Compton Community College District
1111 E. Artesia Blvd.
Compton, CA 90221

DATE: **November 15, 2019**

TO: **All Bidders**

PROJECT: **RFQ CCC-059**
Cafeteria and Music Building HVAC and Fire Alarm

SUBJECT: **ADDENDUM #1**

The following changes, omissions, and/or additions to the Project Documents shall apply to bids made for and to the execution of the various parts of the work affected thereby, and all other conditions shall remain the same.

Careful note of the Addendum shall be taken by all parties of interest so that the proper allowances may be made in strict accordance with the Addendum.

Respondent shall acknowledge receipt of this Addendum in the bid documents. Failure to do so may subject Respondent to disqualification.

1. **General Information:**
   1.1 Change the bid date on Section 00 11 13 Notice To Contractor Calling For Bids to: **Thursday, November 21, 2019 at 2:00 p.m.**

   1.2 All exposed ductwork, hangers and accessories will be painted to match the existing surface.

2. **RFC questions and answers:**
   2.1 RFC Question and answer spreadsheet is attached.

3. **Changes to Specifications:**
   3.1 Replace the previously issued Section 00 41 00 Bid Proposal with the attached revised Section 00 41 00 Bid Proposal.

   3.2 Add the attached asbestos and lead survey and abatement specifications to the project. The contractor will be responsible to provide abatement of asbestos and lead per the attached specifications in both the Cafeteria and Music Buildings for the areas identified in the specifications ONLY if they are disturbed by cutting, patching, etc. necessary for this scope of work.

4. **Changes to Drawings:**

4.1 Revise Music Building Drawing E0.2 as follows:

A. Revise Single Line Diagram Note No. 9 to read "PANELBOARD "AC3". NEMA 3R SURFACE 120/208 VOLT 3 PHASE 4 WIRE 125 AMP 10000 AIC. REFER TO PANEL SCHEDULE."

B. Revise Single Line Diagram Note No. 10 to read "PANELBOARD "AC2". NEMA 1 SURFACE 120/208 VOLT 3 PHASE 4 WIRE 100 AMP 10000 AIC. REFER TO PANEL SCHEDULE."

4.2 Replace the following Mechanical and Plumbing Drawings previously issued with the revised drawings attached to this addendum:

A. Cafeteria Drawing M0.2, M1.1, M2.1 and P1.1.

B. Music Building Drawing M0.2 and M1.1

4.3 Narrative for the Mechanical and Plumbing Drawing changes clouded as Delta 1 is as follows:

Revisions to Cafeteria Drawing M0.2:

A. Revise outside air values for HP units

Revisions to Cafeteria Drawing M1.1:

A. Revise ductwork at dish wash area.

B. Revise Detail 1 – "Mechanical Floor Plan" to add Keynote #9.

C. Add Keynote #9 to "Plan Key Notes"

Revisions to Cafeteria Drawing M2.1:

A. Add Detail 3 – Duct Support Detail

Revisions to Cafeteria Drawing P1.1:

A. Revise Detail 1 and Detail 2.

B. Delete Keynote #3 from "Plan Key Notes"

C. Add Keynote #7 to "Plan Key Notes"

Revisions to Music Building Drawing M0.2:

A. Revise outside air values for FAU-4, FAU-5 and FAU-6.

Revisions to Music Building Drawing M1.1:

A. Revise Detail 1 – "Mechanical Floor Plan" to add ductwork with Keynote #19

B. Add Keynote #19 to "Plan Key Notes"

Attachments:

Section 00 41 00 Bid Proposal
RFC Question and Answer spreadsheet
Asbestos and Lead Survey and specifications
Cafeteria Drawing M0.2, M1.1, M2.1 and P1.1
Music Building Drawing M0.2 and M1.1

END OF ADDENDUM #1

COMPTON COMMUNITY COLLEGE DISTRICT

RFQ CCC-059 Cafeteria and Music Bldg. HVAC Fire Alarm

RFC Questions Answers

Addendum #1

November 15, 2019

RFC	Question	Reference Document	Answer
1	Please confirm that the work time during the 6 months is a nighttime (10:00 pm - 6:00 am), except for the holidays.		Confirmed. Shift work would most likely start at 10PM.
2	Working hours - please clarify working hours in Special Conditions item no. 5 is written for 7 am - 7 pm but in job walk told after normal hours. What time is normal hours?	Special Conditions Item No. 5	Normal working hours are from 7AM to 7PM when the students and staff are not on campus. Work to be performed in occupied spaces will be done as shift work. Reference Scope of Work section 01 01 00 - 1.02.A.4.

BID PROPOSAL
PROJECT: CAFETERIA AND MUSIC BLDG HVAC AND FIRE ALARM ("the Work")

Bidder Name	_____	
Bidder Representative(s)	_____ Name and Title _____ Name and Title	
Bidder Representative(s) Contact Information	Email _____ _____	Phone/Fax (_____) _____ Telephone (_____) _____ Fax
Bidder Mailing Address	_____ Address _____ City/State/Zip Code	
California Contractors' License	_____ Number _____ Classification and Expiration Date	

1. Bid Proposal.
   1.1. Bid Proposal Amount. The undersigned Bidder proposes to furnish all labor, materials, tools, equipment and services necessary to complete in accordance with the Contract Documents for the above-described Work, for the base bid sum of:
   _____ Dollars ($_____).

   FOR BUDGETING PURPOSES ONLY, PLEASE PROVIDE THE FOLLOWING BREAKDOWN OF PRICING:

   Amount of the base bid for the work associated with the Cafeteria HVAC and Fire Alarm:

   _____Dollars ($_____)

   Amount of the base bid for the work associated with the Music Bldg HVAC and Fire Alarm:

   _____Dollars ($_____)

   Amount of the base bid for the Allowance:
   Seventy five thousand dollars _____ ($___75,000.00_ _)

   The Bidder confirms that it has checked all of the above figures and understands that neither the District nor any of its agents, employees or representatives shall be responsible for any errors or omissions in this Bid Proposal.

   Allowance. The Bidder and District acknowledge that the Base Bid Proposal Price set forth above includes an Allowance Amount in the aggregate amount of Seventy Five thousand Dollars ($75,000.00),

$75,000.00	To be used at the District's Discretion

Although included in the Bid Proposal Price, Allowances belong solely to the District and shall be expended only upon written direction by the District, to be granted or denied in its sole discretion. Any Allowance amount not fully consumed shall belong solely to the District and shall be refunded to the District by a deductive change order. By submitting this Bid Proposal, the Bidder confirms that the Bid Price proposed in Paragraph 1.1 is inclusive of all Allowances.

1.2. Acknowledgment of Bid Addenda. The Bidder confirms that this Bid Proposal incorporates and is inclusive of, all items or other matters contained in Bid Addenda issued by or on behalf of the District. Received, acknowledged and incorporated into this Bid Proposal the following Addenda:

_____ _____
(List Addenda) (Initials of Bidder's Representative)

1.3. Alternate Bid Items. If the bidding includes Alternate Bid Items, the Bidder's price proposal(s) for Alternate Bid Items is/are set forth in the form of Alternate Bid Item Proposal attached to this Bid Proposal. Price proposal(s) for Alternate Bid Item(s) will not form the basis for the District's award of the Contract unless an Alternate Bid Item is incorporated into the scope of Work of the Contract awarded.

2. Documents Accompanying Bid Proposal. The Bidder has submitted with this Bid Proposal the following: (i) Bid Security; (ii) Subcontractors List; (iii) Statement of Qualifications; (iv) Non-Collusion Affidavit; and (v) DIR Registration Verification. The Bidder acknowledges that if this Bid Proposal and the foregoing documents are not fully in compliance with applicable requirements set forth in the Call for Bids, the Instructions for Bidders and in each of the foregoing documents, the Bid Proposal may be rejected for non-responsiveness.

3. Award of Contract. Within five (5) days after notification of award of the Contract, the Bidder awarded the Contract shall execute and deliver to the District three original signature copies of the Contract in the form attached hereto along with: (i) Certificates of Insurance evidencing all insurance coverages required under the Contract Documents; (ii) the Performance Bond; (iii) the Labor and Material Payment Bond; (iv) the Certificate of Workers' Compensation Insurance; and (v) the Drug-Free Workplace Certificate. Failure of the Bidder awarded the Contract to strictly comply with the preceding may result in the District's recession of the award of the Contract and/or forfeiture of the Bidder's Bid Security. In such event, the District may, in its sole and exclusive discretion elect to award the Contract to the responsible Bidder submitting the next lowest priced Bid Proposal, or to reject all Bid Proposals.

4. Contractors' License. The Bidder certifies that: (i) it is duly licensed, in the necessary class(es), for performing the Work of the Contract Documents, as designated by the District; (ii) that such license shall be in full force and effect throughout the duration of the performance of the Work under the Contract Documents; and (iii) that all Subcontractors providing or performing any portion of the Work are and shall remain properly licensed to perform or provide such portion of the Work.

5. Agreement to Bidding Requirements and Attorneys' fees. The undersigned Bidder acknowledges and confirms its receipt, review and agreement with, the contractual requirements set forth in this Bid Proposal and the Contract Documents. By executing this Bid Proposal hereinbelow, the Bidder

expressly acknowledges and agrees that if the Bidder institutes any legal or equitable proceedings in connection with this Bid Proposal and the District is named as a party thereto, the prevailing party(ies) shall recover from the other party(ies), as costs, all attorneys' fees and costs incurred in connection with any such proceeding, including any appeal arising therefrom. This provision shall constitute a binding attorneys' fee agreement in accordance with and pursuant to California Civil Code §1717 which shall be enforceable against the Bidder and the District. This attorney fee provision shall be solely limited to legal or equitable proceedings arising out of a bid protest or the bidding process and shall not extend to or have any force and effect on the Contract for the Work or to modify the terms of the Contract Documents for the Work.

6. Acknowledgment and Confirmation. The undersigned Bidder acknowledges its receipt, review and understanding of the Drawings, the Specifications and other Contract Documents pertaining to the proposed Work. By submitting this Bid Proposal, the undersigned Bidder certifies that the Contract Documents are, in its opinion, adequate, feasible, accurate and complete for the Bidder to complete the Work in a workmanlike manner within the Contract Time and for the price proposed herein. The undersigned Bidder warrants and represents to the District that it has, or has available, all necessary equipment, personnel, materials, facilities and technical and financial ability to complete the Work for the amount bid herein, within the Contract Time and in accordance with the Contract Documents.

Dated: _____

By: _____
(Signature of Bidder's Authorized Officer or Representative)

_____
(Typed or Printed Name)

Title: _____

LIMITED ASBESTOS AND LEAD-BASED PAINT XRF SURVEY REPORT

For:

COMPTON COMMUNITY COLLEGE
CAFETERIA/KITCHEN BUILDING
HVAC UPGRADE PROJECT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

Presented To:

COMPTON COMMUNITY COLLEGE DISTRICT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

Presented By:

BAINBRIDGE
Environmental Consultants

6226 Whittier Boulevard, Suite B
Los Angeles, California 90022
Phone: 213-921-4884
Fax: 714-247-0025

Bainbridge Project #: 18086507.10
August 22, 2018

August 22, 2018

Ms. Linda Owens
Director of Facilities, Planning and Operations
Compton Community College District
1111 East Artesia Boulevard
Compton, California 90221

BAINBRIDGE
Environmental Consultants

RE: Phase 1 – Limited Asbestos and Lead-Based Paint XRF Survey Report for Compton Community College – Cafeteria/Kitchen Building – HVAC Upgrade Project located at 1111 East Artesia Boulevard, Compton, California 90221.

Dear Ms. Owens:

At the request of Compton Community College District (CCCD), Bainbridge Environmental Consultants, Inc. (Bainbridge) conducted a limited asbestos and lead-based paint XRF survey for the upcoming/scheduled HVAC Upgrade Project at the Cafeteria/Kitchen Building located at the above-mentioned address.

This document has been prepared for the sole use of CCCD, their authorized agents, and any State, or local agencies involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

Thank you for the opportunity to be of service. Please do not hesitate to call us with any questions. We look forward to assisting you in the future.

Sincerely,
Bainbridge Environmental Consultants, Inc.

Karlin Cisco
Director of Operations
CAC # 16-5626/CDPH # 18300

Bainbridge Project #: 18086507.10
KC/bb

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Section

1.0 Asbestos Survey/Investigation

Sebastian Moreno, DOSH Certified Site Surveillance Technician (CSST), under the supervision of Karlin Cisco, DOSH Certified Asbestos Consultant (CAC), of Bainbridge, performed the limited survey activities and collected the suspect asbestos-containing building material bulk samples for laboratory analysis at Compton Community College - Cafeteria/Kitchen Building located at 1111 East Artesia Boulevard, Compton, California 90221. The purpose of the survey was to identify any suspect asbestos-containing materials that are scheduled to be impacted or disturbed during an upcoming/scheduled HVAC Upgrade Project at the subject property. The survey was performed on the date of August 15th, 2018 and consisted of a walk-through of the subject building and collection of suspect asbestos-containing building materials. This report reviews and summarizes the findings outlined in the attached asbestos bulk sample log and laboratory analysis report.

During this inspection, several criteria including bulk sampling were used to properly assess areas investigated. Visual and tactile assessments of suspect asbestos-containing building materials provided the basis for these criteria and allowed the inspector to group the materials into homogenous areas.

Bainbridge conducted the limited asbestos bulk sampling of the subject building in compliance with the following Federal, State, and Local regulations:

Code of Federal Regulations (CFR):

- 40 CFR Part 763 - Asbestos Containing Materials In Schools.
- 29 CFR 1910.1001 - Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite
- 29 CFR 1910.1101 - Asbestos
- 29 CFR 1910.1200 - Hazard Communication
- 29 CFR 1910.132 - General Requirements – Personal Protective Equipment
- 29 CFR 1910.134 - Respiratory Protection
- 29 CFR 1910.145 - Specifications for Accident Prevention, Signs and Tags
- 29 CFR 1910.1101 - Asbestos Standard for construction Industry
- 40 CFR 61 - Sub-part A General Conditions
- 40 CFR 61 - Sub-part M National Emission Standards for Asbestos
- 40 CFR 61.152 - Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations.

U.S. Environmental Protection Agency (EPA):

- Publication No. 560/5-85-024 - Guidance for Controlling Asbestos-Containing Materials in Buildings.

Title 8 California Code of Regulations (CCR):

- Section 1529 - Asbestos
- Section 5208 - General Industry Safety Orders
- Section 5144 - Respirator Regulations

Southern California Air Quality Management (SCAQMD):

- Rule 1403- Asbestos Emissions from Demolition/Renovation Activities.

1.1 Asbestos Findings

A total of thirty (30) bulk samples were collected for laboratory analysis. Some of those samples were separated [by the laboratory] by individual layers to determine a more accurate analysis. Therefore, the total number of the samples analyzed was forty-three (43). These samples were submitted under the chain of custody protocol to LA Testing, located in Huntington Beach, California 92649. LA Testing is certified with the NVLAP registration (code: 101384-0) and approved for asbestos bulk sample analysis in the state of California.

The sample analysis was performed by EPA Polarized Light Microscopy (PLM) coupled with dispersion staining, method 600/R-93/116, July 1993. All PLM analyses are derived from a calibrated visual estimate unless otherwise noted.

The following materials were determined to contain asbestos greater than one-tenth of 1% (ACM >.1%):

CAFETERIA/KITCHEN BUILDING:
Asbestos

Sample No.	Sample Location	Sample Description/Color	Material Location	Approx. Quantity	Laboratory Results
28	Cafeteria Roof	Duct Seam Mastic/Gray	Throughout Cafeteria Roof	25 Lin. Ft.	3% Chrysotile
29	Cafeteria Roof	Duct Seam Mastic/Gray	See Above	Included Above	3% Chrysotile

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered asbestos containing materials. Prior to bid, contractor is responsible for field verification of these materials, their quantities and measurements.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities; those suspect building materials will be considered asbestos-containing materials until a State Certified, Asbestos Consultant is retained to determine asbestos content of those materials.

Federal regulations define asbestos-containing material (ACM) as any material that contains more than one percent (>1%) asbestos. State Cal/OSHA-California Labor Code, Section 6501.8 defines “asbestos containing construction material (ACCM)” as any manufactured construction material that contains more than one tenth of one percent (>0.1%) asbestos by weight.

1.2 Asbestos Recommendations

Based on the available information gathered during the performance of this survey and its conclusions, Bainbridge recommends the following:

- Identified asbestos-containing materials must be removed prior to any scheduled renovation or demolition activities in adherence with South Coast Air Quality Management District (SCAQMD) regulations (Rule 1403).

- Bainbridge recommends the preparation of project specifications for the removal of identified asbestos-containing materials and/or Cal/OSHA regulated asbestos-containing construction materials (samples greater than .1% asbestos), as necessary. A State of California Certified Asbestos Consultant should be retained to properly document, inspect, and monitor the removal of any identified and/or assumed asbestos-containing materials. This is to ensure adherence to applicable State and Federal regulations and for the safety of building occupants in the vicinity of the abatement areas.

- Bainbridge recommends that a Cal/OSHA registered and state licensed abatement contracting company perform the abatement of the above-mentioned asbestos-containing materials. Any asbestos related work must be conducted in accordance with all applicable Federal, State, and local regulations. Firms performing the asbestos-related work must follow proper engineering practices and must use state-of-the-art techniques whenever possible.

1.3 Disclaimer and Limitations for Asbestos Related Projects

This document is prepared for the sole use of the CCCD and its authorized representatives and any agencies directly involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

The information in this report or portions thereof may be required to be included in notifications to employees, contractors or other visitors to the building(s). The CCCD or its agents shall not use this report as a specification or work plan for any of the work suggested or recommended in the report.

This report is based upon conditions and practices observed at the property and information made available to Bainbridge. This report does not identify all hazards or unsafe practices, nor does it indicate that other hazards or unsafe practices exist at the premises.

The conclusions and summary presented in this report are based on a review of pertinent regulations, and guidelines or requirements commonly followed by industry standards, data collected during the site inspection, and information provided by the CCCD, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. Bainbridge believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties.

Any observations of asbestos containing materials represent the conditions at the specified locations and times of the site inspection survey only. The selection of sample areas was limited to accessible areas of the Cafeteria/Kitchen Building.

2.0 Lead-Based Paint XRF Testing of Painted Surfaces

Sebastian Moreno, CDPH Certified Lead Sampling Technician, of Bainbridge, performed the limited survey activities and collected the suspect lead-based paint XRF readings at Compton Community College – Cafeteria/Kitchen Building located at 1111 East Artesia Boulevard, Compton, California 90221. The purpose of the survey was to identify any suspect lead-containing building materials that are scheduled to be impacted or disturbed during an upcoming/scheduled HVAC Upgrade Project at the subject property. The survey was performed on the date of August 15th, 2018 and consisted of a walk-through of the subject building and collection of XRF readings of suspect lead-containing building materials. This report reviews and summarizes the findings outlined in the attached XRF lead-based paint sampling log and with analytical results.

Bainbridge conducted the limited lead-based paint survey of the subject building in compliance with the following Federal, State, and Local regulations:

- 24 CFR Part 35.80-35.98 and 35.3120(b) – U.S. Department of Housing and Urban Development (HUD)
- Toxic Substances Control Act (TOSCA) Section 406
- 40 CFR 745.103 – Environmental Protection Agency (EPA)
- Title 17 Section 35000 – Code of California Regulations
- Cal/OSHA Title 8 Section 1532.1 – California Occupational Safety and Health Administration
- Cal/OSHA Title 8 Section 5194 – California Occupational Safety and Health Administration

In compliance with Title 17, CCR, Division 1, Chapter 8 and 24 CFR Subtitle A, Part 35.125, Bainbridge filed the 8552 form as required to notify the California Department of Health Services the findings of the lead inspection/assessment conducted on the site.

Currently, the State of California, the U.S Department of Housing and Urban Development (HUD), and the Environmental Protection Agency (EPA) define lead-based paint as paint or other surface coating with lead content equal to or greater than 1.0 milligram per square centimeter (mg/cm^2), 0.5% by weight and/or 5,000 parts per million lead on the surface area. However, The County of Los Angeles Department of Health Services (DHS) defines Lead-Based Paint as any paint or surface coating with concentrations of lead at or above 0.7 milligram per square centimeter (mg/cm^2). Based on the location of the subject property in Los Angeles County the "abatement level" (threshold) setting of 0.7 mg/cm^2 was chosen for this inspection.

XRF Paint Readings: XRF measurements were collected. Bainbridge conducted the survey using a Heuresis PB200i Analyzer, X-ray Fluorescence (XRF) detector. All survey activities and XRF measurements were performed in accordance with the United States Department of Housing and Urban Development's guidance document, entitled "Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing: Chapter 7 Lead-based paint inspection".

2.1 Lead-Based Paint Findings

XRF Testing: Fifteen (15) XRF readings were collected. The field data and results of XRF testing are included in Appendix B of this report.

The XRF Lead Sampling Logs are provided as an attachment to this survey/inspection report. These logs tabulate each individual test, sample taken throughout the subject building and describes the test location, the component to which the paint is applied, condition, color and lead content in milligrams per square centimeter and the result.

CAFETERIA/KITCHEN BUILDING:
As a result of lead-based paint XRF testing:

- **Lead-based paint was not detected in any the readings collected.**

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered lead-containing materials. Prior to bid, contractor is responsible for field verification of those materials, their quantities and measurements.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities: those suspect building materials will be considered lead-containing materials. In this event, a California State Inspector/Assessor shall be retained to sample/test those materials to determine their lead content prior to authorization of additional abatement work.

2.2 Lead-Based Paint Recommendations

Based on the available information gathered during the performance of this survey and its conclusions, Bainbridge makes no recommendations for abatement at this time.

2.3 Disclaimer and Limitations for Lead-Based Paint and Components

This document is prepared for the sole use of the CCCD and its authorized representatives and any agencies directly involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

The information in this report or portions thereof may be required to be included in notifications to employees, contractors or other visitors to the building. CCCD or its agents shall not use this report as a project specification or work plan for any of the work suggested or recommended in the report.

This report is based upon conditions and practices observed at the property and information made available to Bainbridge. This report does not identify all hazards or unsafe practices, nor does it indicate that other hazards or unsafe practices exist at the premises.

This inspection and assessment was planned, developed, and patterned after *HUD Guidelines Chapter 7 Lead-based paint inspection*. Bainbridge utilized state-of-the-art practices and techniques in accordance with regulatory standards while performing this inspection. Bainbridge's evaluation of the relative risk of exposure to lead identified during this inspection is based on conditions observed at the time of the inspection. Bainbridge cannot be responsible for changing conditions that may alter the relative exposure risk or for future changes in accepted methodology.

The conclusions and summary presented in this report are based on a review of pertinent regulations, and guidelines or requirements commonly followed by industry standards, data collected during the site inspection, and information provided by CCCD, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. Bainbridge believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties.

Any observations of lead-based paint and lead containing materials represent the conditions at the specified locations and times of the site inspection survey only. The selection of sample areas was limited to accessible areas of the Cafeteria/Kitchen Building.

APPENDIX A

ASBESTOS FIELD DATA AND LABORATORY RESULTS

ASBESTOS BULK SAMPLE LOG

Client: Compton Community College District
Project Name: Cafeteria/Kitchen Building HVAC Upgrade Project
Address: 1111 East Artesia Boulevard, Compton, California 90221

Bainbridge Project #: 18086507.10
Inspector/Sampler: S. Moreno
Date Sampled: 08/15/2018

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
1-Ceiling Tile	Cafeteria Office	12x12 Pinhole Ceiling Tile with Hockey Puck Mastic	White/ Brown	Good	Friable	Throughout Cafeteria Office	N/A	None Detected
1-Mastic	Cafeteria Office	12x12 Pinhole Ceiling Tile with Hockey Puck Mastic	White/ Brown	Good	Friable	See Above	N/A	None Detected
2-Ceiling Tile	Cafeteria Office	12x12 Pinhole Ceiling Tile with Hockey Puck Mastic	White/ Brown	Good	Friable	See Above	N/A	None Detected
2-Mastic	Cafeteria Office	12x12 Pinhole Ceiling Tile with Hockey Puck Mastic	White/ Brown	Good	Friable	See Above	N/A	None Detected
3-Ceiling Tile	Cafeteria Office	12x12 Pinhole Ceiling Tile with Hockey Puck Mastic	White/ Brown	Good	Friable	See Above	N/A	None Detected
3-Mastic	Cafeteria Office	12x12 Pinhole Ceiling Tile with Hockey Puck Mastic	White/ Brown	Good	Friable	See Above	N/A	None Detected
4-Mastic	Cafeteria Office	Drywall Ceiling	White	Good	Non-Friable	Throughout Cafeteria Office	N/A	None Detected
4-Drywall	Cafeteria Office	Drywall Ceiling	White	Good	Non-Friable	See Above	N/A	None Detected
5-Mastic	Cafeteria Office	Drywall Ceiling	White	Good	Non-Friable	See Above	N/A	None Detected
5-Drywall	Cafeteria Office	Drywall Ceiling	White	Good	Non-Friable	See Above	N/A	None Detected
6	Cafeteria Office	Drywall Ceiling	White	Good	Non-Friable	See Above	N/A	None Detected
7	Cafeteria Office	Plaster	White	Good	Non-Friable	Throughout Cafeteria	N/A	None Detected

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Cafeteria/Kitchen Building – 1111 East Artesia Boulevard, Compton, CA 90221

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
8	Cafeteria Office	Plaster	White	Good	Non-Friable	See Above	N/A	None Detected
9	Cafeteria Office	Plaster	White	Good	Non-Friable	See Above	N/A	None Detected
10-Joint Compound	Dish Wash Area	Drywall and Joint Compound	White	Good	Non-Friable	Throughout Dish Wash Area	N/A	None Detected
10-Drywall	Dish Wash Area	Drywall and Joint Compound	White	Good	Non-Friable	See Above	N/A	None Detected
11-Joint Compound	Dish Wash Area	Drywall and Joint Compound	White	Good	Non-Friable	See Above	N/A	None Detected
11-Drywall	Dish Wash Area	Drywall and Joint Compound	White	Good	Non-Friable	See Above	N/A	None Detected
12- Skim Coat	Dish Wash Area	Drywall and Joint Compound	White	Good	Non-Friable	Throughout Dish Wash Area	N/A	None Detected
12- Joint Compound	Dish Wash Area	Drywall and Joint Compound	White	Good	Non-Friable	See Above	N/A	None Detected
12- Drywall	Dish Wash Area	Drywall and Joint Compound	White	Good	Non-Friable	See Above	N/A	None Detected
13	Attic	Plaster	White	Good	Non-Friable	Throughout Attic	N/A	None Detected
14	Attic	Plaster	White	Good	Non-Friable	See Above	N/A	None Detected
15	Attic	Plaster	White	Good	Non-Friable	See Above	N/A	None Detected
16	Cafeteria Attic	Duct Seam Mastic	White	Good	Non-Friable	Throughout Attic	N/A	None Detected
17	Cafeteria Attic	Duct Seam Mastic	White	Good	Non-Friable	See Above	N/A	None Detected

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Cafeteria/Kitchen Building – 1111 East Artesia Boulevard, Compton, CA 90221

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
18	Cafeteria Attic	Duct Seam Mastic	White	Good	Non-Friable	See Above	N/A	None Detected
19-Insulation	Cafeteria Roof	Roofing Material	Gray	Good	Non-Friable	Throughout Cafeteria Roof	N/A	None Detected
19-Roofing	Cafeteria Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
20-Insulation	Cafeteria Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
20-Roofing	Cafeteria Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
21-Shingle	Cafeteria Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
21-Roofing	Cafeteria Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
21-Insulation	Cafeteria Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
22	Cafeteria Roof	Curb Mastic	Black	Good	Non-Friable	Throughout Cafeteria Roof	N/A	None Detected
23	Cafeteria Roof	Curb Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected
24	Cafeteria Roof	Curb Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected
25	Cafeteria Roof	Pipe Mastic	Black	Good	Non-Friable	Throughout Cafeteria Roof	N/A	None Detected
26	Cafeteria Roof	Pipe Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected
27	Cafeteria Roof	Pipe Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Cafeteria/Kitchen Building – 1111 East Artesia Boulevard, Compton, CA 90221

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
28	**Cafeteria Roof**	**Duct Seam Mastic**	**Gray**	**Good**	**Non-Friable**	**Throughout Cafeteria Roof**	**25 Lin. Ft.**	**3% Chrysotile**
29	**Cafeteria Roof**	**Duct Seam Mastic**	**Gray**	**Good**	**Non-Friable**	**See Above**	**Included Above**	**3% Chrysotile**
30	Cafeteria Roof	Duct Seam Mastic	Gray	Good	Non-Friable	See Above	N/A	None Detected

-End of Report-

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / gardengrovelab@latesting.com

LA Testing Order:	331816701
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Attention:	Karlin Cisco	**Phone:**	(714) 403-7191
	Bainbridge Environmental Consultants	**Fax:**	(714) 247-0025
	1322 Bell Avenue	**Received Date:**	08/15/2018 4:45 PM
	Suite 1N	**Analysis Date:**	08/20/2018
	Tustin, CA 92780	**Collected Date:**	08/15/2018
Project:	18086507.10/ CCCD Cafeteria/Kitchen Building HVAC Upgrade Project		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1-Ceiling Tile *331816701-0001*	Cafeteria Office - 12x12 Pinhole & Ceiling Tile w/ Hockey Puck Mastic	Brown/White Fibrous Heterogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
1-Mastic *331816701-0001A*	Cafeteria Office - 12x12 Pinhole & Ceiling Tile w/ Hockey Puck Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-Ceiling Tile *331816701-0002*	Cafeteria Office - 12x12 Pinhole & Ceiling Tile w/ Hockey Puck Mastic	Brown/White Fibrous Heterogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
2-Mastic *331816701-0002A*	Cafeteria Office - 12x12 Pinhole & Ceiling Tile w/ Hockey Puck Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-Ceiling Tile *331816701-0003*	Cafeteria Office - 12x12 Pinhole & Ceiling Tile w/ Hockey Puck Mastic	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
3-Mastic *331816701-0003A*	Cafeteria Office - 12x12 Pinhole & Ceiling Tile w/ Hockey Puck Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-Mastic *331816701-0004*	Cafeteria Office - Drywall Ceiling	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-Drywall *331816701-0004A*	Cafeteria Office - Drywall Ceiling	Brown/White Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
5-Mastic *331816701-0005*	Cafeteria Office - Drywall Ceiling	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5-Drywall *331816701-0005A*	Cafeteria Office - Drywall Ceiling	Brown/White Fibrous Heterogeneous	8% Cellulose 2% Glass	90% Non-fibrous (Other)	None Detected
6 *331816701-0006*	Cafeteria Office - Drywall Ceiling	Brown/White Fibrous Heterogeneous	2% Cellulose 2% Glass	96% Non-fibrous (Other)	None Detected
7 *331816701-0007*	Cafeteria Office - Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8 *331816701-0008*	Cafeteria Office - Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9 *331816701-0009*	Cafeteria Office - Plaster	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 08/20/2018 12:28:50

