32
National Oceanic and Atmospheric Administration (NOAA)
7600 Sand Point Way NE
Seattle, WA 98115
EHSI Project Number: 11527

Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
NORTH LEAN-TO								
11527-01 **11527-02**	**1**	**Room 101**	Green carpet square on 12"x12" tan VCT w/ **black mastic on 12"x12" black VCT w/black mastic** on concrete	**2-3% Chrysotile - black mastic** **5-6% Chrysotile - black VAT** **3% Chrysotile - black mastic**	**500**	**SF**	**Misc.**	**NF**
11527-07 **11527-08**	**1**	**Room 101**	**White JC on** GWB with paint	**3% Chrysotile - JC** **ND - GWB w/ paint** **Note: GWB as a system is <1% by composite anlsysis.**	**120**	**SF**	**Misc.**	**F**
11527-05 11527-06	**1**	Room 101	White joint compound on plaster with brown backing	ND (all layers)	--	--	Misc.	F
11527-21 11527-22	**1**	Room 101/112	Green board on plaster	ND (all layers)	--	--	Misc.	F
11527-38 11527-39	1	Room 104	Tan/beige/black carpet w/ clear mastic on concrete	ND	--	--	Misc.	NF
11527-24 11527-25	1 + 2	Room 104/210	2'x4' SACT w/ pinhole (PH) and wormtrack (WT) pattern w/ paint	ND	--	--	Misc.	F
11527-11 **11527-12**	**1**	**Room 108**	White paint on **9"x9" black VCT w/ black mastic** on concrete	**6-7% Chrysotile - black VAT** **2-3% Chrysotile - black mastic**	**150**	**SF**	**Misc.**	**NF**

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Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
11527-09 **11527-10** **11527-10QA**	**1**	**Room 108**	**9"x9" Tan VCT w/ black mastic on 9"x9" black VCT** w/ black mastic on concrete	**11-12% Chrysotile - tan VAT** **5-7 % Chrysotile - black VAT**	**1,200**	**SF**	**Misc.**	**NF**
11527-58 11527-58QA 11527-63	1	Room 110	White fire stop (around copper pipe on refrigerators F2+F3)	ND	--	--	Misc.	NF
11527-59 11527-60	1	Room 110	Silver seam caulking (around/in seams of refrigerators F2+F3)	ND	--	--	Misc.	NF
11527-61 11527-62	1	Room 110	Clear/tan seam caulking (at base of refrigerator F2)	ND	--	--	Misc.	NF
11527-64	1	Room 110	Clear silicone patch (on refrigerator F3)	ND	--	--	Misc.	NF
11527-13 11527-14	**1**	Room 111	9"x9" Brown VCT w/ clear mastic on 9"x9" Gray VCT w/ clear mastic on concrete	ND (all layers)	--	--	Misc.	NF
11527-15 11527-16	**1**	Room 111	4" Black cove base w/ black mastic on plaster wall	ND (all layers)	--	--	Misc.	NF
11527-23	1	Room 112	Brown tac board w/ yellow mastic on plaster	ND (all layers)	--	--	Misc.	NF
11527-40 11527-41	1	Room 112	White joint compound on plaster wall on GWB	ND (all layers)	--	--	Misc.	F
11527-44 11527-45	1	Room 113	Beige/tan ceramic wall tile w/ grout on plaster walls	ND (all layers)	--	--	Misc.	NF
11527-17 11527-18	**1**	Room 113	9"x9" Red ceramic tile w/ gray grout on concrete	ND (all layers)	--	--	Misc.	NF
11527-172 **11527-173**	**1**	**Room 200, 230**	**Yellow toilet caulking** (around base of toilets)	**4% Chrysotile**	**34**	**LF**	**Misc.**	**NF**
11527-30 11527-33	2	Hallway 202 /220	Yellow carpet on black rubber pad w/ yellow mastic on wood	ND (all layers)	--	--	Misc.	NF

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Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
11527-31 **11527-32** **11527-32QA**	**2**	**Hallway 210 / 207**	4" Brown cove base w/ tan & brown mastic (on **JC** on wall)	**2% Chrysotile**[1]			Misc.	NF
11527-34 **11527-35**	**2**	**Room 224**	4" Gray cove base w/ yellow mastic (on **JC** on wall)	**2% Chrysotile**[1]			Misc.	NF
11527-70 11527-71	2	Room 212	Duct tape w/ white paint (around 12" OD return vent above SACT)	ND	--	--	Misc.	NF
11527-36 11527-37	2	Hallway 212 / 220	Black vapor barrier w/ fiberglass insulation (above SACT)	ND (all layers)	--	--	Misc.	NF
11527-48 11527-49	2	Room 213/208	Black window gasket on metal window frame	ND	--	--	Misc.	NF
11527-28 11527-29	2	Room 219/208	Tan & beige carpet w/ black rubber back w/ yellow mastic on wood	ND (all layers)	--	--	Misc.	NF
11527-26 **11527-27**	**2**	**Room 223**	Brown/tan rolldown carpet w/ brown mastic on **black tile** w/ black mastic on wood	**7-8% Chrysotile - black VAT**	**710**	**SF**	**Misc.**	**NF**
11527-46 11527-47	2	Room 224	1'8"x3'7" window gasket (on inside of wood frame)	ND	--	--	Misc.	NF
11527-50 11527-51	2	Room 224	Black foam insulation barrier (on MFW 6'7"x3'18")	ND	--	--	Misc.	NF
11527-52 11527-53	2	Room 224	6'7"x3'10" white window glazing putty (newer window) (between frame and outer wall frame)	ND	--	--	Misc.	NF
11527-54 **11527-55** **11527-56** **11527-56QA** **11527-194** **11527-195**	**2**	**Room C201 / 223 / 224 / 225 / 227 / 228 / 300 / 400 / Exit Stair 01**	**White skim coat** on corner joints of wood windows/door frames	**3-4% Chrysotile - skim coat**	**3,500**	**SF**	**Surfacing**	**F**
11527-68 11527-69	2	Room 228	White fibrous material on tac board (on 4'x9')	ND (all layers)	--	--	Misc.	NF
11527-57 11527-74	2	Room 228 / 301	Plaster w/ paint	ND	--	--	Misc.	NF

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Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
11527-65 11527-66 11527-67	2 + 3	Exit Stair 01/02	1/3" white skim coat w/ tan paint on concrete stairwell ceilings	ND (all layers)	600	SF	Surfacing	F
11527-72 11527-73	2 + 3	Exit Stair 01	Poured concrete w/ red paint (poured on floor of stairwell joints)	ND	--	--	Misc.	NF
11527-75 11527-80	3	Room 301	Yellow/brown carpet w/ yellow mastic on concrete	ND (all layers)	--	--	Misc.	NF
11527-76	3	Room 301	White paint (on decomissioned pipe)	ND	--	--	Misc.	NF
11527-77	3	Room 301	Yellow window glazing putty (on inner panels of window)	ND	--	--	Misc.	NF
11527-78	3	Room 301	White/brown window glazing patch (on exterior of window)	ND	--	--	Misc.	NF
11527-79 11527-81	4	Room 401	Brown carpet w/ yellow mastic on concrete	ND (all layers)	--	--	Misc.	NF
11527-82 11527-88	1	Exterior	Brown window frame foam insulation w/ paint (on window)	ND	--	--	Misc.	NF
11527-87	**Ext**	**Exterior**	**White window edge frame caulking (between window frames/door frames & transite)**	**4% Chrysotile**	**1,500**	**LF**	**Misc.**	**NF**
11527-86	**Ext**	**Exterior**	**White/brown window frame glazing (around edges of window panes) 7'x12' wooden window frames**	**3% Chrysotile**	**3,000 8,000 40**	**SF LF EA**	**Misc.**	**NF**
11527-83	1	Exterior	Clear silicone patch (on exterior window)	ND	--	--	Misc.	NF
11527-84	1	Exterior	White window edge frame caulking (between door & transite)	ND	--	--	Misc.	NF
11527-85	1	Exterior	Brown door frame caulking (between door & transite)	ND	--	--	Misc.	NF
11527-192	1	Ext. Door N. Lean	Brown door caulking	ND	--	--	Misc.	NF
11527-19 11527-20	1	Outside	Black slip pad w/ black mastic on concrete	ND (all layers)	--	--	Misc.	NF
11527-90	1	Exterior NE	Silver/gray door frame putty (ground NE door entrance to Bldg 8'x4')	ND	--	--	Misc.	NF
CENTER BLDG. AREA BETWEEN GRID LINES B & D								
11527-42 11527-43	1	Interior columns	Silver paint (on columns & beams)	ND	--	--	Misc.	F
11527-128 11527-129	1	Center Bldg.	Black asphaltic seam sealant (in seams on center bldg. w/ copper wire)	ND	--	--	Misc.	NF