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / gardengrovelab@latesting.com

LA Testing Order:	331816701
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
10-Joint Compound *331816701-0010*	Cafeteria Dishwash Area - Drywall & Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-Drywall *331816701-0010A*	Cafeteria Dishwash Area - Drywall & Joint Compound	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	88% Non-fibrous (Other)	None Detected
11-Joint Compound *331816701-0011*	Cafeteria Dishwash Area - Drywall & Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-Drywall *331816701-0011A*	Cafeteria Dishwash Area - Drywall & Joint Compound	Brown/White Fibrous Heterogeneous	8% Cellulose 3% Glass	89% Non-fibrous (Other)	None Detected
12-Skim Coat *331816701-0012*	Cafeteria Dishwash Area - Drywall & Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-Joint Compound *331816701-0012A*	Cafeteria Dishwash Area - Drywall & Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-Drywall *331816701-0012B*	Cafeteria Dishwash Area - Drywall & Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13 *331816701-0013*	Cafeteria Attic - Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14 *331816701-0014*	Cafeteria Attic - Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15 *331816701-0015*	Cafeteria Attic - Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16 *331816701-0016*	Cafeteria Attic - Duct Seam Mastic	Brown/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
17 *331816701-0017*	Cafeteria Attic - Duct Seam Mastic	Brown/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
18 *331816701-0018*	Cafeteria Attic - Duct Seam Mastic	White/Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-Insulation *331816701-0019*	Cafeteria Roof - Roofing Material	Brown Fibrous Homogeneous	45% Cellulose	55% Non-fibrous (Other)	None Detected
19-Roofing *331816701-0019A*	Cafeteria Roof - Roofing Material	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-Insulation *331816701-0020*	Cafeteria Roof - Roofing Material	Brown Fibrous Homogeneous	45% Cellulose	55% Non-fibrous (Other)	None Detected
20-Roofing *331816701-0020A*	Cafeteria Roof - Roofing Material	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-Shingle *331816701-0021*	Cafeteria Roof - Roofing Material	White/Black Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
21-Roofing *331816701-0021A*	Cafeteria Roof - Roofing Material	Black Fibrous Homogeneous	2% Glass	98% Non-fibrous (Other)	None Detected

Initial report from: 08/20/2018 12:28:50

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / gardengrovelab@latesting.com

LA Testing Order:	331816701
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
21-Insulation *331816701-0021B*	Cafeteria Roof - Roofing Material	Brown Fibrous Homogeneous	70% Cellulose 10% Glass	20% Non-fibrous (Other)	None Detected
22 *331816701-0022*	Cafeteria Roof - Curb Mastic	White/Black Non-Fibrous Heterogeneous	5% Cellulose 2% Glass	93% Non-fibrous (Other)	None Detected
23 *331816701-0023*	Cafeteria Roof - Curb Mastic	White/Black Non-Fibrous Heterogeneous	6% Cellulose 3% Glass	91% Non-fibrous (Other)	None Detected
24 *331816701-0024*	Cafeteria Roof - Curb Mastic	White/Black Fibrous Heterogeneous	6% Cellulose 5% Synthetic	89% Non-fibrous (Other)	None Detected
25 *331816701-0025*	Cafeteria Roof - Pipe Mastic	White/Black Non-Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
26 *331816701-0026*	Cafeteria Roof - Pipe Mastic	White/Black Non-Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
27 *331816701-0027*	Cafeteria Roof - Pipe Mastic	White/Black Fibrous Heterogeneous	6% Cellulose	94% Non-fibrous (Other)	None Detected
28 *331816701-0028*	Cafeteria Roof - Duct Seam Mastic	Gray/Black Fibrous Heterogeneous		97% Non-fibrous (Other)	3% Chrysotile
29 *331816701-0029*	Cafeteria Roof - Duct Seam Mastic	Gray/Black Fibrous Heterogeneous		97% Non-fibrous (Other)	3% Chrysotile
30 *331816701-0030*	Cafeteria Roof - Duct Seam Mastic	Brown/Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Carolynn Tom (15)
David Garcia (16)
Elizabeth Herrera (12)

Michael DeCavallas, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by LA Testing Huntington Beach, CA NVLAP Lab Code 101384-0, CA ELAP 1406

Initial report from: 08/20/2018 12:28:50

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 331816701#

PHONE:
FAX:

Company Name : Bainbridge Environmental Consultants, Inc.		**EMSL Customer ID:**	
Street: 1322 Bell Avenue, Suite 1N		**City:** Tustin	**State/Province:** CA
Zip/Postal Code: 92780	**Country:** U.S.	**Telephone #:** 714-247-0024	**Fax #:** 714-247-0025
Report To (Name): Karlin Cisco		**Please Provide Results:** ☐ Fax ☑ Email	
Email Address: kcisco@bainbridge-env.com		**Purchase Order:**	
Project Name/Number: CCCD Cafeteria/Kitchen Building HVAC Upgrade Project		**EMSL Project ID** *(Internal Use Only)*:	
U.S. State Samples Taken: California		**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt	

EMSL-Bill to: ☑ Same ☐ Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☒ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air ☐ Check if samples are from NY
☐ NIOSH 7400
☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
☑ PLM EPA 600/R-93/116 (<1%)
☐ PLM EPA NOB (<1%)
Point Count
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/Gravimetric
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
☐ NYS 198.1 (friable in NY)
☐ NYS 198.6 NOB (non-friable-NY)
☐ NYS 198.8 SOF-V
☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT (AHERA only)**
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP
☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
Fibers >10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
☐ Microvac - ASTM D 5755
☐ Wipe - ASTM D6480
☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite*
☐ PLM CARB 435 - A (0.25% sensitivity)
☐ PLM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - C (0.01% sensitivity)
☐ TEM Qual. via Filtration Technique
☐ TEM Qual. via Drop-Mount Technique
*Can not accept New York State Loose Fill Vermiculite Samples

Other:
☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** | **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: S. MORENO | **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	PLEASE SEE ATTACHED COC		

Client Sample # (s): 1 - 30 **Total # of Samples:** 30

Relinquished (Client): S. MORENO **Date:** 08/15/2018 **Time:** 16:45

Received (Lab): emendoza (WI)(y) **Date:** 8/15/18 **Time:** 4:45pm

Comments/Special Instructions: PLEASE CALL WITH ANY QUESTIONS/CONCERNS. THANK YOU.

per Karlin; 72 hr Okay. CM.

APPENDIX B

LEAD-BASED PAINT FIELD DATA AND ANALYTICAL RESULTS

XRF Lead-Based Paint Sampling Log

Client: Compton Community College District
Cafeteria/Kitchen Building
Site: HVAC Upgrade Project
Address: 1111 East Artesia Boulevard
Compton, California 90221

Client Project #: N/A
Bainbridge Project #: 18086507.10
Inspector/Sampler: S. Moreno
Date Sampled: 8/15/2018

BAINBRIDGE
Environmental Consultants

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
1	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**1.0**	**Positive**	**Time: 930 am**
2	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**0.9**	**Positive**	**Time: 930 am**
3	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**1.0**	**Positive**	**Time: 931 am**
4	A	Cafeteria	Office	Wall	Plaster	White	0.2	Negative	N/A
5	B	Cafeteria	Office	Wall	Plaster	White	0.2	Negative	N/A
6	C	Cafeteria	Office	Wall	Plaster	White	0.1	Negative	N/A
7	D	Cafeteria	Office	Wall	Plaster	White	0.1	Negative	N/A
8	C	Cafeteria	Dish Wash Area	Ceiling	Drywall	White	0.0	Negative	N/A
9	C	Cafeteria	Dish Wash Area	Wall	Drywall	White	0.0	Negative	N/A
10	A	Cafeteria	Roof	Roofing Material	Wood	Gray	0.1	Negative	N/A
11	B	Cafeteria	Roof	Curb	Wood	Gray	0.0	Negative	N/A
12	C	Cafeteria	Roof	Roofing Material	Wood	Gray	0.0	Negative	N/A
13	**N/A**	**N/A**	**Calibration**	**Calibration**	**N/A**	**Green**	**1.0**	**Positive**	**Time: 1415**
14	**N/A**	**N/A**	**Calibration**	**Calibration**	**N/A**	**Green**	**1.0**	**Positive**	**Time: 1415**

XRF Lead-Based Paint Sampling Log

Compton Community College District – Cafeteria/Kitchen Building – 1111 East Artesia Boulevard, Compton, CA 90221

BAINBRIDGE
Environmental Consultants

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
15	N/A	N/A	Calibration	Calibration	N/A	Green	0.7	Positive	Time: 1416

-End of Report-

APPENDIX C

ASBESTOS AND LEAD INSPECTOR'S STATE CERTIFICATIONS


State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant
Karlin P Cisco
Name
Certification No. 16-5626
Expires on 03/15/19
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.


State of California Department of Public Health
Lead-Related Construction Certificate
Certificate Type
Expiration Date
Inspector/Assessor
02/26/2019
Karlin P. Cisco
ID #: 18300

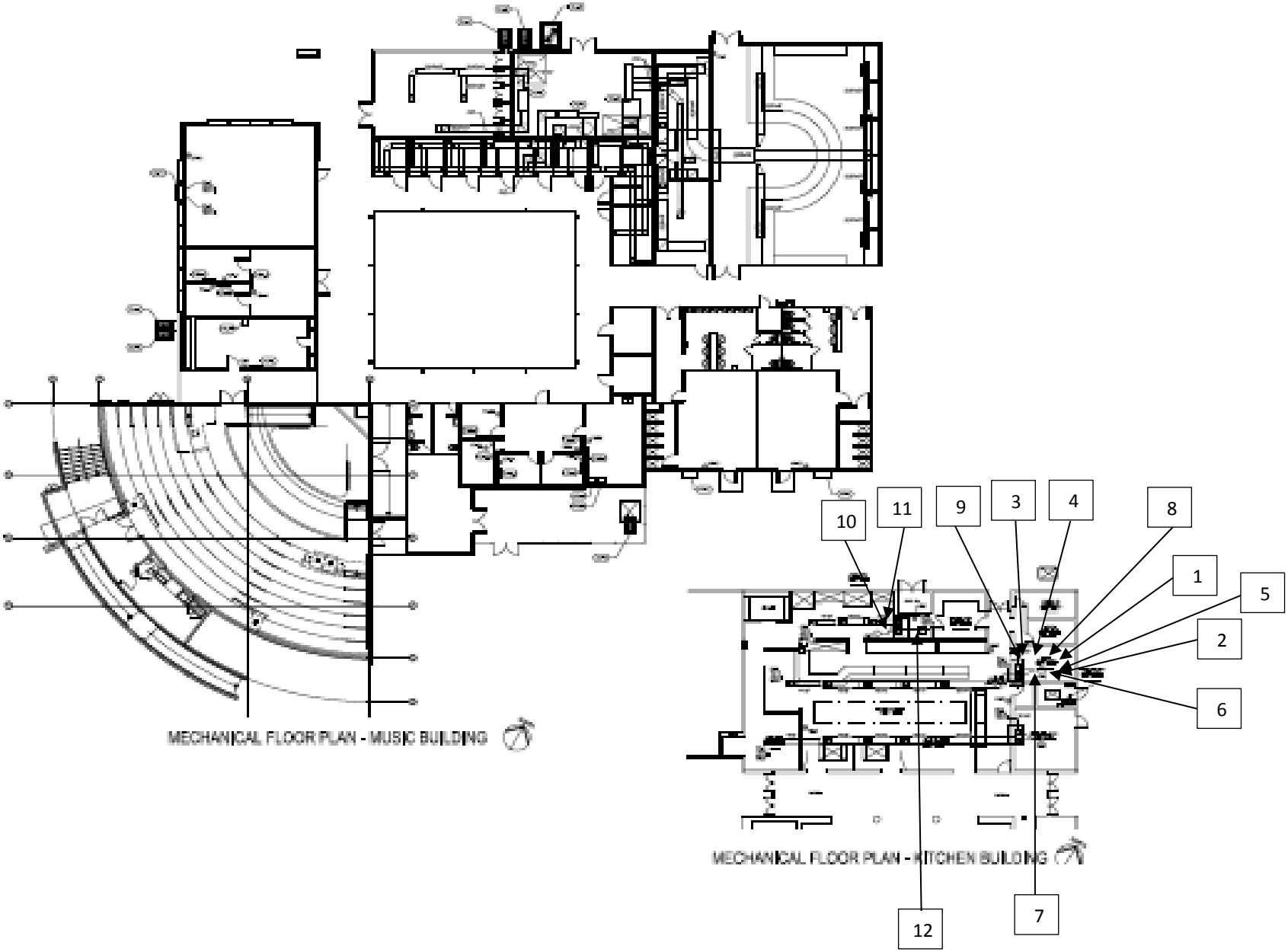

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician
Sebastian C Moreno
Name
Certification No. 17-6006
Expires on 08/16/19
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.


State of California Department of Public Health
Lead-Related Construction Certificate
Certificate Type
Expiration Date
Sampling Technician
01/09/2019
Sebastian C. Moreno
ID #: 30769

APPENDIX D

ASBESTOS AND LEAD SAMPLE LOCATION DRAWINGS

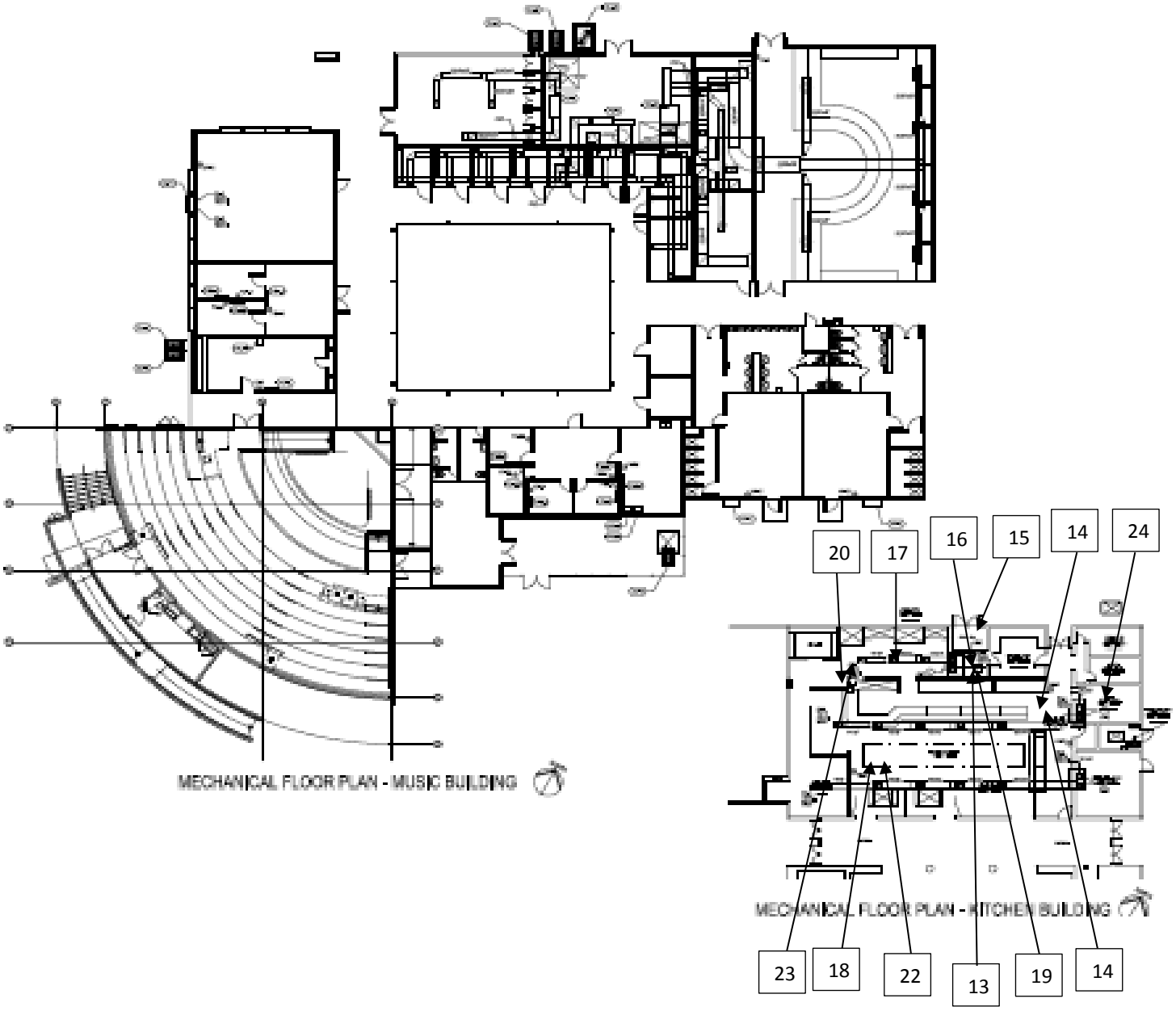
Compton Community College District
Compton Community College Cafeteria and Kitchen Building – HVAC Upgrade Project
Asbestos Sample Location Drawing (Samples 1-12)



BAINBRIDGE
Environmental Consultants

6266 Whittier Boulevard, Suite B ◆ Los Angeles, California 90022
Phone (213) 921-4884 ◆ Fax (714) 247-0025

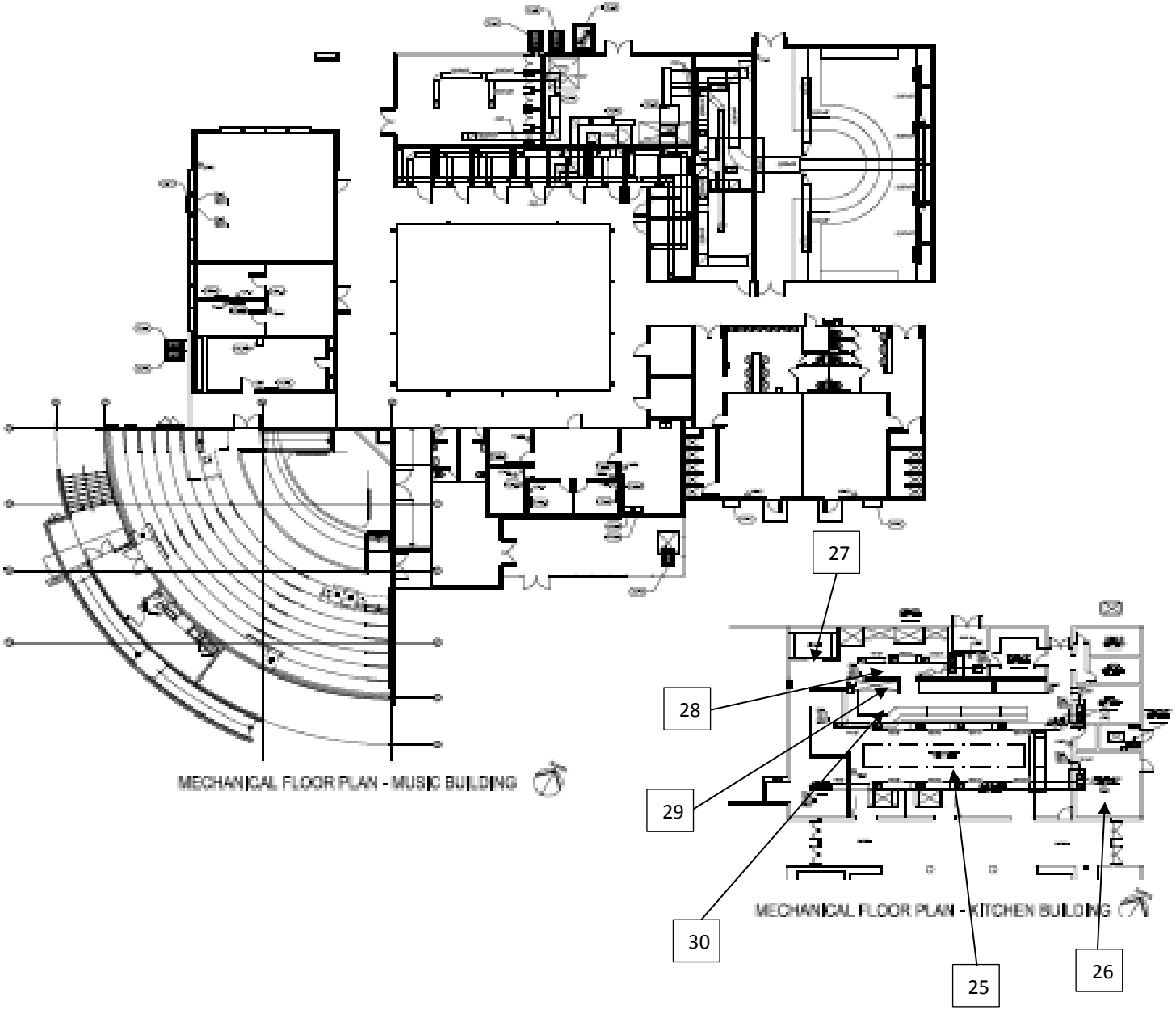
Compton Community College District
Compton Community College Cafeteria and Kitchen Building – HVAC Upgrade Project
Asbestos Sample Location Drawing (Samples 13-24)



BAINBRIDGE
Environmental Consultants

6266 Whittier Boulevard, Suite B ◆ Los Angeles, California 90022
Phone (213) 921-4884 ◆ Fax (714) 247-0025

Compton Community College District
Compton Community College Cafeteria and Kitchen Building – HVAC Upgrade Project
Asbestos Sample Location Drawing (Samples 28-30)



BAINBRIDGE
Environmental Consultants

6266 Whittier Boulevard, Suite B ◆ Los Angeles, California 90022
Phone (213) 921-4884 ◆ Fax (714) 247-0025

APPENDIX E

COPY OF CDHP LEAD HAZARD EVALUATION FORM 8552

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation August 15, 2018

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
1111 E. Artesia Boulevard	Compton	Los Angeles	90221

Construction date (year) of structure	Type of structure		Children living in structure?	
Circa 1950	☐ Multi-unit building	☑ School or daycare	☐ Yes	☑ No
	☐ Single family dwelling	☐ Other_____	☐ Don't Know	

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
Compton Community College District	310-200-6900

Address [number, street, apartment (if applicable)]	City	State	Zip Code
1111 E. Artesia Boulevard	Compton	California	90221

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other_____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Sebastian Moreno	714-213-247-0025

Address [number, street, apartment (if applicable)]	City	State	Zip Code
6226 Whittier Boulevard	Los Angeles	California	90022

CDPH certification number	Signature	Date
S. Moreno #30769		August 22, 2018

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Not applicable

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

LIMITED ASBESTOS AND LEAD-BASED PAINT XRF SURVEY REPORT

For:

COMPTON COMMUNITY COLLEGE
MUSIC BUILDING – NAT KING COLE ROOM,
LITTLE RICHARD ROOM AND RAMSEY LEWIS ROOM
HVAC UPGRADE PROJECT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

Presented To:

COMPTON COMMUNITY COLLEGE DISTRICT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

Presented By:

BAINBRIDGE
Environmental Consultants

6226 Whittier Boulevard, Suite B
Los Angeles, California 90022
Phone: 213-921-4884
Fax: 714-247-0025

Bainbridge Project #: 18086508.10
August 22, 2018

August 22, 2018

Ms. Linda Owens
Director of Facilities, Planning and Operations
Compton Community College District
1111 East Artesia Boulevard
Compton, California 90221

BAINBRIDGE
Environmental Consultants

RE: Phase 1 – Limited Asbestos and Lead-Based Paint XRF Survey Report for Compton Community College – Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room – HVAC Upgrade Project located at 1111 East Artesia Boulevard, Compton, California 90221.

Dear Ms. Owens:

At the request of Compton Community College District (CCCD), Bainbridge Environmental Consultants, Inc. (Bainbridge) conducted a limited asbestos and lead-based paint XRF survey for the upcoming/scheduled HVAC Upgrade at the Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room located at the above-mentioned address.

This document has been prepared for the sole use of CCCD, their authorized agents, and any State, or local agencies involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

Thank you for the opportunity to be of service. Please do not hesitate to call us with any questions. We look forward to assisting you in the future.

Sincerely,
Bainbridge Environmental Consultants, Inc.

Karlin Cisco
Director of Operations
CAC # 16-5626/CDPH # 18300

Bainbridge Project #: 18086508.10
KC/bb

TABLE OF CONTENTS

Section

1.0 Asbestos Survey/Investigation

Sebastian Moreno, DOSH Certified Site Surveillance Technician (CSST), under the supervision of Karlin Cisco, DOSH Certified Asbestos Consultant (CAC), of Bainbridge, performed the limited survey activities and collected the suspect asbestos-containing building material bulk samples for laboratory analysis at Compton Community College - Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room located at 1111 East Artesia Boulevard, Compton, California 90221. The purpose of the survey was to identify any suspect asbestos-containing materials that are scheduled to be impacted or disturbed during an upcoming/scheduled HVAC Upgrade Project at the subject property. The survey was performed on the date of August 15th, 2018 and consisted of a walk-through of the subject rooms and collection of suspect asbestos-containing building materials. This report reviews and summarizes the findings outlined in the attached asbestos bulk sample log and laboratory analysis report.

During this inspection, several criteria including bulk sampling were used to properly assess areas investigated. Visual and tactile assessments of suspect asbestos-containing building materials provided the basis for these criteria and allowed the inspector to group the materials into homogenous areas.

Bainbridge conducted the limited asbestos bulk sampling of the subject rooms in compliance with the following Federal, State, and Local regulations:

Code of Federal Regulations (CFR):

- 40 CFR Part 763 - Asbestos Containing Materials In Schools.
- 29 CFR 1910.1001 - Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite
- 29 CFR 1910.1101 - Asbestos
- 29 CFR 1910.1200 - Hazard Communication
- 29 CFR 1910.132 - General Requirements – Personal Protective Equipment
- 29 CFR 1910.134 - Respiratory Protection
- 29 CFR 1910.145 - Specifications for Accident Prevention, Signs and Tags
- 29 CFR 1910.1101 - Asbestos Standard for construction Industry
- 40 CFR 61 - Sub-part A General Conditions
- 40 CFR 61 - Sub-part M National Emission Standards for Asbestos
- 40 CFR 61.152 - Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations.

U.S. Environmental Protection Agency (EPA):

- Publication No. 560/5-85-024 - Guidance for Controlling Asbestos-Containing Materials in Buildings.

Title 8 California Code of Regulations (CCR):

- Section 1529 - Asbestos
- Section 5208 - General Industry Safety Orders
- Section 5144 - Respirator Regulations

Southern California Air Quality Management (SCAQMD):

- Rule 1403- Asbestos Emissions from Demolition/Renovation Activities.

1.1 Asbestos Findings

A total of forty-two (42) bulk samples were collected for laboratory analysis. Some of those samples were separated [by the laboratory] by individual layers to determine a more accurate analysis. Therefore, the total number of the samples analyzed was sixty (60). These samples were submitted under the chain of custody protocol to LA Testing, located in Huntington Beach, California 92649. LA Testing is certified with the NVLAP registration (code: 101384-0) and approved for asbestos bulk sample analysis in the state of California.

The sample analysis was performed by EPA Polarized Light Microscopy (PLM) coupled with dispersion staining, method 600/R-93/116, July 1993. All PLM analyses are derived from a calibrated visual estimate unless otherwise noted.

The following materials were determined to contain asbestos greater than one-tenth of 1% (ACM >.1%):

MUSIC BUILDING – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room: Asbestos

Sample No.	Sample Location	Sample Description/Color	Material Location	Approx. Quantity	Laboratory Results
13	Nat King Cole	Wall Panel/White	Nat King Coke, Ramsey Lewis & Little Richard Rooms	1,400 Sq. Ft.	12% Chrysotile
14	Ramsey Lewis	Wall Panel/White	See Above	Included Above	13% Chrysotile
15	Little Richard	Wall Panel/White	See Above	Included Above	13% Chrysotile

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered asbestos containing materials. Prior to bid, contractor is responsible for field verification of these materials, their quantities and measurements.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities; those suspect building materials will be considered asbestos-containing materials until a State Certified, Asbestos Consultant is retained to determine asbestos content of those materials.

Federal regulations define asbestos-containing material (ACM) as any material that contains more than one percent (>1%) asbestos. State Cal/OSHA-California Labor Code, Section 6501.8 defines “asbestos containing construction material (ACCM)” as any manufactured construction material that contains more than one tenth of one percent (>0.1%) asbestos by weight.

1.2 Asbestos Recommendations

Based on the available information gathered during the performance of this survey and its conclusions, Bainbridge recommends the following:

- Identified asbestos-containing materials must be removed prior to any scheduled renovation or demolition activities in adherence with South Coast Air Quality Management District (SCAQMD) regulations (Rule 1403).

- Bainbridge recommends the preparation of project specifications for the removal of identified asbestos-containing materials and/or Cal/OSHA regulated asbestos-containing construction materials (samples greater than .1% asbestos), as necessary. A State of California Certified Asbestos Consultant should be retained to properly document, inspect, and monitor the removal of any identified and/or assumed asbestos-containing materials. This is to ensure adherence to applicable State and Federal regulations and for the safety of building occupants in the vicinity of the abatement areas.

- Bainbridge recommends that a Cal/OSHA registered and state licensed abatement contracting company perform the abatement of the above-mentioned asbestos-containing materials. Any asbestos related work must be conducted in accordance with all applicable Federal, State, and local regulations. Firms performing the asbestos-related work must follow proper engineering practices and must use state-of-the-art techniques whenever possible.

1.3 Disclaimer and Limitations for Asbestos Related Projects

This document is prepared for the sole use of the CCCD and its authorized representatives and any agencies directly involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

The information in this report or portions thereof may be required to be included in notifications to employees, contractors or other visitors to the building. The CCCD or its agents shall not use this report as a specification or work plan for any of the work suggested or recommended in the report.

This report is based upon conditions and practices observed at the property and information made available to Bainbridge. This report does not identify all hazards or unsafe practices, nor does it indicate that other hazards or unsafe practices exist at the premises.

The conclusions and summary presented in this report are based on a review of pertinent regulations, and guidelines or requirements commonly followed by industry standards, data collected during the site inspection, and information provided by the CCCD, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. Bainbridge believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties.

Any observations of asbestos containing materials represent the conditions at the specified locations and times of the site inspection survey only. The selection of sample areas was limited to accessible areas of the Music Building.

2.0 Lead-Based Paint XRF Testing of Painted Surfaces

Sebastian Moreno, CDPH Certified Lead Sampling Technician, of Bainbridge under the supervision Karlin Cisco, CDPH Certified Lead-based Paint Inspector Assessor, of Bainbridge performed the limited survey activities and collected the suspect lead-based paint XRF readings at Compton Community College – Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room located at 1111 East Artesia Boulevard, Compton, California 90221. The purpose of the survey was to identify any suspect lead-containing building materials that are scheduled to be impacted or disturbed during an upcoming/scheduled HVAC Upgrade Project at the subject property. The survey was performed on the date of August 15th, 2018.

Bainbridge conducted the limited lead-based paint survey of the subject rooms in compliance with the following Federal, State, and Local regulations:

- 24 CFR Part 35.80-35.98 and 35.3120(b) – U.S. Department of Housing and Urban Development (HUD)
- Toxic Substances Control Act (TOSCA) Section 406
- 40 CFR 745.103 – Environmental Protection Agency (EPA)
- Title 17 Section 35000 – Code of California Regulations
- Cal/OSHA Title 8 Section 1532.1 – California Occupational Safety and Health Administration
- Cal/OSHA Title 8 Section 5194 – California Occupational Safety and Health Administration

In compliance with Title 17, CCR, Division 1, Chapter 8 and 24 CFR Subtitle A, Part 35.125, Bainbridge filed the 8552 form as required to notify the California Department of Health Services the findings of the lead inspection/assessment conducted on the site.

Currently, the State of California, the U.S Department of Housing and Urban Development (HUD), and the Environmental Protection Agency (EPA) define lead-based paint as paint or other surface coating with lead content equal to or greater than 1.0 milligram per square centimeter (mg/cm^2), 0.5% by weight and/or 5,000 parts per million lead on the surface area. However, The County of Los Angeles Department of Health Services (DHS) defines Lead-Based Paint as any paint or surface coating with concentrations of lead at or above 0.7 milligram per square centimeter (mg/cm^2). Based on the location of the subject property in Los Angeles County the “abatement level” (threshold) setting of 0.7 mg/cm^2 was chosen for this inspection.

XRF Paint Readings: XRF measurements were collected. Bainbridge conducted the survey using a Heuresis PB200i Analyzer, X-ray Fluorescence (XRF) detector. All survey activities and XRF measurements were performed in accordance with the United States Department of Housing and Urban Development’s guidance document, entitled “Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing: Chapter 7 Lead-based paint inspection”.

2.1 Lead-Based Paint Findings

XRF Testing: Twenty-three (23) XRF readings were collected. The field data and results of XRF testing are included in Appendix B of this report.

The XRF Lead Sampling Logs are provided as an attachment to this survey/inspection report. These logs tabulate each individual test, sample taken throughout the subject rooms and describes the test location, the component to which the paint is applied, condition, color and lead content in milligrams per square centimeter and the result.

As a result of lead-based paint XRF testing, the following lead-containing building materials were identified:

MUSIC BUILDING – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room: Lead-based Paint

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
13	D	Music	Nat King Cole	Door Frame	Wood	Gray	1.1	Positive	150 Lin. Ft.
15	D	Music	Ramsey Lewis	Door Frame	Wood	Gray	1.0	Positive	See No. 13
17	D	Music	Little Richard	Door Frame	Wood	Gray	1.0	Positive	See No. 13

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered lead-containing materials. Prior to bid, contractor is responsible for field verification of those materials, their quantities and measurements.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities: those suspect building materials will be considered lead-containing materials. In this event, a California State Inspector/Assessor shall be retained to sample/test those materials to determine their lead content prior to authorization of additional abatement work.

2.2 Lead-Based Paint Recommendations

Based on the available information gathered during the performance of this survey and its conclusions, Bainbridge makes recommends the following:

- The removal of the identified lead-based paint components from the subject buildings prior to any renovation or demolition activities. Bainbridge recommends the utilization of a state licensed lead abatement contracting company to remove, transport and dispose of the identified lead-containing waste in according to applicable Federal and State regulations.

- The Occupational Safety and Health Administration (OSHA) promulgated legislation (29 CFR 1926.62 and 8 CCR1532.1) entitled "Lead Exposure in Construction Industry", requires that any job that may potentially expose workers to any concentration of lead (i.e., >0.01 mg/cm^2) be monitored by the employer to determine workers eight-hour time weighted average (TWA) exposure to lead.

2.3 Disclaimer and Limitations for Lead-Based Paint and Components

This document is prepared for the sole use of the CCCD and its authorized representatives and any agencies directly involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

The information in this report or portions thereof may be required to be included in notifications to employees, contractors or other visitors to the building. CCCD or its agents shall not use this report as a project specification or work plan for any of the work suggested or recommended in the report.

This report is based upon conditions and practices observed at the property and information made available to Bainbridge. This report does not identify all hazards or unsafe practices, nor does it indicate that other hazards or unsafe practices exist at the premises.

This inspection and assessment was planned, developed, and patterned after *HUD Guidelines Chapter 7 Lead-based paint inspection*. Bainbridge utilized state-of-the-art practices and techniques in accordance with regulatory standards while performing this inspection. Bainbridge's evaluation of the relative risk of exposure to lead identified during this inspection is based on conditions observed at the time of the inspection. Bainbridge cannot be responsible for changing conditions that may alter the relative exposure risk or for future changes in accepted methodology.

The conclusions and summary presented in this report are based on a review of pertinent regulations, and guidelines or requirements commonly followed by industry standards, data collected during the site inspection, and information provided by CCCD, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. Bainbridge believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties.

Any observations of lead-based paint and lead containing materials represent the conditions at the specified locations and times of the site inspection survey only. The selection of sample areas was limited to accessible areas of the subject rooms.

APPENDIX A

ASBESTOS FIELD DATA AND LABORATORY RESULTS

ASBESTOS BULK SAMPLE LOG

Client:	Compton Community College District	Bainbridge Project #:	18086508.10
Project Name:	Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room HVAC Upgrade Project	Inspector/Sampler:	S. Moreno
Address:	1111 East Artesia Boulevard Compton, California 90221	Date Sampled:	08/15/2018

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Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
1-Shingle	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	Throughout Music Building Roof	N/A	None Detected
1-Roofing	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
1- Felt	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
2-Shingle	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
2-Roofing	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
2-Felt	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
3-Shingle	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
3-Roofing	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
3- Felt	Music Building Roof	Roofing Material	Gray	Good	Non-Friable	See Above	N/A	None Detected
4	Music Building Roof	Curb Mastic	Black	Good	Non-Friable	Throughout Music Building Roof	N/A	None Detected
5	Music Building Roof	Curb Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Music Building - Nat King Cole, Little Richard and Ramsey Lewis Rooms

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
6	Music Building Roof	Curb Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected
7-Mastic	Music Building Roof	Pipe Mastic	Black	Good	Non-Friable	Throughout Music Building Roof	N/A	None Detected
7-Roofing	Music Building Roof	Pipe Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected
8	Music Building Roof	Pipe Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected
9-Mastic	Music Building Roof	Pipe Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected
9-Roofing	Music Building Roof	Pipe Mastic	Black	Good	Non-Friable	See Above	N/A	None Detected
10	Music Building Roof	Parapet Wall	Gray	Good	Non-Friable	Throughout Music Building Roof	N/A	None Detected
11	Music Building Roof	Parapet Wall	Gray	Good	Non-Friable	See Above	N/A	None Detected
12	Music Building Roof	Parapet Wall	Gray	Good	Non-Friable	See Above	N/A	None Detected
13	**Nat King Cole**	**Wall Panel**	**White**	**Good**	**Non-Friable**	**Nat King Cole, Ramsey Lewis, and Little Richard Rooms**	**1,400 Sq. Ft.**	**12% Chrysotile**
14	**Ramsey Lewis**	**Wall Panel**	**White**	**Good**	**Non-Friable**	**See Above**	**Included Above**	**13% Chrysotile**
15	**Little Richard**	**Wall Panel**	**White**	**Good**	**Non-Friable**	**See Above**	**Included Above**	**13% Chrysotile**
16	Nat King Cole	Sound Proofing	Brown	Good	Non-Friable	Sound Proofing throughout Music Building	N/A	None Detected
17	Ramsey Lewis	Sound Proofing	Brown	Good	Non-Friable	See Above	N/A	None Detected

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Music Building - Nat King Cole, Little Richard and Ramsey Lewis Rooms

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
18	Little Richard	Sound Proofing	Brown	Good	Non-Friable	See Above	N/A	None Detected
19	Nat King Cole	Drywall	White	Good	Non-Friable	Throughout Music Building	N/A	None Detected
20	Ramsey Lewis	Drywall	White	Good	Non-Friable	See Above	N/A	None Detected
21	Little Richard	Drywall	White	Good	Non-Friable	See Above	N/A	None Detected
22	Nat King Cole	12X12 Pinhole Ceiling Tile	White	Good	Non-Friable	Throughout Music Building	N/A	None Detected
23	Little Richard	12X12 Pinhole Ceiling Tile	White	Good	Non-Friable	See Above	N/A	None Detected
24	Stevie Wonder	12X12 Pinhole Ceiling Tile	White	Good	Non-Friable	See Above	N/A	None Detected
25-Drywall	Little Richard	Drywall w/ Hockey Puck Mastic	White/ Brown	Good	Non-Friable	Throughout Music Building	N/A	None Detected
25-Mastic	Little Richard	Drywall w/ Hockey Puck Mastic	White/ Brown	Good	Non-Friable	See Above	N/A	None Detected
26-Drywall	Ramsey Lewis	Drywall w/ Hockey Puck Mastic	White/ Brown	Good	Non-Friable	See Above	N/A	None Detected
26-Mastic	Ramsey Lewis	Drywall w/ Hockey Puck Mastic	Brown	Good	Non-Friable	See Above	N/A	None Detected
27-Drywall	Stevie Wonder	Drywall w/ Hockey Puck Mastic	White/ Brown	Good	Non-Friable	See Above	N/A	None Detected
27-Mastic	Stevie Wonder	Drywall w/ Hockey Puck Mastic	White/ Brown	Good	Non-Friable	See Above	N/A	None Detected
28	Stevie Wonder	Carpet Glue	Yellow	Good	Non-Friable	Throughout Music Building	N/A	None Detected
29	Ramsey Lewis	Carpet Glue	Yellow	Good	Non-Friable	See Above	N/A	None Detected

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Music Building - Nat King Cole, Little Richard and Ramsey Lewis Rooms

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
30	Little Richard	Carpet Glue	Yellow	Good	Non-Friable	See Above	N/A	None Detected
34	Music Building Attic	Vapor Barrier	Black	Good	Non-Friable	Throughout Music Building Attic	N/A	None Detected
35	Music Building Attic	Vapor Barrier	Black	Good	Non-Friable	See Above	N/A	None Detected
36	Music Building Attic	Vapor Barrier	Black	Good	Non-Friable	See Above	N/A	None Detected
37	Music Building Attic	Plaster	White	Good	Non-Friable	Throughout Music Building	N/A	None Detected
38	Music Building Attic	Plaster	White	Good	Non-Friable	See Above	N/A	None Detected
39-Plaster 1	Music Building Attic	Plaster	White	Good	Non-Friable	See Above	N/A	None Detected
39-Plaster 2	Music Building Attic	Plaster	White	Good	Non-Friable	See Above	N/A	None Detected
40	Music Building Attic	Drywall	White	Good	Non-Friable	Throughout Music Building Attic	N/A	None Detected
41	Music Building Attic	Drywall	White	Good	Non-Friable	See Above	N/A	None Detected
42	Music Building Attic	Drywall	White	Good	Non-Friable	See Above	N/A	None Detected

-End of Report-

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / gardengrovelab@latesting.com

LA Testing Order:	331816656
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Attention:	Karlin Cisco	**Phone:**	(714) 403-7191
	Bainbridge Environmental Consultants	**Fax:**	(714) 247-0025
	1322 Bell Avenue	**Received Date:**	08/15/2018 4:45 PM
	Suite 1N	**Analysis Date:**	08/18/2018
	Tustin, CA 92780	**Collected Date:**	08/15/2018
Project:	CCCD Music Building Nate King Cole, Little Richard and Ramsey Lewis Room HVAC		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1-Shingle *331816656-0001*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	White/Black Fibrous Heterogeneous	13% Glass	87% Non-fibrous (Other)	None Detected
1-Roofing *331816656-0001A*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	Black Fibrous Heterogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
1-Felt *331816656-0001B*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
2-Shingle *331816656-0002*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	White/Black Fibrous Heterogeneous	13% Glass	87% Non-fibrous (Other)	None Detected
2-Roofing *331816656-0002A*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	Black Fibrous Heterogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
2-Felt *331816656-0002B*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
3-Shingle *331816656-0003*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	White/Black Fibrous Heterogeneous	13% Glass	87% Non-fibrous (Other)	None Detected
3-Roofing *331816656-0003A*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	Black Fibrous Heterogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
3-Felt *331816656-0003B*	Music Bldg Roof - Roofing Material / Roofing Material to Music Bldg Roof	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
4 *331816656-0004*	Music Bldg Roof - Curb Mastic / Curb Mastic to Music Bldg Roof	White/Black Fibrous Heterogeneous	4% Cellulose 3% Glass	93% Non-fibrous (Other)	None Detected
5 *331816656-0005*	Music Bldg Roof - Curb Mastic / Curb Mastic to Music Bldg Roof	White/Black Fibrous Heterogeneous	4% Cellulose 3% Glass	93% Non-fibrous (Other)	None Detected
6 *331816656-0006*	Music Bldg Roof - Curb Mastic / Curb Mastic to Music Bldg Roof	White/Black Fibrous Heterogeneous	5% Cellulose 3% Glass	92% Non-fibrous (Other)	None Detected

Report amended: 08/23/2018 15:53:59 Replaces initial report from: 08/18/2018 19:29:02 Reason Code: Client-Change to Project

LA Testing

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Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / gardengrovelab@latesting.com

LA Testing Order:	331816656
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
7-Mastic *331816656-0007*	Music Bldg Roof - Pipe Mastic / Pipe Mastic to Music Bldg Roof	White/Black Fibrous Heterogeneous	6% Cellulose	94% Non-fibrous (Other)	None Detected
7-Roofing *331816656-0007A*	Music Bldg Roof - Pipe Mastic / Pipe Mastic to Music Bldg Roof	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8 *331816656-0008*	Music Bldg Roof - Pipe Mastic / Pipe Mastic to Music Bldg Roof	White/Black Fibrous Heterogeneous	6% Cellulose	94% Non-fibrous (Other)	None Detected
9-Mastic *331816656-0009*	Music Bldg Roof - Pipe Mastic / Pipe Mastic to Music Bldg Roof	White/Black Fibrous Heterogeneous	6% Cellulose	94% Non-fibrous (Other)	None Detected
9-Roofing *331816656-0009A*	Music Bldg Roof - Pipe Mastic / Pipe Mastic to Music Bldg Roof	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10 *331816656-0010*	Music Bldg Roof - Parapet Wall / Parapet Wall to Music Bldg Roof	White/Black Fibrous Heterogeneous	12% Glass	88% Non-fibrous (Other)	None Detected
11 *331816656-0011*	Music Bldg Roof - Parapet Wall / Parapet Wall to Music Bldg Roof	White/Black Fibrous Heterogeneous	12% Glass	88% Non-fibrous (Other)	None Detected
12 *331816656-0012*	Music Bldg Roof - Parapet Wall / Parapet Wall to Music Bldg Roof	White/Black Fibrous Heterogeneous	12% Glass	88% Non-fibrous (Other)	None Detected
13 *331816656-0013*	Music Bldg Nat King Cole - Wall Panel / Wall Panels to Music Bldg	Gray/White Fibrous Homogeneous		88% Non-fibrous (Other)	12% Chrysotile
14 *331816656-0014*	Music Bldg Ramsey Lewis - Wall Panel / Wall Panels to Music Bldg	Gray/White Fibrous Homogeneous		87% Non-fibrous (Other)	13% Chrysotile
15 *331816656-0015*	Music Bldg Little Richard - Wall Panel / Wall Panels to Music Bldg	Gray/White Fibrous Homogeneous		87% Non-fibrous (Other)	13% Chrysotile
16 *331816656-0016*	Music Bldg Nat King Cole - Sound Proofing / Sound Proofing to Music Bldg	Brown Fibrous Homogeneous	2% Cellulose 35% Min. Wool 50% Glass	13% Non-fibrous (Other)	None Detected
17 *331816656-0017*	Music Bldg Ramsey Lewis - Sound Proofing / Sound Proofing to Music Bldg	Brown Fibrous Homogeneous	2% Cellulose 35% Min. Wool 50% Glass	13% Non-fibrous (Other)	None Detected
18 *331816656-0018*	Music Bldg Little Richard - Sound Proofing / Sound Proofing to Music Bldg	Brown Fibrous Homogeneous	2% Cellulose 35% Min. Wool 50% Glass	13% Non-fibrous (Other)	None Detected

Report amended: 08/23/2018 15:53:59 Replaces initial report from: 08/18/2018 19:29:02 Reason Code: Client-Change to Project

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LA Testing Order:	331816656
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
19 *331816656-0019*	Music Bldg Nat King Cole - Drywall / Drywall to Music Bldg	White Fibrous Homogeneous	2% Cellulose 5% Min. Wool 10% Glass	83% Non-fibrous (Other)	None Detected
20 *331816656-0020*	Music Bldg Ramsey Lewis - Drywall / Drywall to Music Bldg	White Fibrous Homogeneous	2% Cellulose 5% Min. Wool 10% Glass	83% Non-fibrous (Other)	None Detected
21 *331816656-0021*	Music Bldg Little Richard - Drywall / Drywall to Music Bldg	White Fibrous Homogeneous	2% Cellulose 5% Min. Wool 10% Glass	83% Non-fibrous (Other)	None Detected
22 *331816656-0022*	Music Bldg Nat King Cole - 12 x 12 Pinhole Ceiling Tile / 12 x 12 Pinhole Ceiling Tile to Music Bldg	Brown/White Fibrous Heterogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
23 *331816656-0023*	Music Bldg Little Richard - 12 x 12 Pinhole Ceiling Tile / 12 x 12 Pinhole Ceiling Tile to Music Bldg	Brown/White Fibrous Heterogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
24 *331816656-0024*	Music Bldg Stevie Wonder - 12 x 12 Pinhole Ceiling Tile / 12 x 12 Pinhole Ceiling Tile to Music Bldg	Brown/White Fibrous Heterogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
25-Drywall *331816656-0025*	Music Bldg Little Richard - Drywall w/Hockey Puck / Drywall w/Hockey Puck to Music Bldg	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	88% Non-fibrous (Other)	None Detected
25-Mastic *331816656-0025A*	Music Bldg Little Richard - Drywall w/Hockey Puck / Drywall w/Hockey Puck to Music Bldg	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-Drywall *331816656-0026*	Music Bldg Ramsey Lewis - Drywall w/Hockey Puck / Drywall w/Hockey Puck to Music Bldg	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	88% Non-fibrous (Other)	None Detected
26-Mastic *331816656-0026A*	Music Bldg Ramsey Lewis - Drywall w/Hockey Puck / Drywall w/Hockey Puck to Music Bldg	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27-Drywall *331816656-0027*	Music Bldg Stevie Wonder - Drywall w/Hockey Puck / Drywall w/Hockey Puck to Music Bldg	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	88% Non-fibrous (Other)	None Detected
27-Mastic *331816656-0027A*	Music Bldg Stevie Wonder - Drywall w/Hockey Puck / Drywall w/Hockey Puck to Music Bldg	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28 *331816656-0028*	Music Bldg Stevie Wonder - Carpet Glue / Carpet Glue to Music Bldg	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report amended: 08/23/2018 15:53:59 Replaces initial report from: 08/18/2018 19:29:02 Reason Code: Client-Change to Project

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / gardengrovelab@latesting.com

LA Testing Order:	331816656
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
29 *331816656-0029*	Music Bldg Ramsey Lewis - Carpet Glue / Carpet Glue to Music Bldg	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30 *331816656-0030*	Music Bldg Little Richard - Carpet Glue / Carpet Glue to Music Bldg	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34 *331816656-0034*	Music Bldg - Attic - Vapor Barrier / Vapor Barrier to Music Bldg Attic	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
35 *331816656-0035*	Music Bldg - Attic - Vapor Barrier / Vapor Barrier to Music Bldg Attic	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
36 *331816656-0036*	Music Bldg - Attic - Vapor Barrier / Vapor Barrier to Music Bldg Attic	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
37 *331816656-0037*	Music Bldg - Attic - Plaster / Plaster to Music Bldg Attic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
38 *331816656-0038*	Music Bldg - Attic - Plaster / Plaster to Music Bldg Attic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39-Plaster 1 *331816656-0039*	Music Bldg - Attic - Plaster / Plaster to Music Bldg Attic	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39-Plaster 2 *331816656-0039A*	Music Bldg - Attic - Plaster / Plaster to Music Bldg Attic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
40 *331816656-0040*	Music Bldg - Attic - Drywall / Drywall to Music Bldg Attic	Brown/White Fibrous Heterogeneous	8% Cellulose 3% Glass	89% Non-fibrous (Other)	None Detected
41 *331816656-0041*	Music Bldg - Attic - Drywall / Drywall to Music Bldg Attic	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	88% Non-fibrous (Other)	None Detected
42 *331816656-0042*	Music Bldg - Attic - Drywall / Drywall to Music Bldg Attic	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	88% Non-fibrous (Other)	None Detected

Analyst(s)

Carolynn Tom (29)

Mindy Le (22)

Michael DeCavallas, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by LA Testing Huntington Beach, CA NVLAP Lab Code 101384-0, CA ELAP 1406

Report amended: 08/23/2018 15:53:59 Replaces initial report from: 08/18/2018 19:29:02 Reason Code: Client-Change to Project

OrderID: 331816656

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 331816656#

PHONE:
FAX:

Company Name : Bainbridge Environmental Consultants, Inc.		**EMSL Customer ID:**	
Street: 1322 Bell Avenue, Suite 1N		**City:** Tustin	**State/Province:** CA
Zip/Postal Code: 92780	**Country:** U.S.	**Telephone #:** 714-247-0024	**Fax #:** 714-247-0025
Report To (Name): Karlin Cisco		**Please Provide Results:** ☐ Fax ☑ Email	
Email Address: kcisco@bainbridge-env.com		**Purchase Order:**	
Project Name/Number: CCCD Music Building Nate King Cole, Little Richard and Ramsey Lewis Room HVAC		**EMSL Project ID** (*Internal Use Only*):	
U.S. State Samples Taken: California		**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt	

EMSL-Bill to: ☑ Same ☐ Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☑ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air ☐ Check if samples are from NY
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☑ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NYS 198.8 SOF-V
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ 4-4.5hr TAT (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite*
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ TEM Qual. via Filtration Technique
- ☐ TEM Qual. via Drop-Mount Technique

*Can not accept New York State Loose Fill Vermiculite Samples

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** | **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: S. MORENO | **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	PLEASE SEE		
	ATTACHED LOG		

Client Sample # (s): - 42 (SM) **Total # of Samples:** 42 (SM)

Relinquished (Client): S. MORENO **Date:** 08/15/2018 **Time:** 1645

Received (Lab): emendoza (WS) **Date:** 8/15/18 **Time:** 4:45PM

Comments/Special Instructions: PLEASE CALL WITH ANY QUESTIONS/CONCERNS. THANK YOU.

Controlled Document – Asbestos COC – R9 – 10/30/2014

Page 1 of 4 (SM) pages

Per Karlin; 72 Hr Okay. CM 8/16

331816656#

ASBESTOS BULK SAMPLE LOG

OrderID: 331816656

Client: Compton Community College District
Project Name: Music Building – Nate King Cole Room, Little Richard Room and Ramsey Lewis Room HVAC Upgrade Project
Address: 1111 East Artesia Boulevard, Compton, California 90221

Bainbridge Project #: 18086508.10
Inspector/Sampler: S. MORENO
Date Sampled: 08/15/2018

BAINBRIDGE Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
1	MUSIC BLDG ROOF	ROOFING MATERIAL	GREY	GOOD	NON FRIABLE	ROOFING MATERIAL T/O MUSIC BLDG ROOF		
2	"	"	"	"	"	"	1/A	
3	"	"	"	"	"	"	1/A	
4		CURB MASTIC	BLACK			CURB MASTIC T/O MUSIC BLDG ROOF		
5	"	"	"			"	1/A	
6	"	"	"			"	1/A	
7		PIPE MASTIC	"			PIPE MASTIC T/O MUSIC BLDG ROOF		
8	"	"	"			"	1/A	
9	"	"	"			"	1/A	
10		PARAPET WALL	GREY			PARAPET WALL T/O MUSIC BLDG ROOF		
11	"	"	"			"	1/A	
12	"	"	"			"	1/A	
13	NAT KING COLE	WALL PANEL	WHITE			WALL PANELS T/O MUSIC BLDG	1/A	
14	RAMSEY LEWIS	"	"			"	1/A	
15	LITTLE RICHARD	"	"			"	1/A	

6226 Whittier Boulevard, Suite B
Los Angeles, CA 90022
Tel (213) 921-4884
Fax (714) 247-0025

3318166656#

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Music Building Nate King Cole, Little Richard and Ramsey Lewis Rooms

BAINBRIDGE Environmental Consultants

OrderID: 331816656

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
16	MUSIC BLDG NAT KING COLE	SOUNDPROOFING	BROWN	GOOD	FRIABLE	SOUNDPROOFING T/O MUSIC BLDG	3600 ☑	
17	RAMSEY LEWIS	"	"	"	"	"	I/A	
18	LITTLE RICHARD	"	"	"	"	"	I/A	
19	NAT KING COLE	DRYWALL	WHITE	"	NONFRIABLE	DRYWALL T/O MUSIC BLDG	3600 ☑	
20	RAMSEY LEWIS	"	"	"	"	"	I/A	
21	LITTLE RICHARD	"	"	"	"	"	I/A	
22	NAT KING COLE	12x12 PINHOLE CEILING TILE	WHITE	GOOD	FRIABLE	12x12 PINHOLE CEILING TILE T/O MUSIC BLDG	1000 ☑	
23	LITTLE RICHARD	"	"	"	"	"	I/A	
24	STEVIE WONDER	"	"	"	"	"	I/A	
25	LITTLE RICHARD	DRYWALL W/HOCKEY PUCK	WHITE/ BROWN	"	NTN FRIABLE	DRYWALL W/HOCKEY PUCK T/O MUSIC BLDG		
26	RAMSEY LEWIS	"	"	"	"	"	I/A	
27	STEVIE WONDER	"	"	"	"	"	I/A	
28	STEVIE WONDER	CARPET GLUE	YELLOW	GOOD	NONFRIABLE	CARPET T/O MUSIC BLDG		
29	RAMSEY LEWIS	"	"	"	"	"	I/A	
30	LITTLE RICHARD	"	"	"	"	"	I/A	
31	ISAAC HAYES	RED W/WHITE STREAKS FLOOR TILE W/ MASTIC	RED W/WHITE STREAKS	"	"	RED FLOOR TILE W/ MASTIC T/O ISAAC HAYES ROOM	100 ☑	
32	"	"	"	"	"	"	I/A	
33	"	"	"	"	"	"	I/A	

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331816656#

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Cafeteria/Kitchen Building – 1111 East Artesia Boulevard, CA 90221

BAINBRIDGE Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
34	MUSIC BLDG ATTIC	VAPOR BARRIER	BLACK	GOOD	NON FRIABLE	VAPOR BARRIER T/O MUSIC BLDG ATTIC		
35	"	"				"	I/A	
36	"	"				"	I/A	
37		PLASTER	WHITE			PLASTER T/O MUSIC BLDG ATTIC		
38		"				"	I/A	
39		"				"	I/A	
40		DRYWALL				DRYWALL T/O MUSIC BLDG ATTIC		
41		"				"	I/A	
42		"				"	I/A	
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								

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APPENDIX B

LEAD-BASED PAINT FIELD DATA AND ANALYTICAL RESULTS

XRF Lead-Based Paint Sampling Log

Client: Compton Community College District
Music Building – Nat King Cole Room,
Little Richard Room and Ramsey Lewis Room
Site: HVAC Upgrade Project
Address: 1111 East Artesia Boulevard
Compton, California 90221

Client Project #: N/A
Bainbridge Project #: 18086508.10
Inspector/Sampler: S. Moreno
Date Sampled: 08/15/2018

BAINBRIDGE
Environmental Consultants

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm²	Positive Negative	Approx. Quantity
1	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**1.0**	**Positive**	**Time: 1141**
2	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**1.0**	**Positive**	**Time: 1141**
3	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**1.0**	**Positive**	**Time: 1142**
4	B	Music	Roof	Roof	Wood	Gray	0.0	Negative	N/A
5	B	Music	Roof	Curb	Wood	Gray	0.0	Negative	N/A
6	A	Music	Roof	Parapet	Wood	Gray	0.0	Negative	N/A
7	B	Music	Roof	Flashing	Metal	Red	0.0	Negative	N/A
8	D	Music	Roof	Wall	Plaster	White	0.0	Negative	N/A
9	C	Music	Nat King Cole	Wall	Drywall	White	0.0	Negative	N/A
10	A	Music	Ramsey Lewis	Wall	Drywall	White	0.1	Negative	N/A
11	D	Music	Stevie Wonder	Wall	Drywall	White	0.1	Negative	N/A
12	D	Music	Nat King Cole	Door	Wood	Gray	0.1	Negative	N/A
13	**D**	**Music**	**Nat King Cole**	**Door Frame**	**Wood**	**Gray**	**1.1**	**Positive**	**150 Lin. Ft.**
14	D	Music	Ramsey Lewis	Door	Wood	Gray	0.0	Negative	N/A

XRF Lead-Based Paint Sampling Log

Compton Community College District – Music Building Nat King Cole, Little Richard and Ramsey Lewis Rooms

BAINBRIDGE
Environmental Consultants

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
15	**D**	**Music**	**Ramsey Lewis**	**Door Frame**	**Wood**	**Gray**	**1.0**	**Positive**	**See No. 13**
16	D	Music	Little Richard	Door	Wood	Gray	0.0	Negative	150 LNFT
17	**D**	**Music**	**Little Richard**	**Door Frame**	**Wood**	**Gray**	**1.0**	**Positive**	**See No. 13**
18	A	Music	Nat King Cole	Ceiling	Wood	White	0.1	Negative	N/A
19	A	Music	Stevie Wonder	Ceiling	Wood	White	0.0	Negative	N/A
20	D	Music	Ramsey Lewis	Ceiling	Wood	White	0.1	Negative	N/A
21	**N/A**	**N/A**	**Calibration**	**Calibration**	**N/A**	**Green**	**1.0**	**Positive**	**Time: 1415**
22	**N/A**	**N/A**	**Calibration**	**Calibration**	**N/A**	**Green**	**1.0**	**Positive**	**Time: 1415**
23	**N/A**	**N/A**	**Calibration**	**Calibration**	**N/A**	**Green**	**0.7**	**Positive**	**Time: 1416**

-End of Report-

APPENDIX C

ASBESTOS AND LEAD INSPECTOR'S STATE CERTIFICATIONS


State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant
Karlin P Cisco
Name
Certification No. 16-5626
Expires on 03/15/19
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.