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Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
11527-183 11527-188 11527-189	1	Center Bldg. S Wall	White mesh paper w/ yellow fiberglass insulation on silver tape (on copper pipe)	ND (all layers)	--	--	TSI	F
11527-184	1	Center Bldg. S Wall	Yellow padding w/ yellow mastic (on galvanized pipe)	ND (all layers)	--	--	Misc.	NF
11527-185	1	Center Bldg. S Wall	Clear silicone pipe dope (on 8" OD black pipe)	ND	--	--	Misc.	NF
11527-186 11527-187	1	Center Bldg. S Wall	Black asphaltic mastic (on inside of pipe galvanized cover)	ND	--	--	Misc.	NF
SOUTH LEAN-TO								
11527-132	1	Room 133	Joint compound on GWB w/ paint (corner)	ND (all layers)	--	--	Misc.	F
11527-133	1	Room 133	Skim coat on plaster w/ orange paint)	ND (all layers)	--	--	Surfacing	F
11527-135	**1**	**Room 133 / 134**	**Black countertop** w/ brown mastic (on tan metal shelf)	**14% Chrysotile**	**150**	**SF**	**Misc.**	**NF**
11527-126 11527-127 11527-149	1	Room 133 / 145 / Exit Stair 04	White window frame caulking (WFW between frame & wall 6'10"x4'11")	ND	--	--	Misc.	NF
11527-136 11527-142	1	Room 134	White plumbers' putty (on 2" OD copper pipe)	ND	--	--	Misc.	NF
11527-137	1	Room 134	Black sink gasket (on drain in sink 5" OD)	ND	--	--	Misc.	NF
11527-138 11527-139 11527-140	1	Room 134	White mesh paper w/ yellow mastic on yellow fiberglass insulation on silver mesh paper (on copper pipe)	ND (all layers)	--	--	TSI	F
11527-141	1	Room 134	Gray sink drain gasket (5" OD)	ND	--	--	Misc.	NF
11527-114	1	Room 135	Brown glue dots (on plaster ceiling above SACT)	ND	--	--	Misc.	NF
11527-115	1	Room 135	4" Gray cove base w/ clear mastic on GWB	ND (all layers)	--	--	Misc.	NF
11527-122 11527-123	1	Room 133/134	4" Cove base w/ tan mastic on GWB on plaster	ND (all layers)	--	--	Misc.	NF

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Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
11527-91 11527-92	1	Room 135/138	12"x12" Beige tile w/ black mastic on concrete	ND (all layers)	--	--	Misc.	NF
11527-101	1	Room 135	Joint compound w/ GWB	ND (all layers)	--	--	Misc.	F
11527-105 11527-106	1	Room 135/137	White interior door frame caulking (around frame & wall)	ND	--	--	Misc.	NF
11527-99 11527-100	1	Room 137	White backsplash w/ yellow mastic on GWB	ND (all layers)	--	--	Misc.	NF
11527-103 11527-104	1	Room 137	White formica countertop w/ clear mastic on wood	ND (all layers)	--	--	Misc.	NF
11527-109 11527-109QA 11527-110	1	Room 137/138	Gray sink undercoating (beneath sink)	ND	--	--	Misc.	NF
11527-111	1	Room 137	Black stainless steel large sink drain gasket (12'x4'3") mid room drain	ND	--	--	Misc.	NF
11527-107	1	Room 137	Brown sink drain gasket (under sink)	ND	--	--	Misc.	NF
11527-108 11527-113 11527-113QA	1	Room 137	Tan sink drain putty (around drain) 5" OD	ND	--	--	Misc.	NF
11527-112	1	Room 138	Black sink drain gasket	ND	--	--	Misc.	NF
11527-118	1	Room 139	Silver duct tape w/ brown paper backing	ND (all layers)	--	--	Misc.	F
11527-116	1	Room 139 / 140	2'x4' suspended acoustic ceiling tile w/ paint w/ wormtrack pattern (20	ND	--	--	Misc.	F
11527-117	1	Room 139 / 140	Formica countertop w/ pink mastic	ND (all layers)	--	--	Misc.	NF
11527-120 11527-121	1	Room 145A	2'x4' White SACT w/ flat pattern w/ silver backing	ND	--	--	Misc.	F
11527-130 11527-131	1	Room 145A	Silver duct tape on FG insulation (return vent)	ND (all layers)	--	--	Misc.	NF
11527-143 11527-144	1	Room 146	White formica countertop w/ clear yellow mastic	ND (all layers)	--	--	Misc.	NF

Table 1
Summary of Asbestos Bulk Sampling and Analytical Results
WRC Building 32
National Oceanic and Atmospheric Administration (NOAA)
7600 Sand Point Way NE
Seattle, WA 98115
EHSI Project Number: 11527

Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
11527-145 11527-146	1	Room 146	Black sink drain gasket (right side 12# OD, left side 6" OD)	ND	--	--	Misc.	NF
11527-124 11527-125 11527-134 11527-193 11527-196 11527-197 11527-147 11527-147QA 11527-148	1	Room 145 / 146	White/yellow skim coat GWB (on corner joints of walls/door frames)	ND	1,650	SF	Surfacing	F
11527-152	1	Room 149	Yellow sink drain putty (4" OD)	ND	--	--	Misc.	NF
11527-153 11527-154	1	Room 149	White plumbers' putty (3" OD around copper pipe)	ND	--	--	Misc.	NF
11527-155	1	Room 149	Black sink drain gasket (6" OD)	ND	--	--	Misc.	NF
11527-168	1	Room 149	3" EA hexagonal ceramic tile w/ gray grout on black grout on concrete	ND (all layers)	--	--	Misc.	NF
11527-172 11527-173	**1**	**Room 132, 149, 266, 288**	**Yellow toilet caulking** (around base of toilets)	**4% Chrysotile**	**34**	**LF**	**Misc.**	**NF**
11527-169 11527-170	1	Room 149	4'8"x2'8" Mirror w/ black mastic on ceramic tile	ND (all layers)	--	--	Misc.	NF
11527-171	1	Room 149	Gray shower grout (outside on shower ceramic wall)	ND	--	--	Misc.	NF
11527-93	1	Exit Stair 03	Blue/green carpet squares w/ black mastic on concrete	ND (all layers)	--	--	Misc.	NF
11527-102	2	Exit Stair 04	Black/purple rolled down carpet on tan tile w/ black mastic on concrete	ND (all layers)	--	--	Misc.	NF
11527-176 11527-177	2	Room 266	Black sink drain gasket (6" OD)	ND	--	--	Misc.	NF
11527-166 11527-167	**2**	**Room 270**	**White window glazing** (between glass window pane and metal window frame)	**3% Chrysotile**	**100**	**LF**	**Misc.**	**NF**

Table 1
Summary of Asbestos Bulk Sampling and Analytical Results
WRC Building 32
National Oceanic and Atmospheric Administration (NOAA)
7600 Sand Point Way NE
Seattle, WA 98115
EHSI Project Number: 11527

Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
11527-94 **11527-95**	**2**	**Room 273 / 274**	Brown rolled down carpet on tan tile w/ **black mastic** on concrete	**5% Chrysotile - black mastic**	**1,200**	**SF**	**Misc.**	**NF**
11527-164 11527-165	2	Hallway 273 / 270	2"x1" yellow foam w/ yellow mastic on plaster	ND (all layers)	--	--	Misc.	NF
11527-178 11527-179	2	Room 274/282	Joint compound on GWB w/ paint (corner)	ND (all layers)	--	--	Misc.	F
11527-96	**2**	**Room 276**	Yellow/brown rolled down carpet on 12'x12' light beige tile w/ **black mastic** on concrete	**4% Chrysotile - black mastic**	**150**	**SF**	**Misc.**	**NF**
11527-97 **11527-98**	**2**	**Room 277 / 279**	Red rolled down carpet on beige 12'x12' VCT w/ **black mastic** on concrete	**3% Chrysotile - black mastic**	**500**	**SF**	**Misc.**	**NF**
11527-180	2	Room 277	White wall patch (patch on flaking paint)	ND	--	--	Misc.	F
11527-175 11527-181 11527-182	3	Exit Stair 04	Yellow mud (on 5" OD black steam pipe on opening in stairwell)	ND	--	--	Surfacing	F
11527-159	3	Room 302	Brown mastic (on east wall pipe run)	ND	--	--	Misc.	NF
11527-160 **11527-161** **11527-174**	**4**	**Room 402**	Maroon carpet squares w/ black mastic on tan tile w/ **black mastic** on concrete	**5% Chrysotile - black mastic**	**300**	**SF**	**Misc.**	**NF**
11527-156 **11527-156QA** **11527-190** **11527-191**	**3 + 4**	**Room 403 / 303**	**Brown window frame caulking** (with paint on MFW between window frame & wood frame interior)	**5% Chrysotile**	**54**	**LF**	**Misc.**	**NF**
11527-157	4	Room 403	Black window seam sealant (inner window)	ND	--	--	Misc.	NF
11527-158	4	Room 403	White window seam caulking (inner window)	ND	--	--	Misc.	NF
11527-162 11527-163	4	Exit Stair 04	Joint compound on GWB w/ paint (corner)	ND (all layers)	--	--	Misc.	F
11527-150 **11527-150QA**	**1**	**Exit Stair 04**	**Black steam tank gasket** w/ paint (12" OD) (basement trench)	**45% Chrysotile**	**1**	**EA**	**Misc.**	**F**
11527-151	1	Exit Stair 04	Black steam tank gasket w/ paint (10" OD) (basement trench)	ND	--	--	Misc.	F
11527-82 11527-88	1	Exterior	Brown window frame foam insulation w/ paint (on window)	ND	--	--	Misc.	NF

Table 1
Summary of Asbestos Bulk Sampling and Analytical Results
WRC Building 32
National Oceanic and Atmospheric Administration (NOAA)
7600 Sand Point Way NE
Seattle, WA 98115
EHSI Project Number: 11527

Sample Number	Floor	HSA Location	Sample Description	Result	Quantity	Units	Material Type	Friable/ Non-Friable
11527-87	**Ext**	**Exterior**	**White window edge frame caulking (between window frames/door frames & transite)**	**4% Chrysotile**	**1,500**	**LF**	**Misc.**	**NF**
11527-86	**Ext**	**Exterior**	**White/brown window frame glazing (around edges of window panes) 7'x12' wooden window frames**	**3% Chrysotile**	**3000 / 8000 / 40**	**SF / LF / EA**	**Misc.**	**NF**
11527-89	Ext	Exterior	White/brown cementitious material (between door frame and transite)	ND	--	--	Misc.	NF
11527-84	1	Exterior	White window edge frame caulking (between door & transite)	ND	--	--	Misc.	NF

NOTES:

[1] - ACM result is joint compound and not considered part of the sample for cove base and mastic.