State of California Department of Public Health
Lead-Related Construction Certificate
Certificate Type
Expiration Date
Inspector/Assessor
02/26/2019
Karlin P. Cisco
ID #: 18300

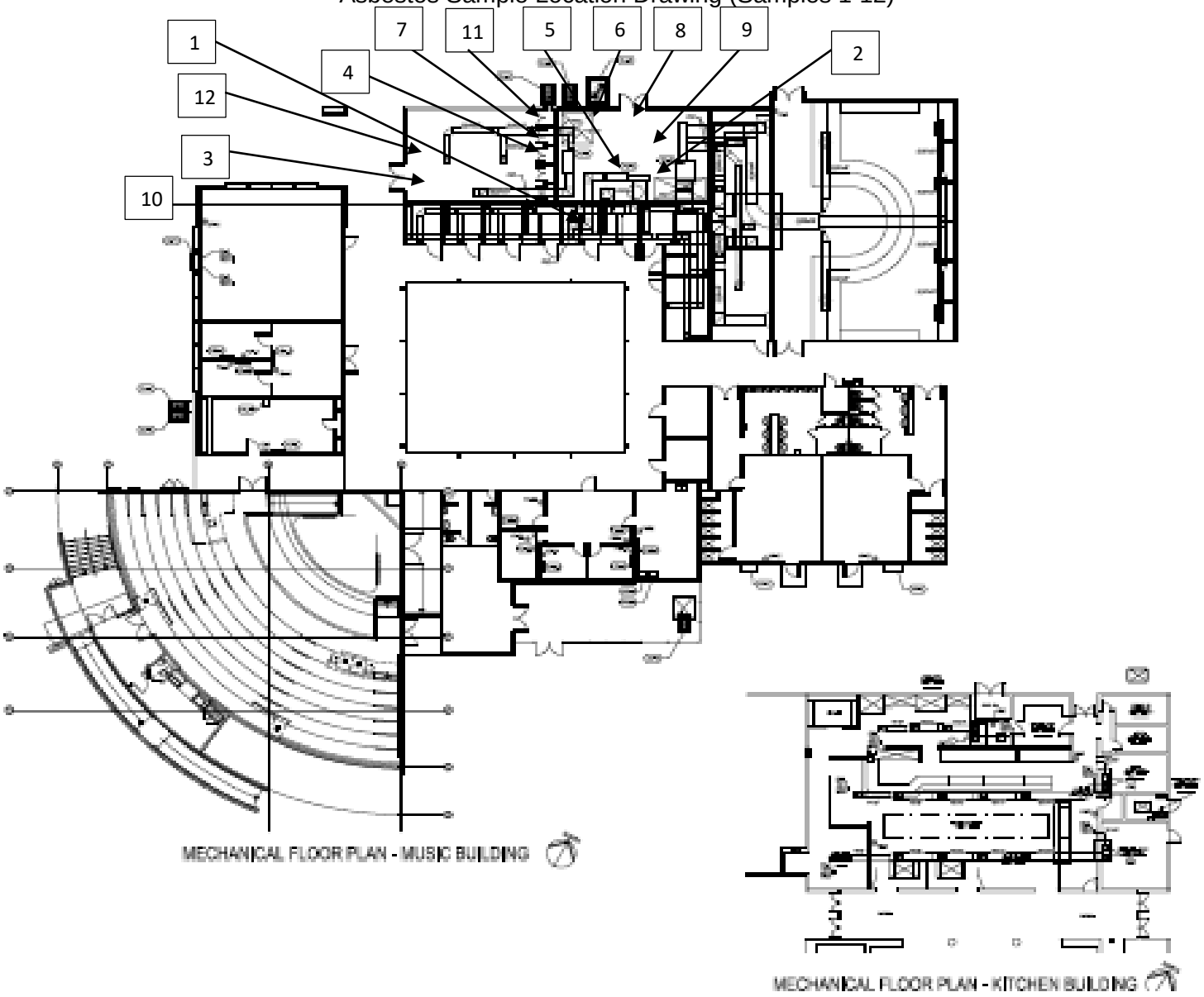

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician
Sebastian C Moreno
Name
Certification No. 17-6006
Expires on 08/16/19
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.


State of California Department of Public Health
Lead-Related Construction Certificate
Certificate Type
Expiration Date
Sampling Technician
01/09/2019
Sebastian C. Moreno
ID #: 30769

APPENDIX D

ASBESTOS AND LEAD SAMPLE LOCATION DRAWINGS

Compton Community College District
Compton Community College – Music Building – HVAC Upgrade Project
Asbestos Sample Location Drawing (Samples 1-12)



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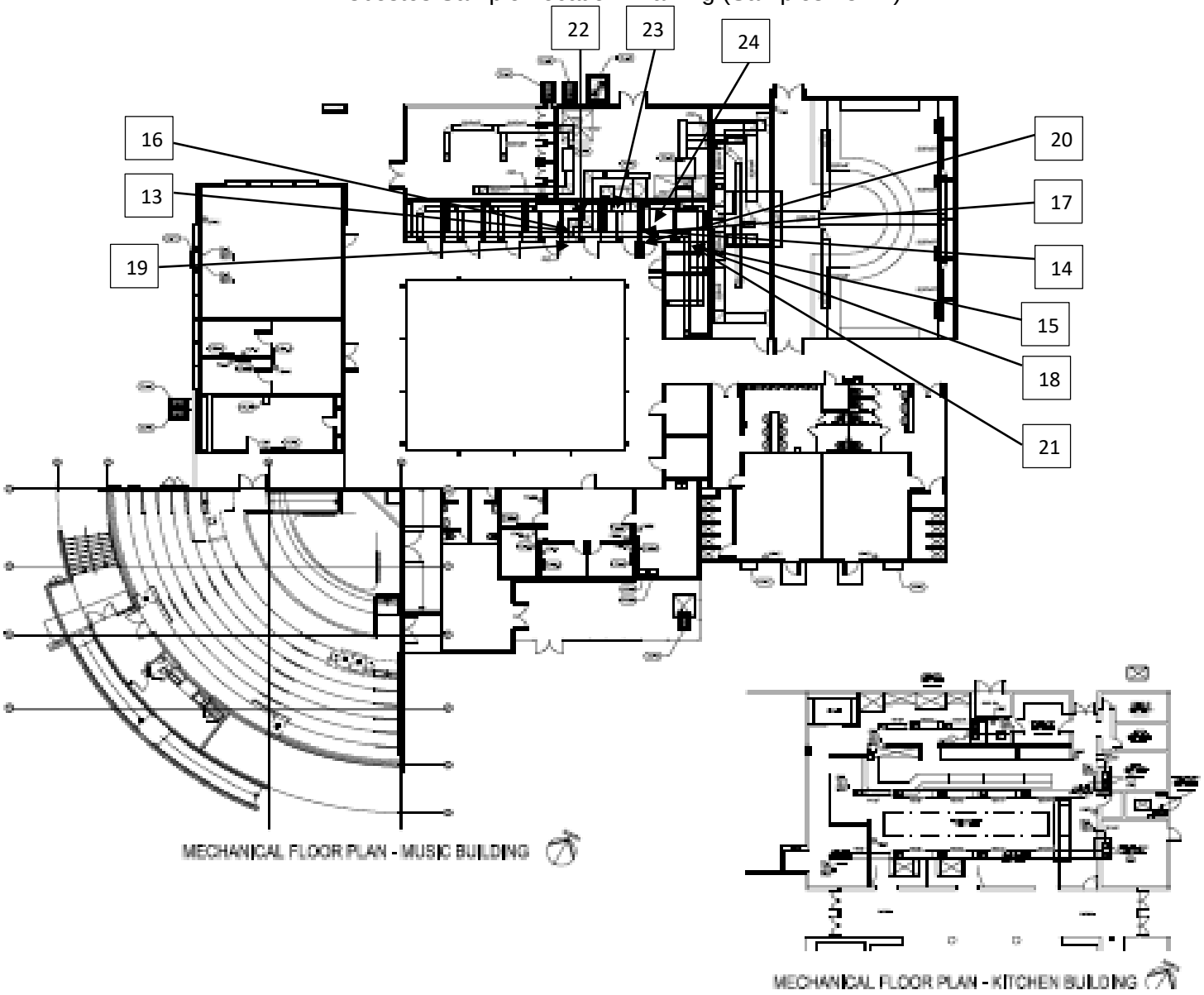
Compton Community College District
Compton Community College – Music Building – HVAC Upgrade Project
Asbestos Sample Location Drawing (Samples 13-24)



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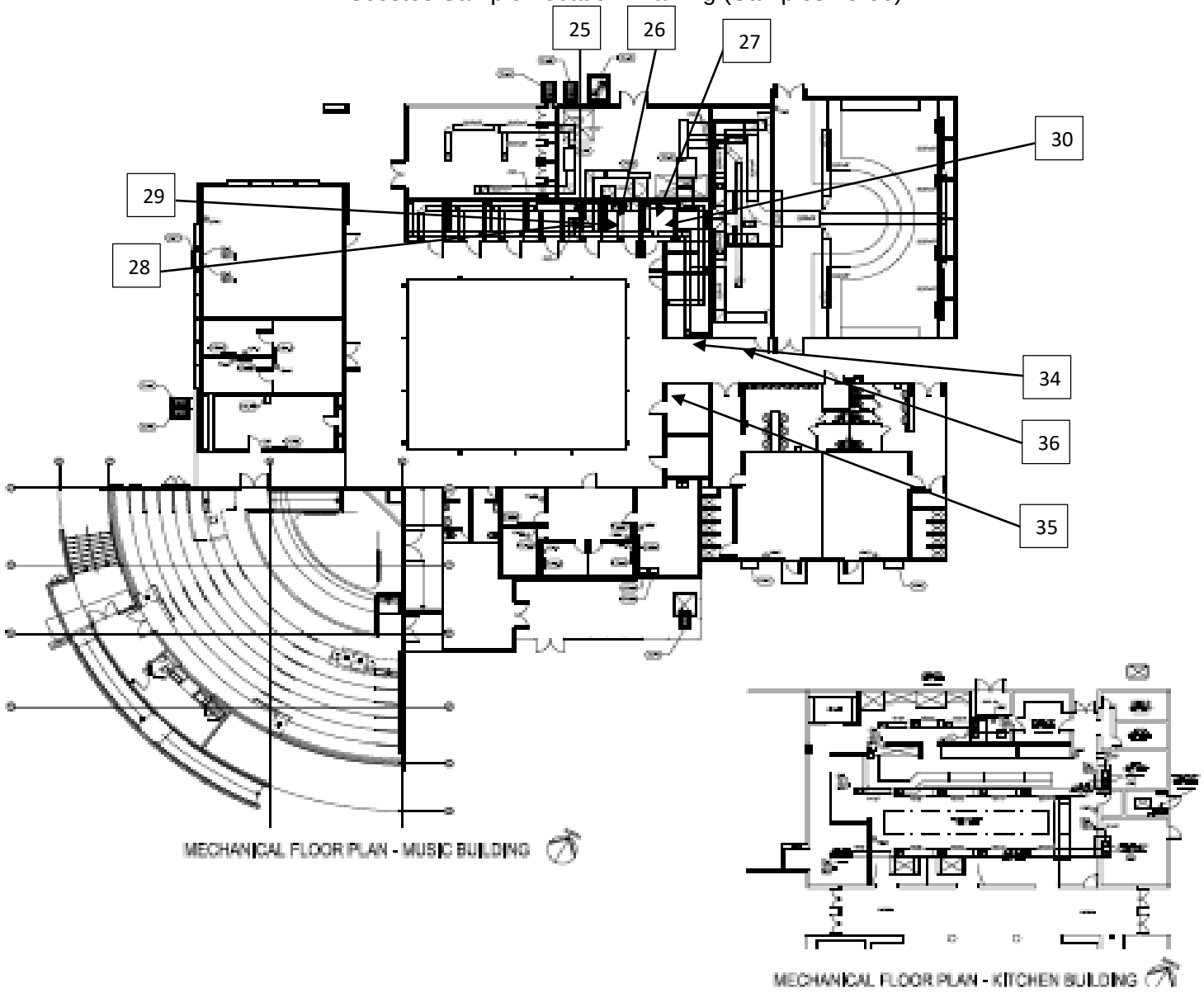
Compton Community College District
Compton Community College – Music Building – HVAC Upgrade Project
Asbestos Sample Location Drawing (Samples 25-36)



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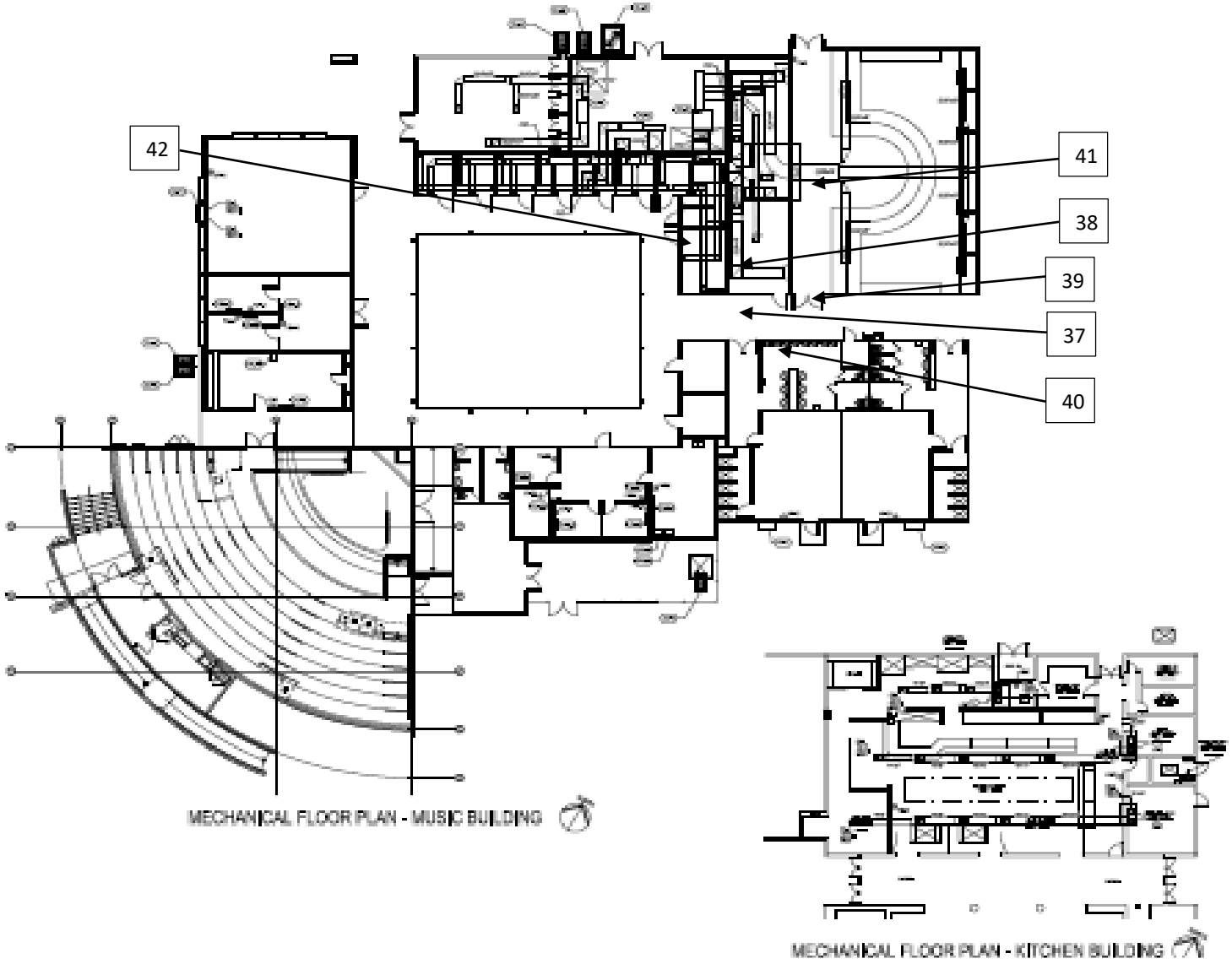
Compton Community College District
Compton Community College – Music Building– HVAC Upgrade Project
Asbestos Sample Location Drawing (Samples 37-42)



BAINBRIDGE
Environmental Consultants

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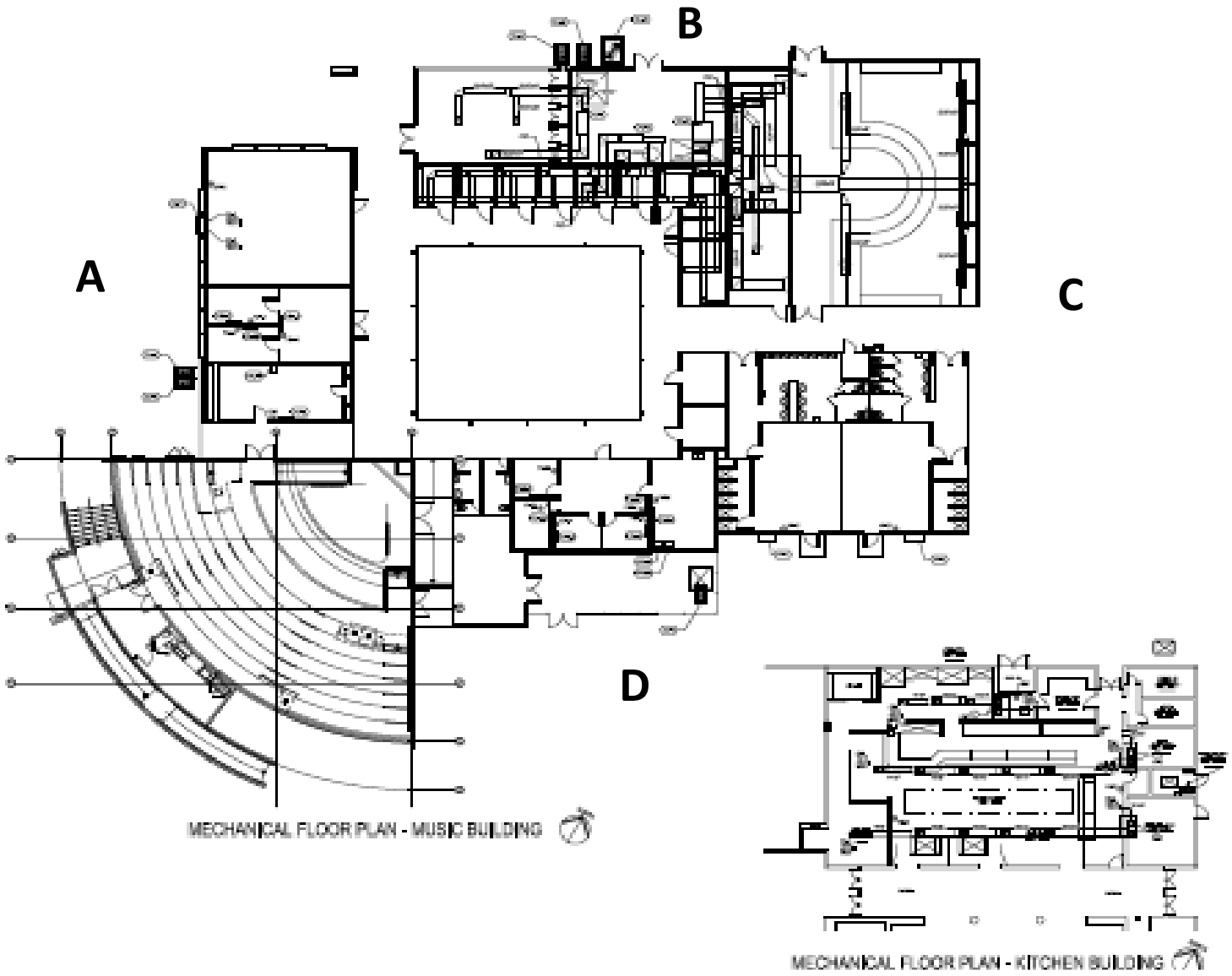
Compton Community College District
Compton Community College – Music Building – HVAC Upgrade Project
Lead-Based Paint XRF Sample Location Drawing – For Reference Only



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Environmental Consultants

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APPENDIX E

COPY OF CDHP LEAD HAZARD EVALUATION FORM 8552

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation August 15, 2018

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
1111 E. Artesia Boulevard	Compton	Los Angeles	90221

Construction date (year) of structure	Type of structure		Children living in structure?	
Circa 1950	☐ Multi-unit building	☑ School or daycare	☐ Yes	☑ No
	☐ Single family dwelling	☐ Other_____	☐ Don't Know	

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
Compton Community College District	310-200-6900

Address [number, street, apartment (if applicable)]	City	State	Zip Code
1111 E. Artesia Boulevard	Compton	California	90221

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other_____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Sebastian Moreno	714-213-247-0025

Address [number, street, apartment (if applicable)]	City	State	Zip Code
6226 Whittier Boulevard	Los Angeles	California	90022

CDPH certification number	Signature	Date
S. Moreno #30769		August 22, 2018

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Not applicable

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

LIMITED ASBESTOS AND LEAD-BASED PAINT XRF SURVEY REPORT

For:

COMPTON COMMUNITY COLLEGE
MUSIC BUILDING
STORAGE ROOM – HVAC UPGRADE PROJECT

Presented To:

COMPTON COMMUNITY COLLEGE DISTRICT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

Presented By:

BAINBRIDGE
Environmental Consultants

6226 Whittier Boulevard, Suite B
Los Angeles, California 90022
Phone: 213-921-4884
Fax: 714-247-0025

Bainbridge Project #: 18086508.10
August 28, 2018

August 28, 2018

Ms. Linda Owens
Director of Facilities, Planning and Operations
Compton Community College District
1111 East Artesia Boulevard
Compton, California 90221

BAINBRIDGE
Environmental Consultants

RE: Phase 1 – Limited Asbestos and Lead-Based Paint XRF Survey Report for Compton Community College – Music Building – Storage Room – HVAC Upgrade Project located at 1111 East Artesia Boulevard, Compton, California 90221.

Dear Ms. Owens:

At the request of Compton Community College District (CCCD), Bainbridge Environmental Consultants, Inc. (Bainbridge) conducted a limited asbestos and lead-based paint XRF survey for the upcoming/scheduled HVAC Upgrade at the Music Building – Storage Room located at the above-mentioned address.

This document has been prepared for the sole use of CCCD, their authorized agents, and any State, or local agencies involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

Thank you for the opportunity to be of service. Please do not hesitate to call us with any questions. We look forward to assisting you in the future.

Sincerely,
Bainbridge Environmental Consultants, Inc.

Karlin Cisco
Director of Operations
CAC # 16-5626/CDPH # 18300

Bainbridge Project #: 18086508.10
KC/bb

TABLE OF CONTENTS

Section

Appendices

1.0 Asbestos Survey/Investigation

Michael Capriano, DOSH Certified Asbestos Consultant (CAC), of Bainbridge, performed the limited survey activities and collected the suspect asbestos-containing building material bulk samples for laboratory analysis at Compton Community College – Music Building – Storage Room located at 1111 East Artesia Boulevard, Compton, California 90221. The purpose of the survey was to identify any suspect asbestos-containing materials that are scheduled to be impacted or disturbed during an upcoming/scheduled HVAC Upgrade Project at the subject property. The survey was performed on the date of August 27th, 2018 and consisted of a walk-through of the subject storage room and collection of suspect asbestos-containing building materials. This report reviews and summarizes the findings outlined in the attached asbestos bulk sample log and laboratory analysis report.

During this inspection, several criteria including bulk sampling were used to properly assess areas investigated. Visual and tactile assessments of suspect asbestos-containing building materials provided the basis for these criteria and allowed the inspector to group the materials into homogenous areas.

Bainbridge conducted the limited asbestos bulk sampling of the subject storage room in compliance with the following Federal, State, and Local regulations:

Code of Federal Regulations (CFR):

- 40 CFR Part 763 - Asbestos Containing Materials In Schools.
- 29 CFR 1910.1001 - Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite
- 29 CFR 1910.1101 - Asbestos
- 29 CFR 1910.1200 - Hazard Communication
- 29 CFR 1910.132 - General Requirements – Personal Protective Equipment
- 29 CFR 1910.134 - Respiratory Protection
- 29 CFR 1910.145 - Specifications for Accident Prevention, Signs and Tags
- 29 CFR 1910.1101 - Asbestos Standard for construction Industry
- 40 CFR 61 - Sub-part A General Conditions
- 40 CFR 61 - Sub-part M National Emission Standards for Asbestos
- 40 CFR 61.152 - Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations.

U.S. Environmental Protection Agency (EPA):

- Publication No. 560/5-85-024 - Guidance for Controlling Asbestos-Containing Materials in Buildings.

Title 8 California Code of Regulations (CCR):

- Section 1529 - Asbestos
- Section 5208 - General Industry Safety Orders
- Section 5144 - Respirator Regulations

Southern California Air Quality Management (SCAQMD):

- Rule 1403- Asbestos Emissions from Demolition/Renovation Activities.

1.1 Asbestos Findings

A total of six (6) bulk samples were collected for laboratory analysis. Some of those samples were separated [by the laboratory] by individual layers to determine a more accurate analysis. Therefore, the total number of the samples analyzed was twelve (12). These samples were submitted under the chain of custody protocol to LA Testing, located in Huntington Beach, California 92649. LA Testing is certified with the NVLAP registration (code: 101384-0) and approved for asbestos bulk sample analysis in the state of California.

The sample analysis was performed by EPA Polarized Light Microscopy (PLM) coupled with dispersion staining, method 600/R-93/116, July 1993. All PLM analyses are derived from a calibrated visual estimate unless otherwise noted.

- **None of the materials sampled were determined to contain asbestos greater than one-tenth of 1% (ACM >.1%)**

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities; those suspect building materials will be considered asbestos-containing materials until a State Certified, Asbestos Consultant is retained to determine asbestos content of those materials.

Federal regulations define asbestos-containing material (ACM) as any material that contains more than one percent (>1%) asbestos. State Cal/OSHA-California Labor Code, Section 6501.8 defines “asbestos containing construction material (ACCM)” as any manufactured construction material that contains more than one tenth of one percent (>0.1%) asbestos by weight.

1.2 Asbestos Recommendations

Based on the available information gathered during the performance of this survey and its conclusions, Bainbridge makes no recommendations for abatement at this time.

1.3 Disclaimer and Limitations for Asbestos Related Projects

This document is prepared for the sole use of the CCCD and its authorized representatives and any agencies directly involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

The information in this report or portions thereof may be required to be included in notifications to employees, contractors or other visitors to the building. The CCCD or its agents shall not use this report as a specification or work plan for any of the work suggested or recommended in the report.

This report is based upon conditions and practices observed at the property and information made available to Bainbridge. This report does not identify all hazards or unsafe practices, nor does it indicate that other hazards or unsafe practices exist at the premises.

The conclusions and summary presented in this report are based on a review of pertinent regulations, and guidelines or requirements commonly followed by industry standards, data collected during the site inspection, and information provided by the CCCD, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. Bainbridge believes the data and analysis to be accurate and relevant but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties.

Any observations of asbestos containing materials represent the conditions at the specified locations and times of the site inspection survey only. The selection of sample areas was limited to accessible areas of the Music Building Store Room.

2.0 Lead-Based Paint XRF Testing of Painted Surfaces

Michael Capriano, CDPH Certified Lead-based Paint Inspector Assessor, of Bainbridge performed the limited survey activities and collected the suspect lead-based paint XRF readings at Compton Community College – Music Building – Storage Room located at 1111 East Artesia Boulevard, Compton, California 90221. The purpose of the survey was to identify any suspect lead-containing building materials that are scheduled to be impacted or disturbed during an upcoming/scheduled HVAC Upgrade Project at the subject property. The survey was performed on the date of August 27th, 2018.

Bainbridge conducted the limited lead-based paint survey of the subject storage room in compliance with the following Federal, State, and Local regulations:

- 24 CFR Part 35.80-35.98 and 35.3120(b) – U.S. Department of Housing and Urban Development (HUD)
- Toxic Substances Control Act (TOSCA) Section 406
- 40 CFR 745.103 – Environmental Protection Agency (EPA)
- Title 17 Section 35000 – Code of California Regulations
- Cal/OSHA Title 8 Section 1532.1 – California Occupational Safety and Health Administration
- Cal/OSHA Title 8 Section 5194 – California Occupational Safety and Health Administration

In compliance with Title 17, CCR, Division 1, Chapter 8 and 24 CFR Subtitle A, Part 35.125, Bainbridge filed the 8552 form as required to notify the California Department of Health Services the findings of the lead inspection/assessment conducted on the site.