Bold text indicates sample contains detectable levels of asbestos. Layer that is bolded contains asbestos.

ACM = asbestos-containing material
BLDG = building
EA = each
F = friable
GWB = gypsum wall board
HSA = homogenous sample area
JC = joint compound
LF = lineal feet
MFW = metal frame window
ND = non-detect
NF = non-friable
OD = outside diameter
QA = quality assurance
SACT = suspended acoustic ceiling tile
SF = square feet
TSI = thermal system insulation
VCT = vinyl composite tile

Table 3
Summary of PCB Bulk Paint Sampling and Analytical Results
WRC Building 32
National Oceanic and Atmospheric Administration (NOAA)
7600 Sand Point Way NE
Seattle, WA 98115
EHSI Project Number: 11527

Sample Number	Floor	Location	Component / Substrate	Color	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCB's
Building 32												
11527-M01	**Throughout**	**North Lean**	**Walls/Ceilings/Paint Chips / Plaster/GWB**	**White**	<0.99	<0.99	<0.99	<0.99	<0.99	**3.5**	**1.6**	**5.1**
11527-M02	**227**	**North Lean**	**Wall / Plaster**	**Tan**	<1.7	<1.7	<1.7	<1.7	<1.7	**3.2**	<1.7	**3.2**
11527-M03	**228**	**North Lean**	**Wall / Plaster**	**Brown/Orange**	1.1	<0.97	<0.97	<0.97	<0.97	**2.3**	<0.97	**3.4**
11527-M04	Throughout	Bldg. 32	Beams/Columns/Struts / Metal	Silver	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
11527-M05	Blue additional structure	North Lean	Ext. Walls / Wood	Blue	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98
11527-M06	Interior	North Lean	Walls/Ceiling / Plaster/GWB	White	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98
11527-M07	Interior Columns	Center Bldg.	Metal Columns / Metal	White	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8
11527-M08	Interior Columns	Center Bldg.	Metal Columns / Metal	Red	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7
11527-M09	**Ext. North Lean**	**Ext. Kitchen Ducting**	**Duct / Metal**	**White**	<1.1	<1.1	<1.1	<1.1	<1.1	9.2	6.2	**15.4**
11527-M10	Ext. North + South Lean	Ext. Windows N+S Sides	Throughout / Wood+Metal	Purple	<3.4	<3.4	<3.4	<3.4	<3.4	<3.4	<3.4	<0.94
11527-M11	Center Bldg. South Side	Center	Ladder / Wood	Black + Yellow	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

Bold text indicates sample contains detectable levels of PCBs

< = less than

GWB = gypsum wall board

Table 2
Summary of RCRA-8 Metals Bulk Paint Sampling and Analytical Results
WRC Building 32 (NOAA)
7600 Sand Point Way NE
Seattle, WA 98115
EHSI Project Number: 11527

Sample Number	Floor	Location	Component / Substrate	Color	Silver (Ag)	Arsenic (As)	Barium (Ba)	Cadmium (Cd)	Chromium (Cr)	Mercury (Hg)	Lead (Pb)	Selemium (Se)
Building 32												
11527-M01	**Throughout**	**North Lean**	**Walls/Ceilings/Paint Chips / Plaster/GWB**	**White**	<20.0	<20.0	**990.0**	**230.0**	**5900.0**	<1.0	**29000.0**	<20.0
11527-M02	**227**	**North Lean**	**Wall / Plaster**	**Tan**	<19.0	<19.0	**1000.0**	**25.0**	**12000.0**	**1.3**	**57000.00**	<19.0
11527-M03	**228**	**North Lean**	**Wall / Plaster**	**Brown/Orange**	<17.0	<17.0	**870.0**	**310.0**	**260.0**	**2.5**	**3300.0**	<17.0
11527-M04	**Throughout**	**Bldg. 32**	**Beams/Columns/Struts / Metal**	**Silver**	<21.0	<21.0	**950.0**	**170.0**	**240.0**	<1.0	**23000.0**	<21.0
11527-M05	**Blue additional structure**	**North Lean**	**Ext. Walls / Wood**	**Blue**	<19.0	<19.0	**31.0**	<19.0	<19.0	**2.9**	<19.0	<19.0
11527-M06	**Interior**	**North Lean**	**Walls/Ceiling / Plaster/GWB**	**White**	<19.0	<19.0	**38.00**	<19.0	<19.0	**8.3**	<19.0	<19.0
11527-M07	**Interior Columns**	**Center Bldg.**	**Metal Columns / Metal**	**White**	<19.0	<19.0	**2400.0**	<19.0	**41.0**	**12.0**	**6000.0**	<19.0
11527-M08	**Interior Columns**	**Center Bldg.**	**Metal Columns / Metal**	**Red**	<20.0	<20.0	**1400.0**	**110.0**	**52.0**	**1.5**	**300000.0**	<20.0
11527-M09	**Ext. North Lean**	**Ext. Kitchen Ducting**	**Duct / Metal**	**White**	<20.0	<20.0	**460.0**	<20.0	**2700.0**	<1.0	**1800.0**	<20.0
11527-M10	**Ext. N & S Lean**	**Ext. Windows N+S Sides**	**Throughout / Wood+Metal**	**Purple**	<20.0	<20.0	**42.00**	<20.0	<20.0	**52.00**	**180.0**	<20.0
11527-M11	**Center Bldg. South Side**	**Center**	**Ladder / Wood**	**Black/Yellow**	<20.0	**29**	**190.0**	**110**	**4900.0**	<1.0	**33000.0**	<20.0