Currently, the State of California, the U.S Department of Housing and Urban Development (HUD), and the Environmental Protection Agency (EPA) define lead-based paint as paint or other surface coating with lead content equal to or greater than 1.0 milligram per square centimeter (mg/cm^2), 0.5% by weight and/or 5,000 parts per million lead on the surface area. However, The County of Los Angeles Department of Health Services (DHS) defines Lead-Based Paint as any paint or surface coating with concentrations of lead at or above 0.7 milligram per square centimeter (mg/cm^2). Based on the location of the subject property in Los Angeles County the "abatement level" (threshold) setting of 0.7 mg/cm^2 was chosen for this inspection.

XRF Paint Readings: XRF measurements were collected. Bainbridge conducted the survey using a Heuresis PB200i Analyzer, X-ray Fluorescence (XRF) detector. All survey activities and XRF measurements were performed in accordance with the United States Department of Housing and Urban Development's guidance document, entitled "Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing: Chapter 7 Lead-based paint inspection".

2.1 Lead-Based Paint Findings

XRF Testing: Twenty-six (26) XRF readings were collected. The field data and results of XRF testing are included in Appendix B of this report.

The XRF Lead Sampling Logs are provided as an attachment to this survey/inspection report. These logs tabulate each individual test, sample taken throughout the subject rooms and describes the test location, the component to which the paint is applied, condition, color and lead content in milligrams per square centimeter and the result.

As a result of lead-based paint XRF testing, the following lead-containing building materials were identified:

MUSIC BUILDING – Storage Room

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
4	B	Music	Storage	Door (Outside)	Metal	Gray	2.5	Positive	25 Sq. Ft.
5	B	Music	Storage	Door (Inside)	Metal	Gray	1.7	Positive	See No. 4
6	B	Music	Storage	Door Frame	Metal	Gray	3.0	Positive	See No. 4
13	B	Music	Storage	Door Frame	Metal	Gray	1.4	Positive	See No. 4

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered lead-containing materials. Prior to bid, contractor is responsible for field verification of those materials, their quantities and measurements.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities: those suspect building materials will be considered lead-containing materials. In this event, a California State Inspector/Assessor shall be retained to sample/test those materials to determine their lead content prior to authorization of additional abatement work.

2.2 Lead-Based Paint Recommendations

Based on the available information gathered during the performance of this survey and its conclusions, Bainbridge makes recommends the following:

- The removal of the identified lead-based paint components from the subject buildings prior to any renovation or demolition activities. Bainbridge recommends the utilization of a state licensed lead abatement contracting company to remove, transport and dispose of the identified lead-containing waste in according to applicable Federal and State regulations.

- The Occupational Safety and Health Administration (OSHA) promulgated legislation (29 CFR 1926.62 and 8 CCR1532.1) entitled "Lead Exposure in Construction Industry", requires that any job that may potentially expose workers to any concentration of lead

(i.e., >0.01 mg/cm^2) be monitored by the employer to determine workers eight-hour time weighted average (TWA) exposure to lead.

2.3 Disclaimer and Limitations for Lead-Based Paint and Components

This document is prepared for the sole use of the CCCD and its authorized representatives and any agencies directly involved in this project. No other party should rely on the information contained herein without prior written consent of Bainbridge.

The information in this report or portions thereof may be required to be included in notifications to employees, contractors or other visitors to the building. CCCD or its agents shall not use this report as a project specification or work plan for any of the work suggested or recommended in the report.

This report is based upon conditions and practices observed at the property and information made available to Bainbridge. This report does not identify all hazards or unsafe practices, nor does it indicate that other hazards or unsafe practices exist at the premises.

This inspection and assessment were planned, developed, and patterned after *HUD Guidelines Chapter 7 Lead-based paint inspection*. Bainbridge utilized state-of-the-art practices and techniques in accordance with regulatory standards while performing this inspection. Bainbridge's evaluation of the relative risk of exposure to lead identified during this inspection is based on conditions observed at the time of the inspection. Bainbridge cannot be responsible for changing conditions that may alter the relative exposure risk or for future changes in accepted methodology.

The conclusions and summary presented in this report are based on a review of pertinent regulations, and guidelines or requirements commonly followed by industry standards, data collected during the site inspection, and information provided by CCCD, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. Bainbridge believes the data and analysis to be accurate and relevant but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties.

Any observations of lead-based paint and lead containing materials represent the conditions at the specified locations and times of the site inspection survey only. The selection of sample areas was limited to accessible areas of the Music Building Storage Room.

APPENDIX A

ASBESTOS FIELD DATA AND LABORATORY RESULTS

ASBESTOS BULK SAMPLE LOG

Client:	Compton Community College District	Bainbridge Project #:	18086517.10
Project Name:	Music Building – Storage Room	Inspector/Sampler:	Mike Capriano
Address:	1111 East Artesia Boulevard	Date Sampled:	08/27/2018
	Compton, California 90221		

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
1-Finish Coat	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	West wall	N/A	None Detected
1-Plaster	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	West wall	N/A	None Detected
2-Finish Coat	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	East wall	N/A	None Detected
2-Plaster	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	East wall	N/A	None Detected
3-Finish Coat	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	North Wall	N/A	None Detected
3-Plaster	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	North Wall	N/A	None Detected
4-Finish Coat	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	East Ceiling	N/A	None Detected
4-Plaster	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	East Ceiling	N/A	None Detected
5-Finish Coat	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	West Ceiling	N/A	None Detected
5-Plaster	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	West Ceiling	N/A	None Detected
6-Finish Coat	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	South Ceiling	N/A	None Detected

ASBESTOS BULK SAMPLE LOG

Compton Community College District – Music Building – Storage Room

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
6-Plaster	Music Building Storage Room	Plaster	Gray	Fair	Non-Friable	South Ceiling	N/A	None Detected

-End of Report-

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / gardengrovelab@latesting.com

LA Testing Order:	331817156
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Attention:	Karlin Cisco	**Phone:**	(714) 403-7191
	Bainbridge Environmental Consultants	**Fax:**	(714) 247-0025
	1322 Bell Avenue	**Received Date:**	08/27/2018 1:55 PM
	Suite 1N	**Analysis Date:**	08/27/2018
	Tustin, CA 92780	**Collected Date:**	08/27/2018
Project:	18086517.10		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1-Finish Coat *331817156-0001*	Wall - Plaster / West Wall	Gray/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
1-Plaster *331817156-0001A*	Wall - Plaster / West Wall	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-Finish Coat *331817156-0002*	Wall - Plaster / East Way	Gray/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
2-Plaster *331817156-0002A*	Wall - Plaster / East Way	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-Finish Coat *331817156-0003*	Wall - Plaster / North Wall	Gray/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
3-Plaster *331817156-0003A*	Wall - Plaster / North Wall	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-Finish Coat *331817156-0004*	Ceiling - Plaster / East Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-Plaster *331817156-0004A*	Ceiling - Plaster / East Ceiling	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5-Finish Coat *331817156-0005*	Ceiling - Plaster / West Ceiling	White/Beige Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
5-Plaster *331817156-0005A*	Ceiling - Plaster / West Ceiling	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6-Finish Coat *331817156-0006*	Ceiling - Plaster / South Ceiling	White/Beige Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
6-Plaster *331817156-0006A*	Ceiling - Plaster / South Ceiling	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 08/27/2018 19:42:23

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / gardengrovelab@latesting.com

LA Testing Order:	331817156
Customer ID:	32BAIN21
Customer PO:	
Project ID:	

Analyst(s)

Sotheary Son (12)

Michael DeCavallas, Laboratory Manager
or Other Approved Signatory

Initial report from: 08/27/2018 19:42:23

OrderID: 331817156

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 331817156#

PHONE:
FAX:

Company Name : Bainbridge Environmental Consultants, Inc.		**EMSL Customer ID:**	
Street: 1322 Bell Avenue, Suite 1N		**City:** Tustin	**State/Province:** CA
Zip/Postal Code: 92780	**Country:** U.S.	**Telephone #:** 714-247-0024	**Fax #:** 714-247-0025
Report To (Name): Karlin Cisco		**Please Provide Results:** ☐ Fax ☑ Email	
Email Address: kcisco@bainbridge-env.com		**Purchase Order:**	
Project Name/Number: 180865 17.10		**EMSL Project ID** (*Internal Use Only*):	
U.S. State Samples Taken:		**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt	

EMSL-Bill to: ☐ Same ☐ Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour | ☐ 6 Hour | ☒ 24 Hour | ☐ 48 Hour | ☐ 72 Hour | ☐ 96 Hour | ☐ 1 Week | ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air ☐ Check if samples are from NY
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☒ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NYS 198.8 SOF-V
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT (AHERA only)**
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite*
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ TEM Qual. via Filtration Technique
- ☐ TEM Qual. via Drop-Mount Technique

*Can not accept New York State Loose Fill Vermiculite Samples

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** | **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: Michael Capriano | **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled

Client Sample # (s): 6 | **Total # of Samples:** 6

Relinquished (Client): Michael Capriano | **Date:** 8/27/18 | **Time:** 1-55

Received (Lab): Brendon (WF) | **Date:** 8/27/18 | **Time:** 1:55PM

Comments/Special Instructions: See Attached COC

Controlled Document – Asbestos COC – R9 – 10/30/2014

Page 1 of _____ pages

331817156#

ASBESTOS BULK SAMPLE LOG

Client: Compton Community College District
Project Name: Music Building Storage Room
Address: 1111 East Artesia Boulevard
Compton, California 90221

Bainbridge Project #: 18086517.10
Inspector/Sampler: M. Capriano
Date Sampled: 8/27/2018

BAINBRIDGE
Environmental Consultants

Sample No.	Sample Location	Sample Description	Color	Material Condition	Friable Non-Friable	Material Location	Approx. Quantity	Laboratory Results
1	Wall	Plaster	green gray	Bad	non-friable	westwall	1088ft²	
2	wall	Plaster	green gray	Bad	non-friable	Eastway	1/A	
3	wall	Plaster	green gray	Bad	non-friable	Northwall	1/A	
4	Ceiling	Plaster	green gray	Bad	non-friable	East ceiling	544ft	
5	Ceiling	Plaster	green gray	Bad	non-friable	west ceiling	1/A	
6	Ceiling	Plaster	green gray	Bad	non-friable	South ceiling	1/A	
7								
8								
9								
10								
11								
12								
13								
14								
15								

6226 Whittier Boulevard, Suite B
Los Angeles, CA 90022

Tel (213) 921-4884
Fax (714) 247-0025

APPENDIX B

LEAD-BASED PAINT FIELD DATA AND ANALYTICAL RESULTS

XRF Lead-Based Paint Sampling Log

Client: Compton Community College District
Site: Music Building –Storage Room
Address: 1111 East Artesia Boulevard
Compton, California 90221

Client Project #: N/A
Bainbridge Project #: 18086517.10
Inspector/Sampler: Mike Capriano
Date Sampled: 08/27/2018

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XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
1	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**0.7**	**Positive**	**Time: 1212**
2	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**0.7**	**Positive**	**Time:1212**
3	**NA**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**1.0**	**Positive**	**Time: 1213**
4	**B**	**Music**	**Storage**	**Door (Outside)**	**Metal**	**Gray**	**2.5**	**Positive**	**25 SQ FT**
5	**B**	**Music**	**Storage**	**Door (Inside)**	**Metal**	**Gray**	**1.7**	**Positive**	**25 SQ FT**
6	**B**	**Music**	**Storage**	**Door Frame**	**Metal**	**Gray**	**3.0**	**Positive**	**25 SQ FT**
7	B	Music	Storage	Stucco (Outside)	Plaster	White	0.1	Negative	N/A
8	B	Music	Storage	Louver	Metal	White	0.1	Negative	N/A
9	B	Music	Storage	Louver	Metal	White	0.1	Negative	N/A
10	B	Music	Storage	Louver	Metal	White	0.0	Negative	N/A
11	B	Music	Storage	Drain Pipe	Metal	White	0.2	Negative	N/A
12	C	Music	Storage	Door Jam	Metal	Tan	0.1	Negative	N/A
13	**B**	**Music**	**Storage**	**Door Frame**	**Metal**	**Gray**	**1.4**	**Positive**	**25 SQ FT**
14	B	Music	Storage	Door (Inside)	Metal	Tan	0.2	Negative	N/A
15	B	Music	Storage	Wall	Plaster	Gray	0.3	Negative	N/A

XRF Lead-Based Paint Sampling Log

Compton Community College District – Music Building – Storage Room

BAINBRIDGE
Environmental Consultants

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
16	A	Music	Storage	Wall	Plaster	Gray	0.2	Negative	N/A
17	A	Music	Storage	Wall	Plaster	Gray	0.1	Negative	N/A
18	D	Music	Storage	Wall	Plaster	Gray	0.2	Negative	N/A
19	D	Music	Storage	Wall	Plaster	Gray	0.0	Negative	N/A
20	A	Music	Storage	Ceiling	Plaster	Gray	0.1	Negative	N/A
21	B	Music	Storage	Ceiling	Plaster	Gray	0.2	Negative	N/A
22	C	Music	Storage	Wall	Plaster	Gray	0.1	Negative	N/A
23	C	Music	Storage	Wall	Plaster	Gray	0.1	Negative	N/A
24	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**0.9**	**Positive**	**Time: 1244**
25	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**0.9**	**Positive**	**Time: 1245**
26	**N/A**	**N/A**	**Calibration**	**Calibration**	**Calibration**	**Green**	**1.0**	**Positive**	**Time: 1245**

-End of Report-

6226 Whittier Boulevard, Suite B
Los Angeles, California 90022

Tel (213) 921-4884
Fax (714) 247-0025

APPENDIX C

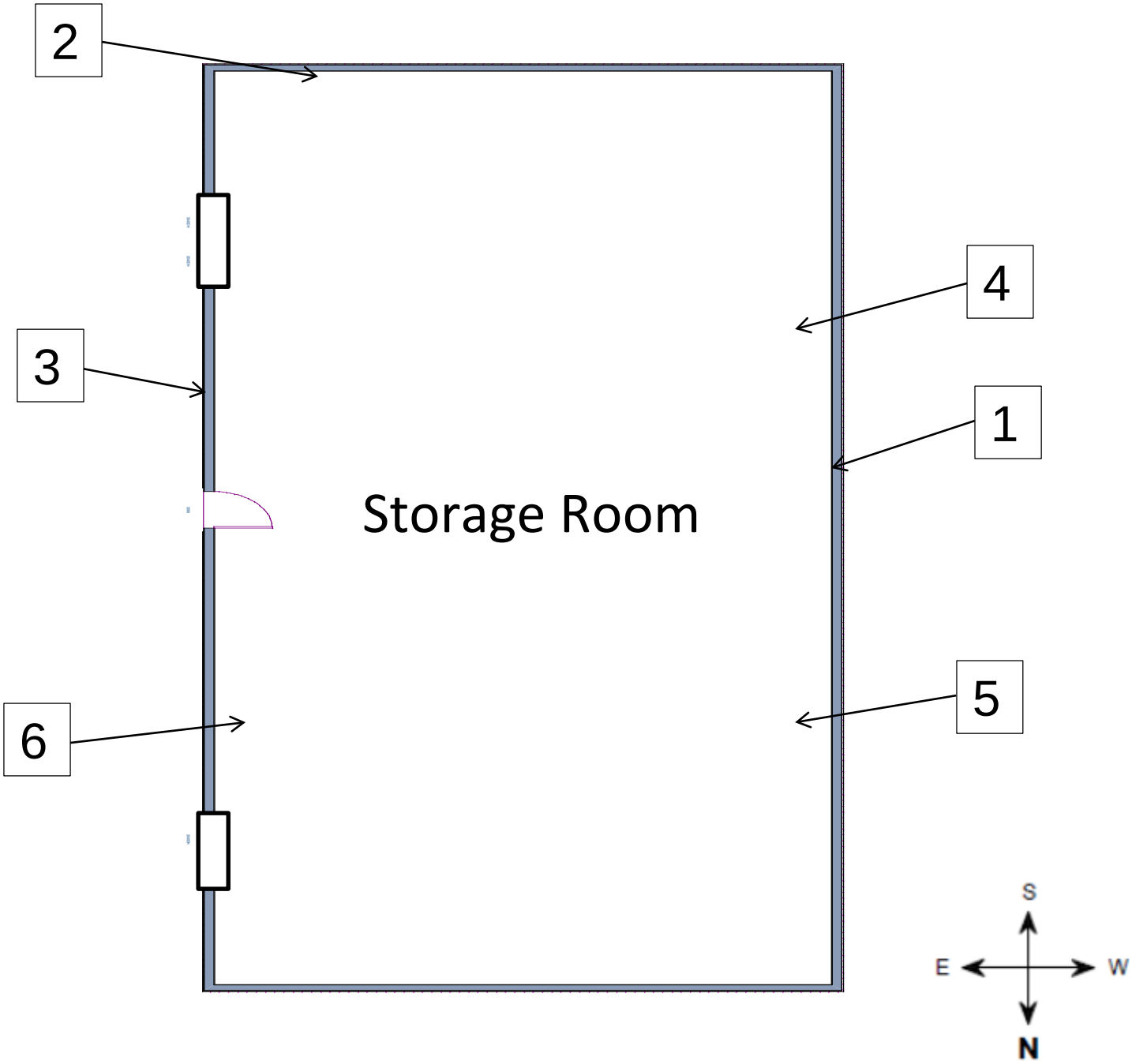
ASBESTOS AND LEAD INSPECTOR'S STATE CERTIFICATIONS


State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant
Michael John Capriano
Name
Certification No. 02-3092
Expires on 03/22/19
This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.
State of California Department of Public Health
Lead-Related Construction Certificate
Certificate Type
Expiration Date
Inspector/Assessor
08/14/2019
24769
Michael J. Capriano
ID #: 7844

APPENDIX D

ASBESTOS AND LEAD SAMPLE LOCATION DRAWINGS

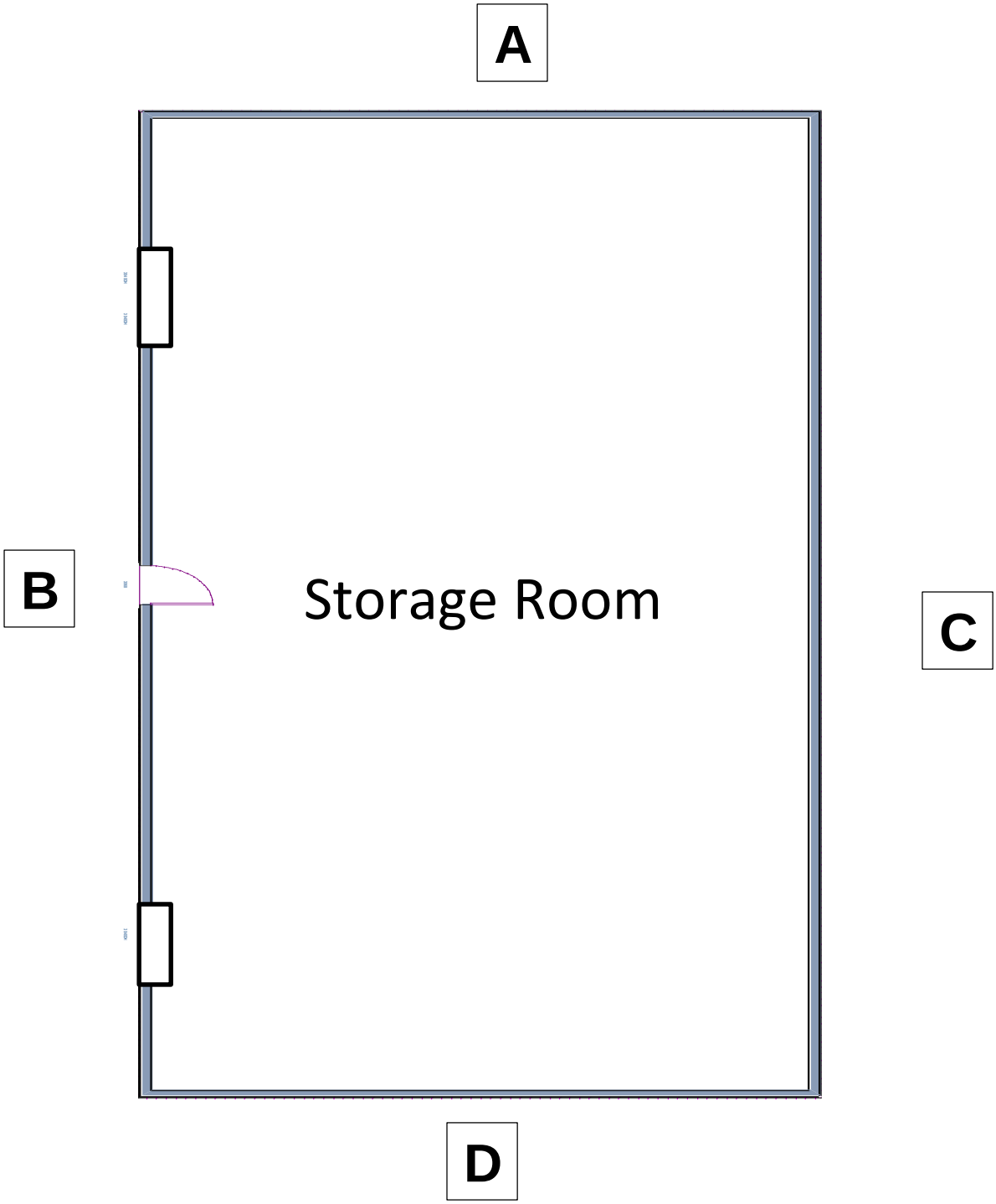
Compton Community College District
Compton Community College – Music Building – Storage Room
Asbestos Sample Location Drawing



BAINBRIDGE
Environmental Consultants

6266 Whittier Boulevard, Suite B ◆ Los Angeles, California 90022
Phone (213) 921-4884 ◆ Fax (714) 247-002

Compton Community College District
Compton Community College – Music Building – Storage Room
Lead XRF Sample Location Drawing – For Reference Only



BAINBRIDGE
Environmental Consultants

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Phone (213) 921-4884 ◆ Fax (714) 247-002

APPENDIX E

COPY OF CDHP LEAD HAZARD EVALUATION FORM 8552

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation August 15, 2018

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
1111 E. Artesia Boulevard	Compton	Los Angeles	90221

Construction date (year) of structure	Type of structure		Children living in structure?	
Circa 1950	☐ Multi-unit building	☑ School or daycare	☐ Yes	☑ No
	☐ Single family dwelling	☐ Other_____	☐ Don't Know	

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
Compton Community College District	310-200-6900

Address [number, street, apartment (if applicable)]	City	State	Zip Code
1111 E. Artesia Boulevard	Compton	California	90221

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other_____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Sebastian Moreno	714-213-247-0025

Address [number, street, apartment (if applicable)]	City	State	Zip Code
6226 Whittier Boulevard	Los Angeles	California	90022

CDPH certification number	Signature	Date
S. Moreno #30769		August 22, 2018

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Not applicable

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

ASBESTOS ABATEMENT PROJECT SPECIFICATIONS

For:

COMPTON COMMUNITY COLLEGE
CAFETERIA/KITCHEN BUILDING
HVAC UPGRADE PROJECT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

PRESENTED TO:

COMPTON COMMUNITY COLLEGE DISTRICT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

PRESENTED BY:

BAINBRIDGE
Environmental Consultants

6226 Whittier Boulevard, Suite B
Los Angeles, California 90022
Phone: 213-921-4884
Fax: 714-247-0025

Bainbridge Project #: 18086507.10
August 22, 2018

SECTION 02-82-00 - ASBESTOS ABATEMENT

PART 1 – GENERAL

The work required to be performed by the Contractor comprises the following:

Project Title: Cafeteria/Kitchen Building – HVAC Upgrade Project
Client: Compton Community College District
Location: 1111 East Artesia Boulevard, Compton, California 90221

1.1 WORK DESCRIPTION

The work included consists of furnishing labor, materials, permits, equipment, services, insurance including, but not limited to, the handling and transportation and disposal of asbestos-containing materials and waste resulting from the removal of asbestos-containing materials in various areas. This work shall be conducted by a licensed abatement contractor and certified personnel in accordance with all applicable Federal, State, and local regulations.

A. Materials and their quantities to be abated shall be verified by the General Contractor/Abatement Contractor prior to the abatement work. Abatement work shall be cross-referenced and shall be coordinated with Compton Community College District. Refer to Bainbridge's Limited Asbestos and Lead-Based Paint XRF Survey Report for Compton Community College District – Cafeteria/Kitchen Building – HVAC Upgrade Project dated August 22, 2018 for a full and complete description of the materials and locations surveyed. The asbestos-containing materials to be abated, their general location(s) and estimated quantities are follows:

CAFETERIA/KITCHEN BUILDING:
Asbestos

Sample No.	Sample Location	Sample Description/Color	Material Location	Approx. Quantity	Laboratory Results
28	Cafeteria Roof	Duct Seam Mastic/Gray	Throughout Cafeteria Roof	25 Lin. Ft.	3% Chrysotile
29	Cafeteria Roof	Duct Seam Mastic/Gray	See Above	Included Above	3% Chrysotile

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered assumed asbestos containing materials. Approximate quantities are for general information only, not for bidding purposes. Prior to bid, the contractor is responsible for field quantification and verification of all identified and/or assumed asbestos-containing materials.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities; those suspect building materials will be considered asbestos-containing until a State Certified, Asbestos Consultant is retained to determine asbestos content of those materials.

Federal regulations define asbestos-containing materials as any material containing more than one percent (1%) asbestos by weight. California Labor Code, Section 6501.8 defines “asbestos containing construction materials (ACCM)” as any manufactured construction material that contains more than one tenth of one percent (0.1%) asbestos by weight.

B. Asbestos abatement observation services shall be conducted by a third party consultant and shall be contracted directly by Compton Community College District.

C. All applicable codes and regulations revised and updated are made part of these specifications by reference herewith.

1. Code of Federal Regulations (CFR):

40 CFR Part 763	Asbestos Containing Materials In Schools
29 CFR 1910.1001	Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite
29 CFR 1910.1101	Asbestos
29 CFR 1910.1200	Hazard Communication
29 CFR 1910.20	Access to Employee Exposure and Medical Records
29 CFR 1910.132	General Requirements - Personal Protective Equipment
29 CFR 1910.133	Eye and Face Protection
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.145	Specifications for Accident Prevention, Signs and Tags
29 CFR 1926.1101	Asbestos Standard for construction Industry
40 CFR 61	Sub-part A General Conditions
40 CFR 61	Sub-part M National Emission Standards for Asbestos
40 CFR 61.152	Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations

2. U. S. Environmental Protection Agency (EPA):
   Publication No.
   560/5-85-024 Guidance for Controlling Asbestos-Containing Materials in Buildings

3. National Institute of Occupational Safety and Health (NIOSH):
   Manual of Analytical Methods, 2nd Ed., Vol. 1.
   Physical and Chemical Analysis Method (P&CAM):
   Method 239, Asbestos Fibers in Air
   Method 7400, Fibers (N1, 3rd Ed., Vol. 1.)

4. American National Standard Institute (ANSI):
   Z9.2-1979 Fundamentals Governing The Design and Operation of Local Exhaust Systems
   Z88.2-1980 Practices for Respiratory Protection

5. National Fire Protection Association (NFPA):
   Standard 90A Installation of Air Conditioning and Ventilation Systems.

6. American Society for Testing Materials (ASTM):
   E 849-82 Safety and Health Requirements Relating to Occupational Exposures to Asbestos
   P-189 Specifications for Encapsulants for Friable Asbestos-Containing Materials

7. Underwriters Laboratories, Inc. (UL):
   586-77 Test Performance of High Efficiency,
   (R1982) Particulate, Air Filter Units

8. Title 8 California Code of Regulations (CCR):
   Section 1529 Asbestos
   Section 5208 General Industry Safety Orders
   Section 5144 Respirator Regulations

9. South Coast Air Quality Management District – Rule 1403

10. Local and other regulations

1.2 CONTRACTOR'S QUALITY ASSURANCE

A. Safety Compliance: In addition to detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities and publications regarding handling, storing, transporting, and disposing of asbestos waste materials. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting the work. Where the requirements of this specification and referenced documents vary, the most stringent requirement shall apply.

B. Contractor shall have at least one copy each of 29 CFR Part 1910 - Occupational Safety and Health Standards, 29 CFR 1926.1101, 40 CFR Part 61, sub-parts A & M, and all pertinent state and local regulations at his office and at the job site.

C. Before the commencement of any work at the site, the contractor shall post EPA and OSHA caution signs in and around the work area to comply with EPA and OSHA regulations.

D. Personal monitoring and other monitoring, which are required by law, or considered necessary by the Contractor for worker protection shall be the responsibility of the Contractor.

E. Area monitoring will be performed by the Observation Service. A predetermined number of air samples will be collected at various stages of the Work, in designated places inside and outside the Work areas.

1.3 SUBMITTALS AND NOTIFICATIONS

A. At the pre-construction meeting, the Contractor shall submit (1) declaration certifying that all Contractors' employees have been adequately trained and (2) a photocopy of training certificates for each employee from their respective training agency or organization. When certified or other formal worker training is required by state or local agencies, Contractor may submit a photocopy of the employee's asbestos worker certification card in lieu of training certificates.

B. Submit at Pre-construction Meeting manufacturer's certification that the respirators to be used in this Project comply with government agency requirements. Contractor's certifications for each employee must clearly state that each employee has been fit tested and properly trained for respirators.

C. Submit proof that all persons providing labor and/or professional services who will be entering abatement work areas have had current (less than one year prior to the date of their participation on the Project) medical examinations. Furnish physician's interpretation of said examinations to the State on the Certificate of Medical Compliance form provided in the Supplementary General Conditions

section of these Construction Documents at the Pre-construction Meeting, or prior to that person's commencing work on this Project, and for each person subsequently providing labor and/or professional services at the job site for whom a certificate was not initially furnished. Refer to Article 3.5, A. NOTE: In lieu of the above certificate, current medicals will be acceptable providing that a statement in the medical exam declares that the worker can wear a negative pressure respirator while performing their work. Contractor shall resubmit physician's interpretation of medical examination for each worker or professional employed by him whose physician or regulatory required annual or employment termination examination becomes due while said worker or professional is participating in the Project. This requirement can be waived or modified only by COMPTON COMMUNITY COLLEGE DISTRICT in writing or verbally, followed up in writing.

D. Immediately after Contractor has received the COMPTON COMMUNITY COLLEGE DISTRICT's Notice of Award, submit manufacturer's catalogue, samples, Material Data Safety Sheets, (MSDS) and other items needed to demonstrate the quality of the proposed abatement materials. Under no circumstances shall proposed materials be used before written approval from COMPTON COMMUNITY COLLEGE DISTRICT, COMPTON COMMUNITY COLLEGE DISTRICT's Representative or Observation Service. Submittals are required if the following materials are proposed:

1. Encapsulant
2. Surfactant
3. Protective packaging
4. Lagging adhesive
5. Glove bags
6. Resaturant
7. Solvents

E. Submit at Pre-construction Meeting proof satisfactory to COMPTON COMMUNITY COLLEGE DISTRICT, or the Observation Service that all required permits have been obtained and notifications have been sent. Contact and notify the following government agencies in writing ten working days prior to the commencement of Work:

1. EPA Regional Asbestos Coordinator,
2. Occupational Safety and Health Administration,

3. Local Air Quality Management District,

4. Local Fire Department if required,

All notifications shall contain as a minimum the following information:

1. Name, address and telephone number of COMPTON COMMUNITY COLLEGE DISTRICT including the contact person.

2. Name, address, EPA numbers, license number and telephone number of the Contractor including the contact person.

3. Name, address and description of the building, including size, age, and prior use of building.

4. The type and quantity of asbestos material involved and the description of the Work.

5. Scheduled starting and completion dates for Abatement Work.

6. Procedures that shall be employed to comply with the regulations.

7. The name, address, EPA number and telephone number of the Transporter.

8. The name and address of the Hazardous Waste Disposal Facility where the Asbestos Waste shall be deposited.

F. Submit at Pre-Construction Meetings copies of all government agency correspondence and proof of delivery. No work shall commence until verification of required notifications is made by the Observation Service.

G. Submit at Pre-construction Meeting the method of transport of hazardous and non-hazardous waste, including the name, address, EPA ID number, and telephone number of the transporter(s).

H. Submit for approval at the Pre-construction Meeting the name, address, EPA ID number, and telephone number of the hazardous and non-hazardous waste disposal facility(s) to be used.

I. Submit at the Pre-construction Meeting for approval a detailed plan of the work procedures to be used in the abatement of the asbestos-containing materials. The asbestos plan must be approved in writing by the Observation Service and

COMPTON COMMUNITY COLLEGE DISTRICT before the start of any work, including work mobilization. The plan shall include:

1. Location of Asbestos Work Areas.

2. Layout and construction details of Decontamination Enclosure Systems.

3. Project schedule including critical paths, interface of other trades, and completion dates of abatement stages and work areas.

4. Personal air monitoring procedures.

5. Detailed description of the method to be employed in order to control pollution, including negative air equipment calculations.

6. Names of Superintendent, Foremen, Project Manager and other key personnel, and their day time, emergency telephone numbers and pagers.

7. Security Plan including sketches necessary to clearly describe the plan.

8. Emergency evacuation plan for injured workers, compressor failure, fire and other emergencies.

J. Submit at Pre-construction Meeting manufacturer's certification that vacuums, equipment filters, and other local exhaust ventilation equipment conform to ANSI Z9.2-1979.

K. Provide proof of Contractor's License and Asbestos Certification from the Contractor Licensing Board, and proof of registration with the Division of Occupational Safety and Health in accordance with California Labor Code, Section 6501.

PART 2 - PRODUCTS

2.1 GENERAL

A. Contractor shall furnish, provide and utilize the following products in the Work as specified herein.

B. The Work is based on the materials, equipment and methods described in these specifications. COMPTON COMMUNITY COLLEGE DISTRICT or the Observation Service will consider proposals for substitutions of materials and equipment only when such proposals are accompanied by written technical product data.

C. No materials or equipment shall be substituted unless approved in writing by COMPTON COMMUNITY COLLEGE DISTRICT or the Observation Service.

2.2 PROTECTIVE COVERING (PLASTIC) AND DISPOSAL BAGS

A. Shall be fire retardant plastic or equivalent with a thickness of ten mil, six mil, four mil and three mil polyethylene sheets. Disposal bags shall be pre-printed with labels as required by CFR 40 Part 60 or applicable CAL-OSHA requirements.

2.3 TAPE AND GLUE

A. Duct Tape 2" or wider, or equal, and capable of sealing joints of adjacent sheets of plastic, and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials. The bonding strength and seal must not be affected by mist, water, encapsulating agent or any other materials used in the work.

2.4 PROTECTIVE PACKAGING

A. Appropriately labeled clear, double six (6) mil sealable polyethylene bags as a minimum.

B. Bilingual labels (English and other appropriate language) on containment glove bags, waste packages, contaminated material packages and other containers shall be in accordance with EPA or OSHA standards.

2.5 WARNING LABELS AND SIGNS

A. As required by 29 CFR 1910.1001, 29 CFR 1910.1200, 29 CFR 1926.58 and other pertinent state and local codes and regulations.

2.6 WETTING AGENT OR SURFACTANT

A. Surfactant, or wetting agent, for amending water will be 50 percent polyoxyethylene polyglycol ether and 50 percent polyoxyethylene ether, or equivalent, at a concentration of one (1) ounce per five (5) gallons of water. The material must be odorless, non-flammable, non-toxic, non-irritant and non-carcinogenic.

2.7 ENCAPSULATING SEALER

A. Shall be a penetrating or bridging type, pollution-free, water based, non-toxic, with a Class A fire classification as specified herein. Encapsulants with the ingredient Methylene Chloride are not acceptable unless the contractor can prove to COMPTON COMMUNITY COLLEGE DISTRICT’s satisfaction that equal substitute materials are not available. If substitutes are not used, the Contractor shall submit with the asbestos plan, for approval, respiratory protection and negative air discharge procedures to protect workers, authorized

personnel and the public from Methylene Chloride exposure. Material shall be flexible when cured, resistant to weathering, oxidation, aging and abuse.

2.8 LAGGING ADHESIVE

A. Shall meet NFPA 90A Code, such as Arabol, Childers CP52, Insul-Coustic 102, or approved equal.

2.9 TOOLS AND EQUIPMENT

A. Provide suitable tools for asbestos removal and encapsulation.

B. HEPA vacuums shall comply with ANSI Z9.2-1979

C. Ladders and scaffolds shall be of required OSHA dimensions and quantities so that all work surfaces can be easily and safely accessed.

D. Electrical equipment shall be UL-listed and approved, and shall have ground-fault interrupt.

E. Airless spray equipment shall have a nozzle pressure with an adjustable range of 400-1500 psi.

PART 3 - REQUIREMENTS FOR WORKER PROTECTION

3.1 TRAINING PROGRAM

A. Each employee shall receive training in the proper handling of materials that contain asbestos, including all aspects of work procedures and protective measures, use of protective clothing and respiratory protection, use of showers, entry and exit procedures from Work areas and in OSHA regulations. Each employee shall also understand the health implications and risks involved, including the illness possible from exposure to airborne asbestos fibers and the increased risk of lung cancer associated with smoking cigarettes and asbestos exposure, understand the use and limits of the respiratory equipment to be used, and understand the purpose of medical surveillance and the monitoring of airborne quantities of asbestos as related to health and respiratory equipment. The training program shall comply with federal, state and local regulatory requirements.

B. Emergency evacuation procedures to be followed in the event of Worker injury or shall be included in the worker training program.

3.2 DRESS AND EQUIPMENT

A. Work clothes shall consist of disposable full-body coveralls, head covers, boots, rubber gloves or equivalent. Sleeves at wrists and cuffs at ankles shall be

secured. Fire retardant full-body coveralls are required in areas of open flame, or where required by local regulations.

B. Eye protection and hard hats shall be available as appropriate or as required by applicable safety regulations.

C. Provide authorized visitors with suitable protective clothing, headgear, eye protection, and footwear whenever they are required to enter the Work area.

3.3 RESPIRATORS

A. Respiratory protective equipment shall be MSHA/NIOSH approved in accordance with the provisions of 30 CFR Part 11. Respiratory instructions shall be posted in the clean room or work area.

B. Half-mask or full-face air-purifying respirators with HEPA filters may be worn during the preparation and work being performed.

C. The Contractor shall provide Workers with approved, permanently personally-issued and marked respirators with changeable filters. The Contractor shall provide a sufficient quantity of filters approved for Asbestos so that Workers can change filters during the workday. Filters shall not be used any longer than one (1) workday or whenever an increase in breathing resistance is detected. The respirator filters shall be stored at the job site in the Clean Room and shall be totally protected from exposure to asbestos before their use.

D. Workers shall always wear a respirator, properly fitted on the face, in the Work Area, from the start of preparation work until all areas have been given written clearance by the Observation Service.

3.4 WORKER PROTECTION PROCEDURES

Bilingual (English and other appropriate language) Worker protection procedures must be posted in the Clean Room or Work Area. If the first language of all Workers is English, the bilingual procedures are accepted.

A. Each Worker and Authorized Visitor shall, upon entering the job site: remove street clothes and put on a respirator and clean protective clothing before entering the Work Area.

B. All Workers shall, each time they leave the Work Area: remove gross contamination from clothing before leaving the Work Area; proceed to the Equipment Room and remove all clothing except respirators; still wearing the respirator, proceed naked to the showers; clean the outside of the respirator with soap and water while showering; remove the respirator; thoroughly shampoo and wash themselves.

C. Following showering and drying off, each Worker shall proceed directly to the Clean Room and dress in their personal clothing. Before reentering the Work Area, each Worker and Authorized Visitor shall put on a clean respirator and shall dress in clean protective clothing.

D. Contaminated protective clothing and work footwear shall be stored in the Equipment Room when not in use in the Work Area. At appropriate times or upon completion of Asbestos Abatement, dispose of protective clothing and footwear as contaminated waste, or launder in accordance with government regulations.

E. Workers removing waste containers from the Equipment Decontamination Enclosure shall enter the Holding Area from outside wearing a respirator and dressed in clean disposable coveralls. No Worker shall use this system as a means to leave or enter the Washroom or the Work Area.

F. The disposable clothing worn outside the Work Area shall be of different color or markings from the disposable clothing worn inside the Work Area.

G. Workers shall not eat, drink, smoke, or chew gum or tobacco while in the Work Area. Workers and Authorized Visitors with beards or who are unshaven shall not enter the Work Area.

3.5 MEDICAL DOCUMENTS

A. Before exposure to airborne Asbestos, the Contractor will provide each employee providing labor or professional services at the Project site with a current comprehensive medical exam, including a history of respiratory and gastrointestinal diseases, meeting the general definition outlined in 29 CFR 1910.1001, 29 CFR 1910.134, 29 CFR 1926.1101 and California Administrative Code Title 8, CAC Section 5208, page 442.2.l sub-part 1. The contractor shall submit a current medical examination report. The medical report shall contain a statement from the examining physician that the employee can function normally wearing a respirator or that the safety or health of the employee or other employees will not be impaired by his use of a respirator. No employee will be allowed to enter the Work Area without having first provided the completed copy of their medical examination to COMPTON COMMUNITY COLLEGE DISTRICT‘s Representative and until the medical report has been approved by the Observation Service.

3.6 EMPLOYEE IDENTIFICATION

A. Each employee shall bring to the job at least two forms of identification, one of which has his/her photograph.

PART 4 - WORK EXECUTION - ASBESTOS ABATEMENT PROCEDURES

4.1 WORK AREA PREPARATION AND REMOVAL FOR ASBESTOS MATERIALS

A. Preparation procedures for the Work including the removal the asbestos-containing materials and associated debris. Removal of these materials or other friable asbestos-containing materials**,** unless specified otherwise, shall be executed inside a fully "Contained" Work area.

1. All surfaces and fixed objects including carpets in the Work areas shall be pre-cleaned using HEPA filtered vacuums and/or wet cleaning methods as appropriate. Methods that would raise dust, such as dry sweeping or vacuuming with equipment with non HEPA filters must not be used. Asbestos-containing materials must not be disturbed during the pre-cleaning phase.

2. Contractor shall isolate the Work area for the duration of the Work by sealing all openings including, but not limited to, HVAC ducts, diffusers and grilles, skylights, doorways, and windows, with six (6) mil polyethylene taped securely to a clean surface. Spray adhesive, used on finished surfaces, should be avoided where possible. Construct barriers that enclose or separate Work Areas with wood or metal framing members and sheathed with 3/8" min. plywood. Barriers shall form a seal at vertical walls and at the floor deck above and below.

3. HVAC systems shall be shut down. Contractor shall design the Work area preparation and engineering controls as specified and/or as required to prevent damage to and contamination of the affected HVAC system. Contractor shall remove HVA system filters, and pack them in protective six (6) mil polyethylene sheeting for proper disposal. The Contractor shall install new filters upon completion of all Work.

4. Contractor shall remove all movable objects including but not limited to carpets from the Work area. All fixed and movable objects requiring cleaning shall be washed with amended water or cleaned with a HEPA filtered vacuum.

5. Clean and cover fixed and movable objects that remains in the Work area with six (6) mil polyethylene sheeting taped securely in place.

6. The objects removed shall be stored in a location designated by COMPTON COMMUNITY COLLEGE DISTRICT, and in a manner that will prevent contamination or damage to the objects. Damaged and missing objects will be replaced by the Contractor at his own expense

and to the satisfaction of COMPTON COMMUNITY COLLEGE DISTRICT.

7. Seal and protect all light fixtures, exit signs and other electrical items, etc., that will remain within the Work area, with six (6) mil polyethylene, taped securely. The polyethylene cover shall be kept away from heat-generating electrical devices where fire or damage to the device is possible. Light fixtures and all other electrical items shall be thoroughly cleaned before covering.

8. Install 2' x 2' plexiglass observation window(s) at strategic location(s) in the "Containment" barrier to allow observation of work from outside the Work Area.

9. Seal all wall, plumbing, duct and other cavities to prevent asbestos materials contamination "fallout" from falling into cavities during the Work.

10. The Contractor shall check regularly (at beginning, middle and end of each shift as a minimum) all polyethylene isolation and containment (protective) barriers for punctures, loose seals, contact with heat-generating devices, etc. Problem areas shall be repaired or mended immediately.

11. Maintain existing emergency exits from the building**.** Maintain a minimum of two (2) exits from Work Areas where possible. The first exit shall be the Worker the Decontamination Enclosure System. The second exit may be the Equipment Decontamination Enclosure System or a ripcord type, emergency only exit in the plastic containment at a door, window or other appropriate location. Exits, where possible, shall be on opposite ends of the Work Area. All exits shall be labeled in bright letters or signage. The second exit shall be labeled "Emergency Exit Only." Establish alternative exits satisfactory to fire officials where existing building or Work Area emergency exits are unavoidably blocked by activities of this project.

12. Provide and maintain appropriate fire extinguishers inside and outside the Work.

13. All electrical power must be shut down during the wet removal or encapsulation phase of the Work. Provide temporary power and lighting when necessary, and ensure safe installation of temporary power sources and equipment per applicable electrical code requirements including appropriate ground fault protection. Temporary light fixtures will be explosion proof. Provide and maintain auxiliary diesel generator equipment where existing facility power is insufficient. Locate generator or vent generator exhaust in a manner that will prevent carbon monoxide

hazards to workers and the public. When power shutdown is required, the Contractor shall check for conditions where shutdown will pose a danger to the building or to the building's components. Contractor shall take all precautions necessary, including inspections and testing, to insure the safety of his employees and other building occupants from electrical hazards during the course of the Work. Existing fire, smoke detection and other life safety systems shall be kept in operation at all times, or, the Contractor shall install and maintain a temporary system or alternate acceptable to COMPTON COMMUNITY COLLEGE DISTRICT and local fire officials.

14. The Contractor shall install and maintain negative air pressure equipment during the abatement and decontamination phases of the Work until the clearance test has passed. A sufficient amount of air shall be exhausted by the unit(s) to create a pressure of -0.02 inches of water within the Work area with respect to the area outside the Work area. A backup negative air unit must be in place in the event that the initial unit fails. In the event of a power failure, the backup emergency unit must be self-starting with a diesel generator back-up power. Locate the generator or vent generator exhaust in a manner that will prevent carbon monoxide hazards to workers and others in the building When more than one negative air pressure unit is required, emergency power back-up is required for at least half of all the units.

15. Install and maintain a manometer from the time abatement begins until the clearance test has passed in all Work areas. All ratings must be recorded in writing for the duration of the Work. Report the readings to the Observation Service at the start and end of each work shift.

16. Notify the Observation Service twenty-four hours in advance of when preparatory steps will be completed. Asbestos Abatement Work shall not commence until: all preparation requirements have been completed; all tools, equipment, and materials are on hand; all required submittals, notices and permits have been approved, and until the Observation Service authorizes that Work may commence.

17. Daily log: Maintain for the duration of the project from the first disturbance of asbestos-containing material, a sign-in/sign-out log. All persons performing work or visiting the site must print, sign, and date the logbook along with their company name showing duration at work site.

B. Removal procedures for "Contained" Work:

1. Remove all visible accumulations of asbestos material and debris. Wet-clean all surfaces within the Work area to remove asbestos residue.

2. Upon completion of the cleaning, the Contractor shall perform a complete visual inspection of the Work area to ensure that the Work area is free of any visible debris or residue.

3. Upon completion of the visual inspection, the Contractor shall notify the Observation Service in advance that the Work area is ready for an inspection.

4. Upon proper notification, the Observation Service will inspect the Work area for general conformance with the Specifications. Any nonconformance of the Work shall be remedied by the Contractor until the Work area is in compliance, and at the Contractor's expense.

5. Once the inspection is performed and the Work is approved by the Observation Service, the Contractor shall encapsulate the surfaces where asbestos materials have been removed. All surfaces within ceiling and other accessible cavities where spray-applied or trowel-applied materials have been removed shall also be encapsulated. The encapsulant shall be compatible with the existing substrate and replacement materials and shall be rated to safely withstand the temperature of the items to which it will be applied.

6. Upon completion of the encapsulation work, the Contractor shall notify the Observation Service in advance that the encapsulated surfaces are ready for inspection.

7. Upon proper notification, the Observation Service will inspect the encapsulated surfaces for general conformance with the Specifications. Any nonconformance of the Work shall be remedied by the Contractor until the Work is in compliance and at the Contractor's expense.

8. Upon successful compliance with the encapsulation inspection by the Observation Service, the Contractor shall remove the outer layer of plastic on the walls, floors, and ceilings (where applicable). The inner plastic layer and isolation barriers on vents, grilles, diffusers, etc., shall remain in place.

9. The Contractor shall repeat the necessary steps to remedy and correct the decontamination and encapsulation procedures in the event that the Contractor does not pass the inspection as conducted by the Observation Service. Remedial work shall be conducted by the Contractor at the Contractor's expense.

10. Wet-clean the Work area, wait twenty-four hours to allow for the settlement of dust, and again wet-clean, or clean with HEPA vacuum equipment, all surfaces within the Work area. After completing the second cleaning operation the Contractor shall perform a complete visual inspection of the Work Area to ensure that the Work Area is free of contamination.

11. Sealed drums and bags, and all equipment used in the Work area, shall be included in the cleanup and shall be removed from the Work area via the equipment decontamination enclosure system, at the appropriate time in the cleaning sequence.

12. Upon completion of the second cleaning operation, the Contractor shall notify the Observation Service twenty-four hours in advance that the Work area is ready for final inspection and air clearance testing. Contamination found during the final inspection shall be remedied by the Contractor at his expense.

13. Upon notification from the Observation Service that the Work area has passed the clearance testing, the Contractor shall proceed**,** where applicable in the Contract, the application of asbestos-free replacement materials and re-establish objects and systems as specified in these specifications. The inner plastic layer and isolation barriers may be removed by the Contractor at any time after the Work Area inspection has passed the clearance testing.

14. Upon completion of the application of replacement materials (where applicable), or after the removal of the inner plastic layer, isolation barriers and the re-establishment of objects and systems, the Contractor shall notify the Observation Service twenty-four hours in advance that the Work area is ready for Review.

15. Upon notification, the Observation Service and COMPTON COMMUNITY COLLEGE DISTRICT's Representative will review the Work area. Improper application of replacement materials, unapproved damage to the facility or its contents, or improper re-establishment of objects and systems discovered during the review shall be itemized on a punch list for correction by the Contractor at his expense. If no deficiencies are discovered the Contract or this portion of the Contract shall be approved in writing by the Observation Service and COMPTON COMMUNITY COLLEGE DISTRICT's Representative as complete. If deficiencies are noted, continue with the subsequent procedures.

16. Upon correction of the punch list deficiencies the Contractor shall notify the Observation Service and COMPTON COMMUNITY COLLEGE

DISTRICT's Representative in advance that the Work area is ready for final review.

Upon notification, the Observation Service and COMPTON COMMUNITY COLLEGE DISTRICT's Representative will review the corrected Punch List deficiencies. If deficiencies have not been properly corrected, the Contractor shall repeat, at his expense, the above mentioned procedures until all deficiencies have been corrected and approved.

4.2 DECONTAMINATION ENCLOSURE SYSTEMS

A. Decontamination enclosure system for asbestos abatement work in "Contained" Work areas:

1. Construct a decontamination enclosure system for the Work area consisting of three separate enclosed chambers as follows:

a. Equipment chamber with an air lock to the Work area and a curtained doorway to the shower room.

b. Shower chamber with two curtained doorways, one to the equipment chamber and one to the clean chamber. The shower chamber shall contain one shower with hot and cold or warm water. Careful attention shall be paid to the shower enclosure to ensure against air and water leaks. Trap shower waste using filters having a maximum pore size of 1.0 micron, and drain into a sanitary sewer. Replace filters when they become clogged. Ensure a supply of soap and disposable towels at all times in the shower chamber.

c. Clean chamber with one curtained doorway into the shower and one entrance or exit to non-contaminated areas of the building. The clean chamber shall have sufficient space for storage of the worker's street clothes, towels, and other non-contaminated items.

2. Construct an equipment decontamination enclosure system consisting of two totally enclosed chambers as follows:

a. Washroom with an air lock to a designated staging area of the Work Area and a curtained doorway to the holding chamber.

b. Holding chamber with a curtained doorway to the washroom and a doorway to an uncontaminated area.

4.3 DISPOSAL

A. Waste Transportation: Submit the method of transport of hazardous and non-hazardous waste including name, address, EPA I.D. number and telephone number of transporter.

B. Waste Site: Submit for approval the name, class, address, EPA I.D. number and telephone number of hazardous waste site(s) to be utilized for disposal.

C. Waste Manifest: Submit for approval at the Pre-Construction meeting a filled out Waste Manifest form. For Waste Manifest purposes the Generator is the facility of the subject work. Obtain necessary information for this purpose from COMPTON COMMUNITY COLLEGE DISTRICT. Give a copy of the Waste Manifest to Observation Service for each required shipment.

D. Containers to be loaded for transportation from the Holding Area must be removed by Workers who have entered from uncontaminated areas, dressed in clean overalls. Workers must not enter from the Holding Area into the Washroom or the Work Area.

1. The sealed asbestos containers shall be delivered to Contractor's pre designated approved non-hazardous waste site for burial; in accordance with local Air Pollution Control District Regulations.

E. Notify COMPTON COMMUNITY COLLEGE DISTRICT 48 hours in advance of the time when asbestos materials are to be removed from the site.

F. Contractor shall be responsible for safe handling and transportation of waste generated by this Contract to the designated waste site.

G. Contractor shall hold COMPTON COMMUNITY COLLEGE DISTRICT harmless for claims, damages, losses, and expenses against COMPTON COMMUNITY COLLEGE DISTRICT, including attorney's fees arising out of or resulting from asbestos spills on the site or spills on route to the disposal site.

4.4 ASBESTOS WHICH REMAINS

A. For asbestos-containing materials which cannot be removed as originally specified in these Contract Documents:

1. Apply a mist of encapsulating sealer into concealed areas with an airless sprayer, set at low pressure, to obtain absorption, good coverage, and penetration.

2. Contractor shall follow safety precautions required by manufacturer when handling sealer.

4.5 AIR MONITORING AND TESTING

A. Area Air Monitoring:

1. Throughout the removal and cleaning operations, area air monitoring shall be conducted by the Observation Service to ensure that the Contractor's work practices are minimizing worker and public exposures to airborne asbestos fibers in accordance with applicable codes, regulations, and ordinances. Fiber counting shall be done by the PCM Method No. 7400 established by NIOSH, with the following as minimum samples recommended by the EPA:

Areas To Be Sampled	Minimum No of Samples	Minimum Volume
Benchmark	1/work area	1300L
Work Area	1/work shift	1300L
Adjacent to Work Area	1/work shift	1300L
At Negative Air Equipment Exhaust	1/work shift	1300L

2. The Observation Service shall report the area air monitoring results to the Contractor on the following day. If area air monitoring results are exceed the required threshold, the Contractor shall make changes in their work practices to assure compliance with the following standards. Unsatisfactory results are fiber counts within the Work area in excess of the maximum acceptable level (0.1 fibers/cc) or fiber counts outside the Work area in excess of the benchmark.

B. Contractor Personal Air Monitoring:

1. The Contractor shall perform periodic personnel air monitoring at their own cost. Initial and periodic eight (8) hour TWA and thirty (30) minute excursion limit air monitoring of Worker exposures to airborne concentrations of asbestos fibers shall be in accordance with OSHA - CFR 1926.1101 requirements.

2. The Contractor shall report personal monitoring results to the Observation Service within 24 hours from the end of each work shift. Worker exposures to airborne asbestos concentrations shall not exceed the permissible exposure limit (PEL) of 8-hour time-weighted average (TWA) of 0.1 fibers per cubic centimeter of air, or the 1f/cc 30-minute period excursion limit.

C. Clearance Testing:

1. Regulated/Demarcated Areas: The Contractor will not be released until final visual and air sampling are performed according to Phase Contrast Microscopy (PCM) Methods (dependent on the quantity of ACM removed in each regulated area) in accordance with the guidelines set forth in the Occupations Safety and Health Administration's Title 8 1529.

2. If the air tests show that the Work area has not been decontaminated, the Contractor must repeat the cleaning and/or encapsulation application until the Work area is cleaned to the satisfaction of the Observation Service.

The contractor will be released only after final air clearance according to the AHERA air clearance criteria has been achieved.

4.6 REIMBURSEMENT OF COSTS OF COMPTON COMMUNITY COLLEGE DISTRICT OR THE OBSERVATION SERVICE

A. In the event that inspections and/or air testing by the Observation Service or regulatory agencies shows that the Work area or any portion of the Work area is not decontaminated or if the Work is not in conformance with the Contract Documents, COMPTON COMMUNITY COLLEGE DISTRICT and the Observation Service will record all time, tests and project related expenses spent to monitor the Work until the work is in compliance. All time, and expenses recorded by COMPTON COMMUNITY COLLEGE DISTRICT and the Observation Service to monitor the above work, and all time, tests and project related expenses incurred by COMPTON COMMUNITY COLLEGE DISTRICT and the Observation Service beyond the contract time shall, at the discretion of COMPTON COMMUNITY COLLEGE DISTRICT, be paid for by the Contractor. The Contractor, promptly upon receipt of the invoice from COMPTON COMMUNITY COLLEGE DISTRICT, or the Observation Service, shall reimburse COMPTON COMMUNITY COLLEGE DISTRICT at the normal billing rate of COMPTON COMMUNITY COLLEGE DISTRICT or the Observation Service or the COMPTON COMMUNITY COLLEGE DISTRICT is authorized to withhold funds from the Contract for all time spent by the COMPTON COMMUNITY COLLEGE DISTRICT and the Observation Service.

4.7 STOPPING THE WORK

A. If, at any time, the Observation Service decides that work practices are violating pertinent regulations, these contract documents or, in their opinion, endangering workers or the public, the Observation Service will immediately notify the Contractor that operations shall cease until corrective action is taken, and the Contractor shall take such corrective action before proceeding with the Work.

Cost for losses or damages due to a stop of the work shall be borne by the Contractor.

4.8 REPAIR AND PAINTING

A. N/A

4.9 CLEANUP

A. Contractor shall maintain a clean Project site during and upon completion of the Work. Cleaning shall be in accordance with these contract documents.

PART 5 - DEFINITIONS AND STANDARDS (General Industry Definitions)

- Abatement: Procedures to control fiber release from asbestos-containing building materials. Includes removal, encapsulation, and enclosure, repair, demolition and renovation activities.

- Air Lock**:** A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area. (See decontamination enclosure system plan in the drawing section of this Contract Document).

- Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time.

- Air Sampling Professional**:** The professional contracted or employed to supervise air monitoring and analysis schemes. This individual is also responsible for recognition of technical deficiencies in Worker protection equipment and procedures during both planning and on-site phases of an abatement project. Acceptable Air Sampling Professionals include Industrial Hygienists, Environmental Engineers and Environmental Scientists with equivalent experience in asbestos air monitoring and worker protection.

- Amended Water: Water to which a surfactant has been added.

- Area Monitoring: Sampling of airborne fiber concentrations within the asbestos work area and outside the asbestos work area which are representative of the airborne concentrations of asbestos fibers which may reach the breathing zone.

- Asbestos: Means fibrous forms of various hydrated minerals including Chrysotile, (fibrous serpentine), Crocidolite (fibrous Riebeckite), Amosite (fibrous Cummintonite-Grunerite), Fibrous Tremolite, fibrous Actinolite, and fibrous Anthophyllite.

- Asbestos-Containing Material (ACM) Material composed of asbestos of any type in an amount greater than 1 percent and by weight, either alone or mixed with other fibrous or non-fibrous materials.

- Asbestos-Containing Construction Material (California definition): Means any manufactured construction material which contains more than 1/10th of 1% asbestos by weight.

- Asbestos Fibers: Asbestos fibers having an aspect ratio of at least 3:1 and 5 micrometers in length.

- Authorized Visitor: COMPTON COMMUNITY COLLEGE DISTRICT's Project Team members, COMPTON COMMUNITY COLLEGE DISTRICT's Representative, Observation Service and any representative of a regulatory or other agency having jurisdiction over the Work.