NOTES:

Bold text indicates sample contains detectable levels of metals.

< = less than

GWB = gypsum wall board

Bldg. = building

Table 4
Summary of TCLP Sampling and Analytical Results - RCRA-8 Metals
WRC Building 32
National Oceanic and Atmospheric Administration (NOAA)
7600 Sand Point Way NE
Seattle, WA 98115
EHSI Project Number: 11527

Sample Number	Floor	Location	Component / Substrate	Color	Silver (Ag)	Arsenic (As)	Barium (Ba)	Cadmium (Cd)	Chromium (Cr)	Mercury (Hg)	Lead (Pb)	Selemium (Se)
Building 32												
11527-TCLP01	Throughout	North Lean	33.3% Plaster w/ Paint 33.3% GWB w/ Paint 33.3% Wood w/ Paint	Orange/Blue/White	<20.0	<20.0	0.21	<0.20	<0.20	<0.011	<0.20	<20.0
11527-TCLP02	Throughout	North Lean Blue Structure	50% GWB w/ Paint 50% Wood w/ Paint	Blue/White	<0.20	<0.20	0.31	<0.20	<0.20	<0.011	<0.20	<0.20
11527-TCLP03	Floors 1-2	South Lean	33.3% Plaster w/ Paint 33.3% GWB w/ Paint 33.3% Wood w/ Paint	Orange/White	<0.20	<0.20	0.27	<0.20	<0.20	<0.011	<0.20	<0.20
11527-TCLP04	Floors 3-4	South Lean	33.3% Plaster w/ Paint 33.3% GWB w/ Paint 33.3% Wood w/ Paint	Brown/White	<0.20	<0.20	0.33	<0.20	<0.20	<0.011	<0.20	<0.20

NOTES:

< = less than

GWB = Gypsum wallboard

TCLP = Toxics Characteristics Leaching Procedure

Table 5
Summary of PCB Light Ballasts, Mercury, and other Regulated Materials
WRC Building 32
National Oceanic and Atmospheric Administration (NOAA)
7600 Sand Point Way NE
Seattle, WA 98115
EHSI Project Number: 11527

Material Description	Location	Quantity	Fixtures	Light Tubes	Magnetic Ballasts
Potential mercury-containing fluorescent light tubes	Throughout, all three survey areas	--	--	1200	
Potential PCB-containing light ballasts	Throughout, all three survey areas	--	--	420	194
High Intensity Discharge Light fixtures with ballasts (no bulbs)	Center Bldg. between gridlines	--	55	--	55
Stand alone refrigerator freezer, includes chest freezer or vertical freezers with CFCs	Throughout, all three survey areas	4	--	--	--
Walk in freezers/coolers with CFC units	Throughout, all three survey areas	3	--	--	--
Transformers	Center Bldg. between gridlines B & D and Exterior North Lean	4	--	--	--
Original water heater	Throughout, all three survey areas	1	--	--	--
Wall mounted Thermostats (mercury)	Throughout, all three survey areas	12	--	--	--
TOTAL		**24**	**55**	**1620**	**249**

NOTES:

Magnetic ballasts are assumed to contain polychlorinated biphenyls (PCBs)

CFC = chlorofluorocarbon

HID = High intensity Discharge

PCB = Polychlorinated biphenyl

Appendix A

Inspector Certifications

DRAFT

National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

NVL Laboratories, Inc.
4708 Aurora Avenue N.
Seattle, WA 98103
Mr. Nghiep Vi Ly
Phone: 206-547-0100 Fax: 206-634-1936
Email: nick.l@nvllabs.com
http://www.nvllabs.com

ASBESTOS FIBER ANALYSIS — NVLAP LAB CODE 102063-0

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200768-0

Seattle Asbestos Test, LLC

Lynnwood, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2021-10-01 through 2022-09-30

Effective Dates

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Voluntary Laboratory Accreditation Program

Appendix D

Selected Photographs

of

Asbestos Containing Materials

DRAFT

Photo #1: Samples 11527-01/02: Green carpet square on 12"x12" tan VCT w/ **black mastic on 12"x12" black VCT w/ black mastic (**on concrete) (North Lean-To,

Photo #2: Samples 11527-07/08: **Joint compound** on gypsum wallboard (GWB). When composited as a wall system, this sample is **<1% Chrysotile** (North Lean-To, Room 101)

Photo #3: Samples 11527-09-10/10QA: **9"x9" Tan VCT w/ black mastic on 9"x9" black VCT w/ black mastic** (on concrete) (North Lean-To, Room 108)

Photo #4: Samples 11527-11/12: White paint on **9"x9" black VCT w/ black mastic (**on concrete) (North Lean-To, Room 108)

Photo #5: Samples 11527-26/27: Brown/tan rolldown carpet on **black tile w/ black mastic** (on wood) (North Lean-To, Room 223)

Photo #6: Samples 11527-31/32/32QA: 4" Brown cove base w/ tan & brown mastic (on **wall**) (North Lean-To, Hallways 210/207)

Photo #7: Samples 11527-34/35: 4" Gray cove base w/ yellow mastic (on **ACM joint compound on wall**) **Note:** joint compound should be treated as ACM if removed separately from wall system. When composited as a wall system, this sample is **<1% Chrysotile** (North Lean-To, Room 224)

Photo #8: Samples 11527-54/55/56/56QA: **White skim coat** on corner joints of walls/door frames (North Lean-To, Rooms C201, 223, 224, 225, 227, 228, 300, 400, Exit Stair 1)

Photo #9: Sample 11527-86: **White/brown window frame glazing** (around windowpanes in 7'x12' wooden window frame) (North and South Lean-To, Exterior)

Photo #10: Sample 11527-87: **White window edge frame caulking (between door & transite)** (North and South Lean-To, Exterior)

Photo #11: Samples 11527-94/95: Brown rolled down carpet on tan tile w/ **black mastic** (on concrete) (South Lean-To, Rooms 273 / 274)

Photo #12: Samples 11527-96: Yellow/brown rolled down carpet on 12'x12' light beige tile w/ **black mastic** (on concrete) (South Lean-To, Room 276)

Photo #13: Samples 11527-97/98: Red rolled down carpet on beige 12'x12' VCT w/ **black mastic** (on concrete) (South Lean-To, Rooms 277 /279)

Photo #14: Sample 11527-135: **Black countertop** on brown mastic (on tan metal shelf) (South Lean-To, Rooms 133 / 134)

Photo #15: Samples 11527-150/150QA: **Black steam tank gasket** w/ paint (12" OD) (South Lean-To, Exit Stair 04, Basement Trench)

Photo #16: Samples 11527-156/190/191/156QA: **Brown window frame caulking** (MFW between window frame & wood frame interior) (South Lean-To, Rooms 403 / 303)

Photo #17: Samples 11527-160/161/174: Maroon carpet squares w/ black mastic on tan tile w/ **black mastic** (on concrete) (South Lean-To, Room 402)

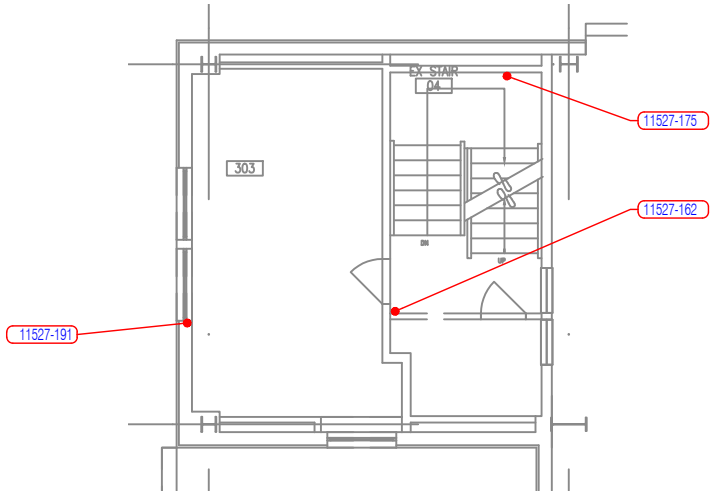
Photo #18: Samples 11527-166/167: **White window glazing** (metal frame window between window frame & wall frame) (South Lean-To, Room 270)

Photo #19: Samples 11527-172/713: **Yellow toilet caulking** (around base of toilets) (North and South Lean-To, Rooms 132, 149, 266, 288, 200, 230)