- Clean Room: An uncontaminated area or room which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.

- Contained Work Area: A Work Area which has been Isolated, Plasticized, and equipped with a Decontamination Enclosure System.

- Curtained Doorway: A device to allow ingress or egress from one area to another while permitting minimal air movement between the areas, typically constructed by placing three overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, and securing the vertical edge of the outer two sheets along the opposite vertical side of the doorway (see detail on Decontamination Enclosure System Plan in the Drawing section of this Project Manual).

- Decontamination Enclosure System: A series of connected rooms, with Air Locks or Curtained Doorways between any two adjacent rooms, for the decontamination of Workers and of materials and equipment. A Decontamination Enclosure System always contains at least one Air Lock to the Work Area (see standard Decontamination Enclosure System Plan in the Drawing section of this Project Manual).

- Encapsulant (sealant): A liquid material which can be applied to Asbestos-Containing material and which controls the possible release of Asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

- Encapsulation: All herein-specified procedures necessary to apply an encapsulant to Asbestos-Containing building materials to control the possible release of Asbestos fibers into the ambient air.

- Enclosure: All herein-specified procedures necessary to enclose completely Asbestos-Containing Material behind airtight, impermeable, permanent barriers.

- Excursion Limit: An exposure of airborne concentrations of Asbestos fibers of one fiber per cubic centimeter of air (1f/cc) as averaged over a sampling period of thirty (30) minutes.

- Equipment Room: A contaminated area or room which is part of the Worker Decontamination Enclosure with provisions for storage of contaminated clothing and equipment.

- Equipment Decontamination Enclosure: That portion of a Decontamination Enclosure System designed for controlled transfer of materials, waste containers and equipment, typically consisting of a Washroom and a Holding Area.

- Friable Asbestos Material (40 CFR, sub-part M Definition): Material that contains more than one percent (1%) asbestos by weight and that can be broken, crumbled, pulverized, or reduced to powder by hand pressure when dry.

- Fixed Object: A unit of equipment or furniture or other building component which cannot be detached from the building or can only be detached by destructive methods resulting in irreparable damage to the item.

- Glove bag Method: A method with limited applications for removing small amounts of friable Asbestos-Containing material from HVAC ducts, short piping runs, valves, joints, elbows, and other non-planar surfaces in an Isolated (non-contaminated) Work Area. The glove bag (typically constructed of six [6] mil transparent WT plastic) has two inward-projecting long sleeve rubber gloves, one inward-projecting WT sleeve, an internal tool pouch, and an attached, labeled receptacle for Asbestos waste. The glove bag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains all Asbestos fibers released during the removal process. All Workers who are permitted to use the Glove bag Method must be highly trained, experienced, and skilled in this method.

- HEPA Filter: A high efficiency particulate air (HEPA) filter capable of trapping and retaining 99.97 percent of all mono-dispersed particles (Asbestos fibers) equal to or greater than 0.3 microns in mass median aerodynamic equivalent diameter.

- HEPA Vacuum Equipment: Vacuuming equipment with a HEPA filter system.

- Holding Area: A room in the Equipment Decontamination Enclosure located between the Washroom and an uncontaminated area. The Holding Area comprises an Air Lock.

- Isolation: The sealing of all openings into a Work Area.

- Isolated (non-contained) Work Area: A Work Area which is Isolated, but has not been Plasticized and may or may not be equipped with a Decontamination Enclosure System.

- Movable Object: A unit of equipment, furniture or other building component which is detached or can be detached from the building without destructive methods or results.

- Negative Air Pressure Equipment: A portable local exhaust system equipped with HEPA filtration and capable of maintaining a constant, low velocity air flow into contaminated areas from adjacent uncontaminated areas.

- Non-friable Asbestos-Containing Material: Material that contains more than one (1) percent Asbestos by weight in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the Asbestos is well bound and will not release fibers during any appropriate end-use, handling, demolition, storage, transportation, processing, or disposal.

- Observation Service: The agent of COMPTON COMMUNITY COLLEGE DISTRICT or COMPTON COMMUNITY COLLEGE DISTRICT's Representative who shall observe the Work, perform tests, verify that abatement methods and procedures specified by the Contract Documents are being complied with, and reports all observations and test results to COMPTON COMMUNITY COLLEGE DISTRICT or COMPTON COMMUNITY COLLEGE DISTRICT's Representative.

- Owner: COMPTON COMMUNITY COLLEGE DISTRICT.

- Permissible Exposure Limit (PEL): An airborne concentration of asbestos, Tremolite, Anthophyllite, Actinolite, or a combination of these minerals in excess of 0.1 fibers per cubic centimeter of air as an eight (8) hour time-weighted average (TWA), as determined by OSHA 29 CFR standards 1926.1101.

- Personal Monitoring: Sampling of Asbestos fiber concentrations within the breathing zone of an Asbestos Worker.

- Plasticize: To cover floors, walls and other structural elements of a Work Area with plastic sheeting as herein specified with all seams securely taped.

- Removal: All herein-specified procedures necessary to remove Asbestos-Containing materials from the designated areas and to dispose of these materials at an acceptable site.

- Shower Room: A room between the Clean Room and the Equipment Room in the Worker Decontamination Enclosure with hot and cold or warm running water, and suitably arranged for complete showering during decontamination. The Shower Room comprises an Air Lock between contaminated and clean areas.

- Surfactant: A chemical wetting agent added to water to reduce surface tension and improve penetration.

- Washroom: A room between the Work Area and the Holding Area in the Equipment Decontamination Enclosure System where equipment and waste containers are decontaminated. The Washroom comprises an Air Lock.

- Wet Cleaning: The process of eliminating Asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as Asbestos-contaminated waste.

- Work Area (Also known as "Regulated Area"): Designated rooms, spaces, or areas of the Project in which Asbestos Abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A Contained Work Area is a Work Area which has been Isolated, Plasticized, and equipped with a Decontamination Enclosure System. An Isolated (non-contaminated) Work Area is a Work Area which is Isolated, but has not been Plasticized and may or may not be equipped with a Decontamination Enclosure System.

- Worker Decontamination Enclosure System: That portion of a Decontamination Enclosure System designed for controlled passage of Workers, and other personnel and Authorized Visitors, typically consisting of a Clean Room, a Shower Room, and an Equipment Room.

END OF SECTION

ASBESTOS ABATEMENT PROJECT SPECIFICATIONS

For:

COMPTON COMMUNITY COLLEGE
MUSIC BUILDING – NAT KING COLE ROOM,
LITTLE RICHARD ROOM AND RAMSEY LEWIS ROOM
HVAC UPGRADE PROJECT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

PRESENTED TO:

COMPTON COMMUNITY COLLEGE DISTRICT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

PRESENTED BY:

BAINBRIDGE
Environmental Consultants

6226 Whittier Boulevard, Suite B
Los Angeles, California 90022
Phone: 213-921-4884
Fax: 714-247-0025

Bainbridge Project #: 18086508.10
August 22, 2018

SECTION 02-82-00 - ASBESTOS ABATEMENT

PART 1 – GENERAL

The work required to be performed by the Contractor comprises the following:

Project Title: Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room – HVAC Upgrade Project
Client: Compton Community College District
Location: 1111 East Artesia Boulevard, Compton, California 90221

1.1 WORK DESCRIPTION

The work included consists of furnishing labor, materials, permits, equipment, services, insurance including, but not limited to, the handling and transportation and disposal of asbestos-containing materials and waste resulting from the removal of asbestos-containing materials in various areas. This work shall be conducted by a licensed abatement contractor and certified personnel in accordance with all applicable Federal, State, and local regulations.

A. Materials and their quantities to be abated shall be verified by the General Contractor/Abatement Contractor prior to the abatement work. Abatement work shall be cross-referenced and shall be coordinated with Compton Community College District. Refer to Bainbridge's Limited Asbestos and Lead-Based Paint XRF Survey Report for Compton Community College District – Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room – HVAC Upgrade Project dated August 22, 2018 for a full and complete description of the materials and locations surveyed. The asbestos-containing materials to be abated, their general location(s) and estimated quantities are follows:

MUSIC BUILDING – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room: Asbestos

Sample No.	Sample Location	Sample Description/Color	Material Location	Approx. Quantity	Laboratory Results
13	Nat King Cole	Wall Panel/White	Nat King Coke, Ramsey Lewis & Little Richard Rooms	1,400 Sq. Ft.	12% Chrysotile
14	Ramsey Lewis	Wall Panel/White	See Above	Included Above	13% Chrysotile
15	Little Richard	Wall Panel/White	See Above	Included Above	13% Chrysotile

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered assumed asbestos containing materials. Approximate quantities are for general information only, not for bidding purposes. Prior to bid, the contractor is responsible for field quantification and verification of all identified and/or assumed asbestos-containing materials.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities; those suspect building materials will be considered asbestos-containing until a State Certified, Asbestos Consultant is retained to determine asbestos content of those materials.

Federal regulations define asbestos-containing materials as any material containing more than one percent (1%) asbestos by weight. California Labor Code, Section 6501.8 defines “asbestos containing construction materials (ACCM)” as any manufactured construction material that contains more than one tenth of one percent (0.1%) asbestos by weight.

B. Asbestos abatement observation services shall be conducted by a third party consultant and shall be contracted directly by Compton Community College District.

C. All applicable codes and regulations revised and updated are made part of these specifications by reference herewith.

1. Code of Federal Regulations (CFR):

40 CFR Part 763	Asbestos Containing Materials In Schools
29 CFR 1910.1001	Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite
29 CFR 1910.1101	Asbestos
29 CFR 1910.1200	Hazard Communication
29 CFR 1910.20	Access to Employee Exposure and Medical Records
29 CFR 1910.132	General Requirements - Personal Protective Equipment
29 CFR 1910.133	Eye and Face Protection
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.145	Specifications for Accident Prevention, Signs and Tags
29 CFR 1926.1101	Asbestos Standard for construction Industry
40 CFR 61	Sub-part A General Conditions
40 CFR 61	Sub-part M National Emission Standards for Asbestos
40 CFR 61.152	Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabrication Operations

2. U. S. Environmental Protection Agency (EPA):

Publication No.	
560/5-85-024	Guidance for Controlling Asbestos-Containing Materials in Buildings

3. National Institute of Occupational Safety and Health (NIOSH):
   Manual of Analytical Methods, 2nd Ed., Vol. 1.
   Physical and Chemical Analysis Method (P&CAM):
   Method 239, Asbestos Fibers in Air
   Method 7400, Fibers (N1, 3rd Ed., Vol. 1.)
4. American National Standard Institute (ANSI):

Z9.2-1979	Fundamentals Governing The Design and Operation of Local Exhaust Systems
Z88.2-1980	Practices for Respiratory Protection

5. National Fire Protection Association (NFPA):

Standard 90A	Installation of Air Conditioning and Ventilation Systems.

6. American Society for Testing Materials (ASTM):

E 849-82	Safety and Health Requirements Relating to Occupational Exposures to Asbestos
P-189	Specifications for Encapsulants for Friable Asbestos-Containing Materials

7. Underwriters Laboratories, Inc. (UL):

586-77 (R1982)	Test Performance of High Efficiency, Particulate, Air Filter Units

8. Title 8 California Code of Regulations (CCR):

Section 1529	Asbestos
Section 5208	General Industry Safety Orders
Section 5144	Respirator Regulations

9. South Coast Air Quality Management District – Rule 1403

10. Local and other regulations

1.2 CONTRACTOR'S QUALITY ASSURANCE

A. Safety Compliance: In addition to detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities and publications regarding handling, storing, transporting, and disposing of asbestos waste materials. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting

the work. Where the requirements of this specification and referenced documents vary, the most stringent requirement shall apply.

B. Contractor shall have at least one copy each of 29 CFR Part 1910 - Occupational Safety and Health Standards, 29 CFR 1926.1101, 40 CFR Part 61, sub-parts A & M, and all pertinent state and local regulations at his office and at the job site.

C. Before the commencement of any work at the site, the contractor shall post EPA and OSHA caution signs in and around the work area to comply with EPA and OSHA regulations.

D. Personal monitoring and other monitoring, which are required by law, or considered necessary by the Contractor for worker protection shall be the responsibility of the Contractor.

E. Area monitoring will be performed by the Observation Service. A predetermined number of air samples will be collected at various stages of the Work, in designated places inside and outside the Work areas.

1.3 SUBMITTALS AND NOTIFICATIONS

A. At the pre-construction meeting, the Contractor shall submit (1) declaration certifying that all Contractors' employees have been adequately trained and (2) a photocopy of training certificates for each employee from their respective training agency or organization. When certified or other formal worker training is required by state or local agencies, Contractor may submit a photocopy of the employee's asbestos worker certification card in lieu of training certificates.

B. Submit at Pre-construction Meeting manufacturer's certification that the respirators to be used in this Project comply with government agency requirements. Contractor's certifications for each employee must clearly state that each employee has been fit tested and properly trained for respirators.

C. Submit proof that all persons providing labor and/or professional services who will be entering abatement work areas have had current (less than one year prior to the date of their participation on the Project) medical examinations. Furnish physician's interpretation of said examinations to the State on the Certificate of Medical Compliance form provided in the Supplementary General Conditions section of these Construction Documents at the Pre-construction Meeting, or prior to that person's commencing work on this Project, and for each person subsequently providing labor and/or professional services at the job site for whom a certificate was not initially furnished. Refer to Article 3.5, A. NOTE: In lieu of the above certificate, current medicals will be acceptable providing that a statement in the medical exam declares that the worker can wear a negative pressure respirator while performing their work. Contractor shall resubmit

physician's interpretation of medical examination for each worker or professional employed by him whose physician or regulatory required annual or employment termination examination becomes due while said worker or professional is participating in the Project. This requirement can be waived or modified only by COMPTON COMMUNITY COLLEGE DISTRICT in writing or verbally, followed up in writing.

D. Immediately after Contractor has received the COMPTON COMMUNITY COLLEGE DISTRICT's Notice of Award, submit manufacturer's catalogue, samples, Material Data Safety Sheets, (MSDS) and other items needed to demonstrate the quality of the proposed abatement materials. Under no circumstances shall proposed materials be used before written approval from COMPTON COMMUNITY COLLEGE DISTRICT, COMPTON COMMUNITY COLLEGE DISTRICT's Representative or Observation Service. Submittals are required if the following materials are proposed:

1. Encapsulant
2. Surfactant
3. Protective packaging
4. Lagging adhesive
5. Glove bags
6. Resaturant
7. Solvents

E. Submit at Pre-construction Meeting proof satisfactory to COMPTON COMMUNITY COLLEGE DISTRICT, or the Observation Service that all required permits have been obtained and notifications have been sent. Contact and notify the following government agencies in writing ten working days prior to the commencement of Work:

1. EPA Regional Asbestos Coordinator,
2. Occupational Safety and Health Administration,
3. Local Air Quality Management District,
4. Local Fire Department if required,

All notifications shall contain as a minimum the following information:

1. Name, address and telephone number of COMPTON COMMUNITY COLLEGE DISTRICT including the contact person.

2. Name, address, EPA numbers, license number and telephone number of the Contractor including the contact person.

3. Name, address and description of the building, including size, age, and prior use of building.

4. The type and quantity of asbestos material involved and the description of the Work.

5. Scheduled starting and completion dates for Abatement Work.

6. Procedures that shall be employed to comply with the regulations.

7. The name, address, EPA number and telephone number of the Transporter.

8. The name and address of the Hazardous Waste Disposal Facility where the Asbestos Waste shall be deposited.

F. Submit at Pre-Construction Meetings copies of all government agency correspondence and proof of delivery. No work shall commence until verification of required notifications is made by the Observation Service.

G. Submit at Pre-construction Meeting the method of transport of hazardous and non-hazardous waste, including the name, address, EPA ID number, and telephone number of the transporter(s).

H. Submit for approval at the Pre-construction Meeting the name, address, EPA ID number, and telephone number of the hazardous and non-hazardous waste disposal facility(s) to be used.

I. Submit at the Pre-construction Meeting for approval a detailed plan of the work procedures to be used in the abatement of the asbestos-containing materials. The asbestos plan must be approved in writing by the Observation Service and COMPTON COMMUNITY COLLEGE DISTRICT before the start of any work, including work mobilization. The plan shall include:

1. Location of Asbestos Work Areas.

2. Layout and construction details of Decontamination Enclosure Systems.

3. Project schedule including critical paths, interface of other trades, and completion dates of abatement stages and work areas.

4. Personal air monitoring procedures.

5. Detailed description of the method to be employed in order to control pollution, including negative air equipment calculations.

6. Names of Superintendent, Foremen, Project Manager and other key personnel, and their day time, emergency telephone numbers and pagers.

7. Security Plan including sketches necessary to clearly describe the plan.

8. Emergency evacuation plan for injured workers, compressor failure, fire and other emergencies.

J. Submit at Pre-construction Meeting manufacturer's certification that vacuums, equipment filters, and other local exhaust ventilation equipment conform to ANSI Z9.2-1979.

K. Provide proof of Contractor's License and Asbestos Certification from the Contractor Licensing Board, and proof of registration with the Division of Occupational Safety and Health in accordance with California Labor Code, Section 6501.

PART 2 - PRODUCTS

2.1 GENERAL

A. Contractor shall furnish, provide and utilize the following products in the Work as specified herein.

B. The Work is based on the materials, equipment and methods described in these specifications. COMPTON COMMUNITY COLLEGE DISTRICT or the Observation Service will consider proposals for substitutions of materials and equipment only when such proposals are accompanied by written technical product data.

C. No materials or equipment shall be substituted unless approved in writing by COMPTON COMMUNITY COLLEGE DISTRICT or the Observation Service.

2.2 PROTECTIVE COVERING (PLASTIC) AND DISPOSAL BAGS

A. Shall be fire retardant plastic or equivalent with a thickness of ten mil, six mil, four mil and three mil polyethylene sheets. Disposal bags shall be pre-printed with labels as required by CFR 40 Part 60 or applicable CAL-OSHA requirements.

2.3 TAPE AND GLUE

A. Duct Tape 2" or wider, or equal, and capable of sealing joints of adjacent sheets of plastic, and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials. The bonding strength and seal must not be affected by mist, water, encapsulating agent or any other materials used in the work.

2.4 PROTECTIVE PACKAGING

A. Appropriately labeled clear, double six (6) mil sealable polyethylene bags as a minimum.

B. Bilingual labels (English and other appropriate language) on containment glove bags, waste packages, contaminated material packages and other containers shall be in accordance with EPA or OSHA standards.

2.5 WARNING LABELS AND SIGNS

A. As required by 29 CFR 1910.1001, 29 CFR 1910.1200, 29 CFR 1926.58 and other pertinent state and local codes and regulations.

2.6 WETTING AGENT OR SURFACTANT

A. Surfactant, or wetting agent, for amending water will be 50 percent polyoxyethylene polyglycol ether and 50 percent polyoxyethylene ether, or equivalent, at a concentration of one (1) ounce per five (5) gallons of water. The material must be odorless, non-flammable, non-toxic, non-irritant and non-carcinogenic.

2.7 ENCAPSULATING SEALER

A. Shall be a penetrating or bridging type, pollution-free, water based, non-toxic, with a Class A fire classification as specified herein. Encapsulants with the ingredient Methylene Chloride are not acceptable unless the contractor can prove to COMPTON COMMUNITY COLLEGE DISTRICT’s satisfaction that equal substitute materials are not available. If substitutes are not used, the Contractor shall submit with the asbestos plan, for approval, respiratory protection and negative air discharge procedures to protect workers, authorized personnel and the public from Methylene Chloride exposure. Material shall be flexible when cured, resistant to weathering, oxidation, aging and abuse.

2.8 LAGGING ADHESIVE

A. Shall meet NFPA 90A Code, such as Arabol, Childers CP52, Insul-Coustic 102, or approved equal.

2.9 TOOLS AND EQUIPMENT

A. Provide suitable tools for asbestos removal and encapsulation.

B. HEPA vacuums shall comply with ANSI Z9.2-1979

C. Ladders and scaffolds shall be of required OSHA dimensions and quantities so that all work surfaces can be easily and safely accessed.

D. Electrical equipment shall be UL-listed and approved, and shall have ground-fault interrupt.

E. Airless spray equipment shall have a nozzle pressure with an adjustable range of 400-1500 psi.

PART 3 - REQUIREMENTS FOR WORKER PROTECTION

3.1 TRAINING PROGRAM

A. Each employee shall receive training in the proper handling of materials that contain asbestos, including all aspects of work procedures and protective measures, use of protective clothing and respiratory protection, use of showers, entry and exit procedures from Work areas and in OSHA regulations. Each employee shall also understand the health implications and risks involved, including the illness possible from exposure to airborne asbestos fibers and the increased risk of lung cancer associated with smoking cigarettes and asbestos exposure, understand the use and limits of the respiratory equipment to be used, and understand the purpose of medical surveillance and the monitoring of airborne quantities of asbestos as related to health and respiratory equipment. The training program shall comply with federal, state and local regulatory requirements.

B. Emergency evacuation procedures to be followed in the event of Worker injury or shall be included in the worker training program.

3.2 DRESS AND EQUIPMENT

A. Work clothes shall consist of disposable full-body coveralls, head covers, boots, rubber gloves or equivalent. Sleeves at wrists and cuffs at ankles shall be secured. Fire retardant full-body coveralls are required in areas of open flame, or where required by local regulations.

B. Eye protection and hard hats shall be available as appropriate or as required by applicable safety regulations.

C. Provide authorized visitors with suitable protective clothing, headgear, eye protection, and footwear whenever they are required to enter the Work area.

3.3 RESPIRATORS

A. Respiratory protective equipment shall be MSHA/NIOSH approved in accordance with the provisions of 30 CFR Part 11. Respiratory instructions shall be posted in the clean room or work area.

B. Half-mask or full-face air-purifying respirators with HEPA filters may be worn during the preparation and work being performed.

C. The Contractor shall provide Workers with approved, permanently personally-issued and marked respirators with changeable filters. The Contractor shall provide a sufficient quantity of filters approved for Asbestos so that Workers can change filters during the workday. Filters shall not be used any longer than one (1) workday or whenever an increase in breathing resistance is detected. The respirator filters shall be stored at the job site in the Clean Room and shall be totally protected from exposure to asbestos before their use.

D. Workers shall always wear a respirator, properly fitted on the face, in the Work Area, from the start of preparation work until all areas have been given written clearance by the Observation Service.

3.4 WORKER PROTECTION PROCEDURES

Bilingual (English and other appropriate language) Worker protection procedures must be posted in the Clean Room or Work Area. If the first language of all Workers is English, the bilingual procedures are accepted.

A. Each Worker and Authorized Visitor shall, upon entering the job site: remove street clothes and put on a respirator and clean protective clothing before entering the Work Area.

B. All Workers shall, each time they leave the Work Area: remove gross contamination from clothing before leaving the Work Area; proceed to the Equipment Room and remove all clothing except respirators; still wearing the respirator, proceed naked to the showers; clean the outside of the respirator with soap and water while showering; remove the respirator; thoroughly shampoo and wash themselves.

C. Following showering and drying off, each Worker shall proceed directly to the Clean Room and dress in their personal clothing. Before reentering the Work Area, each Worker and Authorized Visitor shall put on a clean respirator and shall dress in clean protective clothing.

D. Contaminated protective clothing and work footwear shall be stored in the Equipment Room when not in use in the Work Area. At appropriate times or upon

completion of Asbestos Abatement, dispose of protective clothing and footwear as contaminated waste, or launder in accordance with government regulations.

E. Workers removing waste containers from the Equipment Decontamination Enclosure shall enter the Holding Area from outside wearing a respirator and dressed in clean disposable coveralls. No Worker shall use this system as a means to leave or enter the Washroom or the Work Area.

F. The disposable clothing worn outside the Work Area shall be of different color or markings from the disposable clothing worn inside the Work Area.

G. Workers shall not eat, drink, smoke, or chew gum or tobacco while in the Work Area. Workers and Authorized Visitors with beards or who are unshaven shall not enter the Work Area.

3.5 MEDICAL DOCUMENTS

A. Before exposure to airborne Asbestos, the Contractor will provide each employee providing labor or professional services at the Project site with a current comprehensive medical exam, including a history of respiratory and gastrointestinal diseases, meeting the general definition outlined in 29 CFR 1910.1001, 29 CFR 1910.134, 29 CFR 1926.1101 and California Administrative Code Title 8, CAC Section 5208, page 442.2.l sub-part 1. The contractor shall submit a current medical examination report. The medical report shall contain a statement from the examining physician that the employee can function normally wearing a respirator or that the safety or health of the employee or other employees will not be impaired by his use of a respirator. No employee will be allowed to enter the Work Area without having first provided the completed copy of their medical examination to COMPTON COMMUNITY COLLEGE DISTRICT's Representative and until the medical report has been approved by the Observation Service.

3.6 EMPLOYEE IDENTIFICATION

A. Each employee shall bring to the job at least two forms of identification, one of which has his/her photograph.

PART 4 - WORK EXECUTION - ASBESTOS ABATEMENT PROCEDURES

4.1 WORK AREA PREPARATION AND REMOVAL FOR ASBESTOS MATERIALS

A. Preparation procedures for the Work including the removal the asbestos-containing materials and associated debris. Removal of these materials or other friable asbestos-containing materials**,** unless specified otherwise, shall be executed inside a fully "Contained" Work area.

1. All surfaces and fixed objects including carpets in the Work areas shall be pre-cleaned using HEPA filtered vacuums and/or wet cleaning methods as appropriate. Methods that would raise dust, such as dry sweeping or vacuuming with equipment with non HEPA filters must not be used. Asbestos-containing materials must not be disturbed during the pre-cleaning phase.

2. Contractor shall isolate the Work area for the duration of the Work by sealing all openings including, but not limited to, HVAC ducts, diffusers and grilles, skylights, doorways, and windows, with six (6) mil polyethylene taped securely to a clean surface. Spray adhesive, used on finished surfaces, should be avoided where possible. Construct barriers that enclose or separate Work Areas with wood or metal framing members and sheathed with 3/8" min. plywood. Barriers shall form a seal at vertical walls and at the floor deck above and below.

3. HVAC systems shall be shut down. Contractor shall design the Work area preparation and engineering controls as specified and/or as required to prevent damage to and contamination of the affected HVAC system. Contractor shall remove HVA system filters, and pack them in protective six (6) mil polyethylene sheeting for proper disposal. The Contractor shall install new filters upon completion of all Work.

4. Contractor shall remove all movable objects including but not limited to carpets from the Work area. All fixed and movable objects requiring cleaning shall be washed with amended water or cleaned with a HEPA filtered vacuum.

5. Clean and cover fixed and movable objects that remains in the Work area with six (6) mil polyethylene sheeting taped securely in place.

6. The objects removed shall be stored in a location designated by COMPTON COMMUNITY COLLEGE DISTRICT, and in a manner that will prevent contamination or damage to the objects. Damaged and missing objects will be replaced by the Contractor at his own expense and to the satisfaction of COMPTON COMMUNITY COLLEGE DISTRICT.

7. Seal and protect all light fixtures, exit signs and other electrical items, etc., that will remain within the Work area, with six (6) mil polyethylene, taped securely. The polyethylene cover shall be kept away from heat-generating electrical devices where fire or damage to the device is possible. Light fixtures and all other electrical items shall be thoroughly cleaned before covering.

8. Install 2' x 2' plexiglass observation window(s) at strategic location(s) in the "Containment" barrier to allow observation of work from outside the Work Area.

9. Seal all wall, plumbing, duct and other cavities to prevent asbestos materials contamination "fallout" from falling into cavities during the Work.

10. The Contractor shall check regularly (at beginning, middle and end of each shift as a minimum) all polyethylene isolation and containment (protective) barriers for punctures, loose seals, contact with heat-generating devices, etc. Problem areas shall be repaired or mended immediately.

11. Maintain existing emergency exits from the building**.** Maintain a minimum of two (2) exits from Work Areas where possible. The first exit shall be the Worker the Decontamination Enclosure System. The second exit may be the Equipment Decontamination Enclosure System or a ripcord type, emergency only exit in the plastic containment at a door, window or other appropriate location. Exits, where possible, shall be on opposite ends of the Work Area. All exits shall be labeled in bright letters or signage. The second exit shall be labeled "Emergency Exit Only." Establish alternative exits satisfactory to fire officials where existing building or Work Area emergency exits are unavoidably blocked by activities of this project.

12. Provide and maintain appropriate fire extinguishers inside and outside the Work.

13. All electrical power must be shut down during the wet removal or encapsulation phase of the Work. Provide temporary power and lighting when necessary, and ensure safe installation of temporary power sources and equipment per applicable electrical code requirements including appropriate ground fault protection. Temporary light fixtures will be explosion proof. Provide and maintain auxiliary diesel generator equipment where existing facility power is insufficient. Locate generator or vent generator exhaust in a manner that will prevent carbon monoxide hazards to workers and the public. When power shutdown is required, the Contractor shall check for conditions where shutdown will pose a danger to the building or to the building's components. Contractor shall take all precautions necessary, including inspections and testing, to insure the safety of his employees and other building occupants from electrical hazards during the course of the Work. Existing fire, smoke detection and other life safety systems shall be kept in operation at all times, or, the Contractor shall install and maintain a temporary system or alternate acceptable to COMPTON COMMUNITY COLLEGE DISTRICT and local fire officials.

14. The Contractor shall install and maintain negative air pressure equipment during the abatement and decontamination phases of the Work until the clearance test has passed. A sufficient amount of air shall be exhausted by the unit(s) to create a pressure of -0.02 inches of water within the Work area with respect to the area outside the Work area. A backup negative air unit must be in place in the event that the initial unit fails. In the event of a power failure, the backup emergency unit must be self-starting with a diesel generator back-up power. Locate the generator or vent generator exhaust in a manner that will prevent carbon monoxide hazards to workers and others in the building When more than one negative air pressure unit is required, emergency power back-up is required for at least half of all the units.

15. Install and maintain a manometer from the time abatement begins until the clearance test has passed in all Work areas. All ratings must be recorded in writing for the duration of the Work. Report the readings to the Observation Service at the start and end of each work shift.

16. Notify the Observation Service twenty-four hours in advance of when preparatory steps will be completed. Asbestos Abatement Work shall not commence until: all preparation requirements have been completed; all tools, equipment, and materials are on hand; all required submittals, notices and permits have been approved, and until the Observation Service authorizes that Work may commence.