*ACM layers noted in **Bold text.**

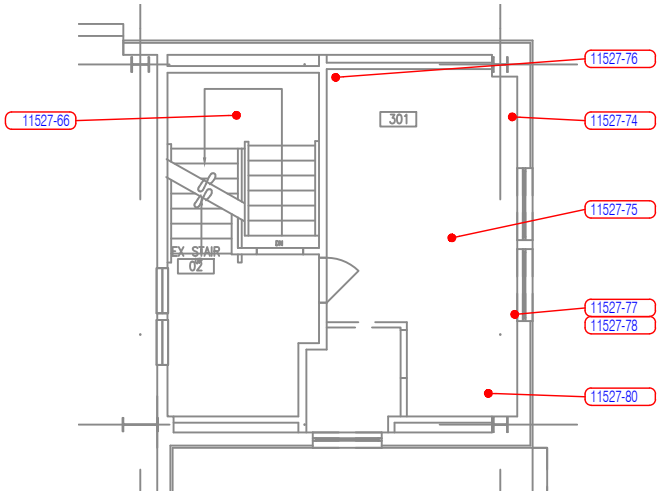
1. DRAWING IS SCHEMATIC AND SAMPLE LOCATIONS ARE APPROXIMATE.
2. REFER TO REPORT FOR MORE INFORMATION ABOUT THE SAMPLED MATERIALS.
3. BACKGROUND DRAWING WAS PREPARED BASED ON SKETCHES PREPARED IN THE FIELD.

NORTH



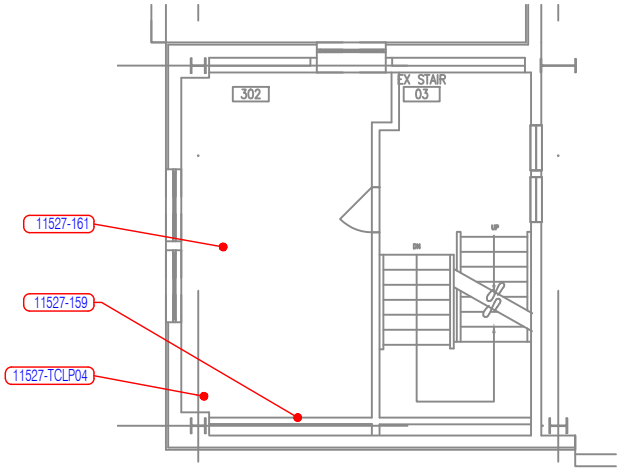
AREA A

NOT TO SCALE



AREA E

NOT TO SCALE



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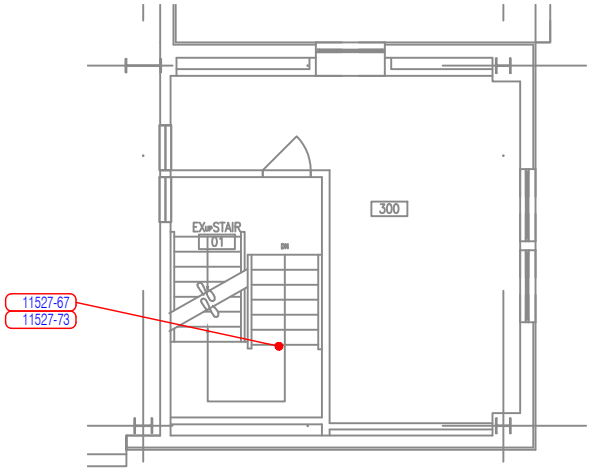
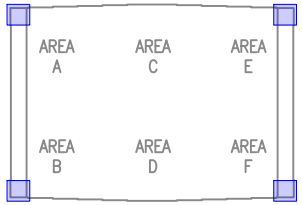


AREA F

NOT TO SCALE



KEY PLAN

NOT TO SCALE

N

ehsi
A Subsidiary of Environmental Strategies
1011 SW Klickitat Way, Suite 104
Seattle, Washington 98134
Ph: 206.381.1128
Fax: 206.254.4279

PROJECT INFO:
HAZARDOUS MATERIALS SURVEY
HANGAR 32 SHELL & CORE NOAA WESTERN REGIONAL CENTER
7600 SAND POINT WAY NE
SEATTLE, WA
AKS PS, INC
SEATTLE, WA

SURVEY DATES:
10/25/21-10/29/21
11/01/21-11/05/21
12/06/21

PROJECT MANAGER:
S. JOSHI

DRAWN BY:
F. DIMALANTA

INSPECTORS:
S. JOSHI
M. MACFARLANE

LEGEND:
11527-XX — BULK ASBESTOS SAMPLE LOCATIONS
11527-TCLPXX — BULK TCLP SAMPLE LOCATIONS
0000 — ROOM IDENTIFIER

DRAWING TITLE:
THIRD FLOOR PLAN

ISSUE DATE:
11/10/21

SCALE:
NTS

EHSI PROJECT #
11527-01

SHEET
SL-5