17. Daily log: Maintain for the duration of the project from the first disturbance of asbestos-containing material, a sign-in/sign-out log. All persons performing work or visiting the site must print, sign, and date the logbook along with their company name showing duration at work site.

B. Removal procedures for "Contained" Work:

1. Remove all visible accumulations of asbestos material and debris. Wet-clean all surfaces within the Work area to remove asbestos residue.

2. Upon completion of the cleaning, the Contractor shall perform a complete visual inspection of the Work area to ensure that the Work area is free of any visible debris or residue.

3. Upon completion of the visual inspection, the Contractor shall notify the Observation Service in advance that the Work area is ready for an inspection.

4. Upon proper notification, the Observation Service will inspect the Work area for general conformance with the Specifications. Any

nonconformance of the Work shall be remedied by the Contractor until the Work area is in compliance, and at the Contractor's expense.

5. Once the inspection is performed and the Work is approved by the Observation Service, the Contractor shall encapsulate the surfaces where asbestos materials have been removed. All surfaces within ceiling and other accessible cavities where spray-applied or trowel-applied materials have been removed shall also be encapsulated. The encapsulant shall be compatible with the existing substrate and replacement materials and shall be rated to safely withstand the temperature of the items to which it will be applied.

6. Upon completion of the encapsulation work, the Contractor shall notify the Observation Service in advance that the encapsulated surfaces are ready for inspection.

7. Upon proper notification, the Observation Service will inspect the encapsulated surfaces for general conformance with the Specifications. Any nonconformance of the Work shall be remedied by the Contractor until the Work is in compliance and at the Contractor's expense.

8. Upon successful compliance with the encapsulation inspection by the Observation Service, the Contractor shall remove the outer layer of plastic on the walls, floors, and ceilings (where applicable). The inner plastic layer and isolation barriers on vents, grilles, diffusers, etc., shall remain in place.

9. The Contractor shall repeat the necessary steps to remedy and correct the decontamination and encapsulation procedures in the event that the Contractor does not pass the inspection as conducted by the Observation Service. Remedial work shall be conducted by the Contractor at the Contractor's expense.

10. Wet-clean the Work area, wait twenty-four hours to allow for the settlement of dust, and again wet-clean, or clean with HEPA vacuum equipment, all surfaces within the Work area. After completing the second cleaning operation the Contractor shall perform a complete visual inspection of the Work Area to ensure that the Work Area is free of contamination.

11. Sealed drums and bags, and all equipment used in the Work area, shall be included in the cleanup and shall be removed from the Work area via the equipment decontamination enclosure system, at the appropriate time in the cleaning sequence.

12. Upon completion of the second cleaning operation, the Contractor shall notify the Observation Service twenty-four hours in advance that the Work

area is ready for final inspection and air clearance testing. Contamination found during the final inspection shall be remedied by the Contractor at his expense.

13. Upon notification from the Observation Service that the Work area has passed the clearance testing, the Contractor shall proceed**,** where applicable in the Contract, the application of asbestos-free replacement materials and re-establish objects and systems as specified in these specifications. The inner plastic layer and isolation barriers may be removed by the Contractor at any time after the Work Area inspection has passed the clearance testing.

14. Upon completion of the application of replacement materials (where applicable), or after the removal of the inner plastic layer, isolation barriers and the re-establishment of objects and systems, the Contractor shall notify the Observation Service twenty-four hours in advance that the Work area is ready for Review.

15. Upon notification, the Observation Service and COMPTON COMMUNITY COLLEGE DISTRICT's Representative will review the Work area. Improper application of replacement materials, unapproved damage to the facility or its contents, or improper re-establishment of objects and systems discovered during the review shall be itemized on a punch list for correction by the Contractor at his expense. If no deficiencies are discovered the Contract or this portion of the Contract shall be approved in writing by the Observation Service and COMPTON COMMUNITY COLLEGE DISTRICT's Representative as complete. If deficiencies are noted, continue with the subsequent procedures.

16. Upon correction of the punch list deficiencies the Contractor shall notify the Observation Service and COMPTON COMMUNITY COLLEGE DISTRICT's Representative in advance that the Work area is ready for final review.

Upon notification, the Observation Service and COMPTON COMMUNITY COLLEGE DISTRICT's Representative will review the corrected Punch List deficiencies. If deficiencies have not been properly corrected, the Contractor shall repeat, at his expense, the above mentioned procedures until all deficiencies have been corrected and approved.

4.2 DECONTAMINATION ENCLOSURE SYSTEMS

A. Decontamination enclosure system for asbestos abatement work in "Contained" Work areas:

1. Construct a decontamination enclosure system for the Work area consisting of three separate enclosed chambers as follows:

   a. Equipment chamber with an air lock to the Work area and a curtained doorway to the shower room.

   b. Shower chamber with two curtained doorways, one to the equipment chamber and one to the clean chamber. The shower chamber shall contain one shower with hot and cold or warm water. Careful attention shall be paid to the shower enclosure to ensure against air and water leaks. Trap shower waste using filters having a maximum pore size of 1.0 micron, and drain into a sanitary sewer. Replace filters when they become clogged. Ensure a supply of soap and disposable towels at all times in the shower chamber.

   c. Clean chamber with one curtained doorway into the shower and one entrance or exit to non-contaminated areas of the building. The clean chamber shall have sufficient space for storage of the worker's street clothes, towels, and other non-contaminated items.

2. Construct an equipment decontamination enclosure system consisting of two totally enclosed chambers as follows:

   a. Washroom with an air lock to a designated staging area of the Work Area and a curtained doorway to the holding chamber.

   b. Holding chamber with a curtained doorway to the washroom and a doorway to an uncontaminated area.

4.3 DISPOSAL

A. Waste Transportation: Submit the method of transport of hazardous and non-hazardous waste including name, address, EPA I.D. number and telephone number of transporter.

B. Waste Site: Submit for approval the name, class, address, EPA I.D. number and telephone number of hazardous waste site(s) to be utilized for disposal.

C. Waste Manifest: Submit for approval at the Pre-Construction meeting a filled out Waste Manifest form. For Waste Manifest purposes the Generator is the facility of the subject work. Obtain necessary information for this purpose from COMPTON COMMUNITY COLLEGE DISTRICT. Give a copy of the Waste Manifest to Observation Service for each required shipment.

D. Containers to be loaded for transportation from the Holding Area must be removed by Workers who have entered from uncontaminated areas, dressed in clean overalls. Workers must not enter from the Holding Area into the Washroom or the Work Area.

1. The sealed asbestos containers shall be delivered to Contractor's pre designated approved non-hazardous waste site for burial; in accordance with local Air Pollution Control District Regulations.

E. Notify COMPTON COMMUNITY COLLEGE DISTRICT 48 hours in advance of the time when asbestos materials are to be removed from the site.

F. Contractor shall be responsible for safe handling and transportation of waste generated by this Contract to the designated waste site.

G. Contractor shall hold COMPTON COMMUNITY COLLEGE DISTRICT harmless for claims, damages, losses, and expenses against COMPTON COMMUNITY COLLEGE DISTRICT, including attorney's fees arising out of or resulting from asbestos spills on the site or spills on route to the disposal site.

4.4 ASBESTOS WHICH REMAINS

A. For asbestos-containing materials which cannot be removed as originally specified in these Contract Documents:

1. Apply a mist of encapsulating sealer into concealed areas with an airless sprayer, set at low pressure, to obtain absorption, good coverage, and penetration.

2. Contractor shall follow safety precautions required by manufacturer when handling sealer.

4.5 AIR MONITORING AND TESTING

A. Area Air Monitoring:

1. Throughout the removal and cleaning operations, area air monitoring shall be conducted by the Observation Service to ensure that the Contractor's work practices are minimizing worker and public exposures to airborne asbestos fibers in accordance with applicable codes, regulations, and ordinances. Fiber counting shall be done by the PCM Method No. 7400 established by NIOSH, with the following as minimum samples recommended by the EPA:

Areas To Be Sampled	Minimum No of Samples	Minimum Volume
Benchmark	1/work area	1300L
Work Area	1/work shift	1300L
Adjacent to Work Area	1/work shift	1300L
At Negative Air Equipment Exhaust	1/work shift	1300L

2. The Observation Service shall report the area air monitoring results to the Contractor on the following day. If area air monitoring results are exceed the required threshold, the Contractor shall make changes in their work practices to assure compliance with the following standards. Unsatisfactory results are fiber counts within the Work area in excess of the maximum acceptable level (0.1 fibers/cc) or fiber counts outside the Work area in excess of the benchmark.

B. Contractor Personal Air Monitoring:

1. The Contractor shall perform periodic personnel air monitoring at their own cost. Initial and periodic eight (8) hour TWA and thirty (30) minute excursion limit air monitoring of Worker exposures to airborne concentrations of asbestos fibers shall be in accordance with OSHA - CFR 1926.1101 requirements.

2. The Contractor shall report personal monitoring results to the Observation Service within 24 hours from the end of each work shift. Worker exposures to airborne asbestos concentrations shall not exceed the permissible exposure limit (PEL) of 8-hour time-weighted average (TWA) of 0.1 fibers per cubic centimeter of air, or the 1f/cc 30-minute period excursion limit.

C. Clearance Testing:

1. Regulated/Demarcated Areas: The Contractor will not be released until final visual and air sampling are performed according to Phase Contrast Microscopy (PCM) Methods (dependent on the quantity of ACM removed in each regulated area) in accordance with the guidelines set forth in the Occupations Safety and Health Administration’s Title 8 1529.

2. If the air tests show that the Work area has not been decontaminated, the Contractor must repeat the cleaning and/or encapsulation application until the Work area is cleaned to the satisfaction of the Observation Service.

The contractor will be released only after final air clearance according to the AHERA air clearance criteria has been achieved.

4.6 REIMBURSEMENT OF COSTS OF COMPTON COMMUNITY COLLEGE DISTRICT OR THE OBSERVATION SERVICE

A. In the event that inspections and/or air testing by the Observation Service or regulatory agencies shows that the Work area or any portion of the Work area is not decontaminated or if the Work is not in conformance with the Contract Documents, COMPTON COMMUNITY COLLEGE DISTRICT and the Observation Service will record all time, tests and project related expenses spent to monitor the Work until the work is in compliance. All time, and expenses recorded by COMPTON COMMUNITY COLLEGE DISTRICT and the Observation Service to monitor the above work, and all time, tests and project related expenses incurred by COMPTON COMMUNITY COLLEGE DISTRICT and the Observation Service beyond the contract time shall, at the discretion of COMPTON COMMUNITY COLLEGE DISTRICT, be paid for by the Contractor. The Contractor, promptly upon receipt of the invoice from COMPTON COMMUNITY COLLEGE DISTRICT, or the Observation Service, shall reimburse COMPTON COMMUNITY COLLEGE DISTRICT at the normal billing rate of COMPTON COMMUNITY COLLEGE DISTRICT or the Observation Service or the COMPTON COMMUNITY COLLEGE DISTRICT is authorized to withhold funds from the Contract for all time spent by the COMPTON COMMUNITY COLLEGE DISTRICT and the Observation Service.

4.7 STOPPING THE WORK

A. If, at any time, the Observation Service decides that work practices are violating pertinent regulations, these contract documents or, in their opinion, endangering workers or the public, the Observation Service will immediately notify the Contractor that operations shall cease until corrective action is taken, and the Contractor shall take such corrective action before proceeding with the Work.

Cost for losses or damages due to a stop of the work shall be borne by the Contractor.

4.8 REPAIR AND PAINTING

A. N/A

4.9 CLEANUP

A. Contractor shall maintain a clean Project site during and upon completion of the Work. Cleaning shall be in accordance with these contract documents.

PART 5 - DEFINITIONS AND STANDARDS (General Industry Definitions)

- Abatement: Procedures to control fiber release from asbestos-containing building materials. Includes removal, encapsulation, and enclosure, repair, demolition and renovation activities.

- Air Lock**:** A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area. (See decontamination enclosure system plan in the drawing section of this Contract Document).

- Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time.

- Air Sampling Professional**:** The professional contracted or employed to supervise air monitoring and analysis schemes. This individual is also responsible for recognition of technical deficiencies in Worker protection equipment and procedures during both planning and on-site phases of an abatement project. Acceptable Air Sampling Professionals include Industrial Hygienists, Environmental Engineers and Environmental Scientists with equivalent experience in asbestos air monitoring and worker protection.

- Amended Water: Water to which a surfactant has been added.

- Area Monitoring: Sampling of airborne fiber concentrations within the asbestos work area and outside the asbestos work area which are representative of the airborne concentrations of asbestos fibers which may reach the breathing zone.

- Asbestos: Means fibrous forms of various hydrated minerals including Chrysotile, (fibrous serpentine), Crocidolite (fibrous Riebeckite), Amosite (fibrous Cummintonite-Grunerite), Fibrous Tremolite, fibrous Actinolite, and fibrous Anthophyllite.

- Asbestos-Containing Material (ACM) Material composed of asbestos of any type in an amount greater than 1 percent and by weight, either alone or mixed with other fibrous or non-fibrous materials.

- Asbestos-Containing Construction Material (California definition): Means any manufactured construction material which contains more than 1/10th of 1% asbestos by weight.

- Asbestos Fibers: Asbestos fibers having an aspect ratio of at least 3:1 and 5 micrometers in length.

- Authorized Visitor: COMPTON COMMUNITY COLLEGE DISTRICT's Project Team members, COMPTON COMMUNITY COLLEGE DISTRICT's Representative, Observation Service and any representative of a regulatory or other agency having jurisdiction over the Work.

- Clean Room: An uncontaminated area or room which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.

- Contained Work Area: A Work Area which has been Isolated, Plasticized, and equipped with a Decontamination Enclosure System.

- Curtained Doorway: A device to allow ingress or egress from one area to another while permitting minimal air movement between the areas, typically constructed by placing three overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, and securing the vertical edge of the outer two sheets along the opposite vertical side of the doorway (see detail on Decontamination Enclosure System Plan in the Drawing section of this Project Manual).

- Decontamination Enclosure System: A series of connected rooms, with Air Locks or Curtained Doorways between any two adjacent rooms, for the decontamination of Workers and of materials and equipment. A Decontamination Enclosure System always contains at least one Air Lock to the Work Area (see standard Decontamination Enclosure System Plan in the Drawing section of this Project Manual).

- Encapsulant (sealant): A liquid material which can be applied to Asbestos-Containing material and which controls the possible release of Asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

- Encapsulation: All herein-specified procedures necessary to apply an encapsulant to Asbestos-Containing building materials to control the possible release of Asbestos fibers into the ambient air.

- Enclosure: All herein-specified procedures necessary to enclose completely Asbestos-Containing Material behind airtight, impermeable, permanent barriers.

- Excursion Limit: An exposure of airborne concentrations of Asbestos fibers of one fiber per cubic centimeter of air (1f/cc) as averaged over a sampling period of thirty (30) minutes.

- Equipment Room: A contaminated area or room which is part of the Worker Decontamination Enclosure with provisions for storage of contaminated clothing and equipment.

- Equipment Decontamination Enclosure: That portion of a Decontamination Enclosure System designed for controlled transfer of materials, waste containers and equipment, typically consisting of a Washroom and a Holding Area.

- Friable Asbestos Material (40 CFR, sub-part M Definition): Material that contains more than one percent (1%) asbestos by weight and that can be broken, crumbled, pulverized, or reduced to powder by hand pressure when dry.

- Fixed Object: A unit of equipment or furniture or other building component which cannot be detached from the building or can only be detached by destructive methods resulting in irreparable damage to the item.

- Glove bag Method: A method with limited applications for removing small amounts of friable Asbestos-Containing material from HVAC ducts, short piping runs, valves, joints, elbows, and other non-planar surfaces in an Isolated (non-contaminated) Work Area. The glove bag (typically constructed of six [6] mil transparent WT plastic) has two inward-projecting long sleeve rubber gloves, one inward-projecting WT sleeve, an internal tool pouch, and an attached, labeled receptacle for Asbestos waste. The glove bag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains all Asbestos fibers released during the removal process. All Workers who are permitted to use the Glove bag Method must be highly trained, experienced, and skilled in this method.

- HEPA Filter: A high efficiency particulate air (HEPA) filter capable of trapping and retaining 99.97 percent of all mono-dispersed particles (Asbestos fibers) equal to or greater than 0.3 microns in mass median aerodynamic equivalent diameter.

- HEPA Vacuum Equipment: Vacuuming equipment with a HEPA filter system.

- Holding Area: A room in the Equipment Decontamination Enclosure located between the Washroom and an uncontaminated area. The Holding Area comprises an Air Lock.

- Isolation: The sealing of all openings into a Work Area.

- Isolated (non-contained) Work Area: A Work Area which is Isolated, but has not been Plasticized and may or may not be equipped with a Decontamination Enclosure System.

- Movable Object: A unit of equipment, furniture or other building component which is detached or can be detached from the building without destructive methods or results.

- Negative Air Pressure Equipment: A portable local exhaust system equipped with HEPA filtration and capable of maintaining a constant, low velocity air flow into contaminated areas from adjacent uncontaminated areas.

- Non-friable Asbestos-Containing Material: Material that contains more than one (1) percent Asbestos by weight in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the Asbestos is well bound and will not release fibers during any appropriate end-use, handling, demolition, storage, transportation, processing, or disposal.

- Observation Service: The agent of COMPTON COMMUNITY COLLEGE DISTRICT or COMPTON COMMUNITY COLLEGE DISTRICT's Representative who shall observe the Work, perform tests, verify that abatement methods and procedures specified by the Contract Documents are being complied with, and reports all observations and test results to COMPTON COMMUNITY COLLEGE DISTRICT or COMPTON COMMUNITY COLLEGE DISTRICT's Representative.

- Owner: COMPTON COMMUNITY COLLEGE DISTRICT.

- Permissible Exposure Limit (PEL): An airborne concentration of asbestos, Tremolite, Anthophyllite, Actinolite, or a combination of these minerals in excess of 0.1 fibers per cubic centimeter of air as an eight (8) hour time-weighted average (TWA), as determined by OSHA 29 CFR standards 1926.1101.

- Personal Monitoring: Sampling of Asbestos fiber concentrations within the breathing zone of an Asbestos Worker.

- Plasticize: To cover floors, walls and other structural elements of a Work Area with plastic sheeting as herein specified with all seams securely taped.

- Removal: All herein-specified procedures necessary to remove Asbestos-Containing materials from the designated areas and to dispose of these materials at an acceptable site.

- Shower Room: A room between the Clean Room and the Equipment Room in the Worker Decontamination Enclosure with hot and cold or warm running water, and suitably arranged for complete showering during decontamination. The Shower Room comprises an Air Lock between contaminated and clean areas.

- Surfactant: A chemical wetting agent added to water to reduce surface tension and improve penetration.

- Washroom: A room between the Work Area and the Holding Area in the Equipment Decontamination Enclosure System where equipment and waste containers are decontaminated. The Washroom comprises an Air Lock.

- Wet Cleaning: The process of eliminating Asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as Asbestos-contaminated waste.

- Work Area (Also known as "Regulated Area"): Designated rooms, spaces, or areas of the Project in which Asbestos Abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A Contained Work Area is a Work Area which has been Isolated, Plasticized, and equipped with a Decontamination Enclosure System. An Isolated (non-contaminated) Work Area is a Work Area which is Isolated, but has not been Plasticized and may or may not be equipped with a Decontamination Enclosure System.

- Worker Decontamination Enclosure System: That portion of a Decontamination Enclosure System designed for controlled passage of Workers, and other personnel and Authorized Visitors, typically consisting of a Clean Room, a Shower Room, and an Equipment Room.

END OF SECTION

LEAD-BASED PAINT ABATEMENT PROJECT SPECIFICATIONS

For:

COMPTON COMMUNITY COLLEGE
MUSIC BUILDING – NAT KING COLE ROOM,
LITTLE RICHARD ROOM AND RAMSEY LEWIS ROOM
HVAC UPGRADE PROJECT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

PRESENTED TO:

Compton Community College District
1111 East Artesia Boulevard
Compton, California 90221

PRESENTED BY:

BAINBRIDGE
Environmental Consultants

6226 Whittier Boulevard, Suite B
Los Angeles, California 90022
Phone: 213-921-4884
Fax: 714-247-0025

Bainbridge Project #: 18086508.10
August 22, 2018

SECTION 02-83-00 – LEAD ABATEMENT

PART 1 – GENERAL

The work required to be performed by the Contractor comprises the following:

Project Title: Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room – HVAC Upgrade Project
Client: Compton Community College District
Location: 1111 East Artesia Boulevard, Compton, California 90221

1.1 WORK DESCRIPTION

The work included consists of furnishing labor, materials, permits, equipment, services, insurance including but not limited to the handling and transportation and disposal of lead-containing materials and waste resulting from the removal of lead-containing materials in various areas. This work shall be conducted by a licensed abatement contractor and certified personnel in accordance with all applicable Federal, State, and local regulations.

A. Materials and their quantities to be abated shall be verified by the General Contractor/Abatement Contractor prior to the abatement work. Abatement work shall be cross-referenced and shall be coordinated with Compton Community College District. Refer to Bainbridge's Limited Asbestos and Lead-Based Paint XRF Survey Report for Compton Community College District – Music Building – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room – HVAC Upgrade Project dated August 22, 2018 for a full and complete description of the materials and locations surveyed. The lead-containing materials to be abated and their general location(s) and estimated quantities are as follows:

MUSIC BUILDING – Nat King Cole Room, Little Richard Room and Ramsey Lewis Room: Lead-based Paint

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
13	D	Music	Nat King Cole	Door Frame	Wood	Gray	1.1	Positive	150 Lin. Ft.
15	D	Music	Ramsey Lewis	Door Frame	Wood	Gray	1.0	Positive	See No. 13
17	D	Music	Little Richard	Door Frame	Wood	Gray	1.0	Positive	See No. 13

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered assumed lead-based paint containing materials. Approximate quantities are for general information only, not for bidding purpose. Prior to bid, the contractor is responsible for field quantification and verification of all identified and/or assumed lead-based paint materials.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities; those suspect building materials will be considered lead-containing until a State Certified, Lead-based Paint Inspector/Assessor is retained to determine lead content of those materials.

Currently, the State of California, HUD, and the Environmental Protection Agency (EPA) define lead-based paint as paint or other surface coating with lead content equal to or greater than 1.0 milligram per square centimeter (mg/cm^2), 0.5% by weight or 5,000 parts per million lead on the surface area.

A. Currently, the State of California, the U.S Department of Housing and Urban Development (HUD), and the Environmental Protection Agency (EPA) define lead-based paint as paint or other surface coating with lead content equal to or greater than 1.0 milligram per square centimeter (mg/cm^2), 0.5% by weight and/or 5,000 parts per million lead on the surface area. However, The County of Los Angeles Department of Health Services (DHS) defines Lead-Based Paint as any paint or surface coating with concentrations of lead at or above 0.7 milligram per square centimeter (mg/cm^2). Based on the location of the subject property in Los Angeles County the "abatement level" (threshold) setting of 0.7 mg/cm^2 will be used for this project.

B. Lead abatement observation services shall be conducted by a third party consultant and shall be contracted directly by COMPTON COMMUNITY COLLEGE DISTRICT

1.2 REFERENCES

A. The references listed are made a part of this specification to the extent referenced.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z9.2	1979 Fundamentals Governing the Design and Operation of Local Exhaust Systems
ANSI Z88.2	1980 Respiratory Protection

HUD GUIDELINES Guidelines for the Evaluation and Control of Lead containing materials Hazards in Housing 1995

Title X (Residential Lead containing materials Hazard Reduction Act of 1992) of Housing and Community Development Act of 1992

CALIFORNIA CODE OF REGULATIONS (CCR)

8 CCR Section 1532.1 – Lead in Construction Standard

17 CCR	Division 1, Chapter 8 – Accreditation, Certification and Work Practices for Lead Based- Paint and Lead Hazards
22 CCR	California Code of Regulations – Hazardous Waste Requirements

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR 1910	General Industry Standards
29 CFR 1910.1025	Lead Standard for General Industry
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.1200	Hazard Communication
29 CFR 1910.245	Specifications for Accident Prevention (Sign and Tags)
29 CFR 1926	Construction Industry Standards
29 CFR 1926.55	Gases, Vapors, Fumes, Dusts, and Mists
29 CFR 1926.57	Ventilation
29 CFR 1926.62	Construction Industry Lead Standard
36 CFR 68	The Secretary of the Interior's Standards for the Treatment of Historic Properties. Washington, DC: US Department of the Interior, National Park Service, 1992.
40 CFR 260	Hazardous Waste Management Systems: General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Generators of Hazardous Waste
40 CFR 263	Transporters of Hazardous Waste
40 CFR 264	States and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status and Standards for States and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 172	Hazardous Materials Tables and Hazardous Materials Communications Regulations
40 CFR 178	Shipping Container Specification

UNDERWRITERS LABORATORIES INC. (UL)

UL 586	1990 High-Efficiency, Particulate, Air Filter Units

1.3 CODES AND REGULATIONS

A. In addition to the requirements of this specification, comply with the following:

1.4.1 Clean Air Act (CAA) 40 CFR 52.

1.4.2 South Coast Air Quality Management District’s (SCAQMD) Rule 1420.

1.5 GENERAL DESCRIPTION

The work includes the removal of lead hazards and coatings from surfaces scheduled to be impacted by the rehabilitation and demolition activities. Abate all lead containing materials hazards in accordance with these specifications and in accordance with all applicable regulations as noted herein. Additionally, the contractor will dispose of all debris.

1.6 QUALITY ASSURANCE

1.6.1 Medical Examinations

Before exposure to lead-contaminated dust, provide workers with a comprehensive medical examination as required by 8 CCR 1532.1, 29 CFR 1910.1025 and 29 CFR 1910.1200. The examination will not be required if adequate records show that employees have been examined as required by 8 CCR 1532.1, and 29 CFR 1910.1025 within the last year.

1.6.2 Medical Records

Maintain completed and accurate medical records of employees for a period of at least 40 years or for the duration of employment plus 20 years, whichever is longer.

1.6.3 Personnel Training

Train each employee performing paint removal and disposal in accordance with 17 CCR Div. 1 Chapter 8, 8 CCR 1532.1, and 29 CFR 1910.1025. Provide certificates for employee stating that the employee has received training.

1.6.4 Respiratory Protection Program

A. Furnish each employee required to wear a negative pressure respirator or other appropriate type with a respirator fit at the time of initial fitting and at least every 6 months thereafter as required by 8 CCR 1532.1 and 29 CFR 1910.1025.
B. Establish and implement a respiratory protection program as required by ANSI Z88.2, 29 CFR 1910.134, 29 CFR 1910.1025 and 29 CFR 1926.55.

1.6.5 Hazard Communication Program

Establish and implement a Hazard Communication Program as required by 29 CFR 1910.1200.

1.6.6 Hazardous Waste Management

The Hazard Waste Management plan shall comply with applicable requirements of federal, state, and local hazardous waste regulations and shall address:

A. Identification of hazardous wastes associated with the work.

B. Estimated quantities of wastes to be generated and disposed of.

C. Names and qualifications of the contractor transporting, storing, treating, and disposing of the waste. Include the facility location and a 24-hour point of contact with name, address and telephone number. Identify what EPA, state and local hazardous waste permits are required to authorize/permit the transport, storage treatment and/or disposal of the hazardous materials and provide proof that the Contractor has obtained the required permits. Include EPA identification number, with expiration date.

D. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.

E. Spill prevention, containment, and cleanup contingency measures to be implemented.

F. Work plan and schedule for waste containment, removal and disposal. Waste shall be cleaned up and containerized daily.

1.6.7 Ambient Air Monitoring

Periodic ambient air monitoring shall be conducted using air-sampling equipment set between and downwind of the work area.

1.7 SUBMITTALS

Submit all required documents for the identification and confirmation for training, lead-paint medical examinations and the respiratory protection program of workers for this contract per the requirements by COMPTON COMMUNITY COLLEGE DISTRICT.

Also, submit the following:

1.7.1 Manufacturer's Catalog Data

A. Vacuum Filters

B. Respirators

C. Instructions

1.7.2 Lead Containing Material Removal Plan

The Contractor must submit a detailed job-specific plan of the work procedures to be used in the removal of lead containing materials and lead hazards. The plan shall include a

sketch showing the location, size, and details of lead control areas, location and details of decontamination rooms, change rooms, shower facilities, and mechanical ventilation system. Include in the plan, eating, drinking, smoking and restroom procedures, interface of trades, sequencing of lead related work, collected wastewater and paint debris disposal plan, air sampling plan, respirators, protective equipment, and a detailed description of the method of containment of the operation to ensure that airborne lead concentrations of 30 micrograms per cubic meter of air are not exceeded outside of the lead control area.

A. Notification - Submit form 8551 to The California Department of Health Services with a copy to COMPTON COMMUNITY COLLEGE DISTRICT's Representative within 5 working days prior to the start of any lead removal work, as required by 17 CCR Div. 1 Chapter 8.

B. Notify COMPTON COMMUNITY COLLEGE DISTRICT in writing 10 calendar days prior to the start of any lead removal work.

1.8 EQUIPMENT

1.8.1 Respirators

Furnish appropriate respirators approved by NIOSH, for use in atmospheres containing lead dust. Respirators shall comply with the requirements of 8 CCR 1532.1 and 29 CFR 1910.1025.

1.8.2 Special Protective Clothing

Furnish personnel who will be exposed to lead-contaminated dust with appropriate disposable protective whole body clothing, head covering, gloves, and foot coverings. Furnish appropriate disposable plastic or rubber gloves to protect hands.

1.8.3 Rental Equipment Notification

If rental equipment is to be used during lead containing material handling and disposal, notify the rental agency in writing concerning the intended use of the equipment. Furnish a copy of the written notification to COMPTON COMMUNITY COLLEGE DISTRICT.

PART 2 PRODUCTS

2.1 LEAD CONTAINING MATERIAL REMOVAL PRODUCTS

Submit applicable Material Safety Data Sheets for lead removal products used in removal work. Use the least toxic product acceptable to COMPTON COMMUNITY COLLEGE DISTRICT. Conform to 29 CFR 1926.57 for ventilation.

2.2 ENCAPSULATING SEALER (WHERE APPLICABLE)

Shall be a penetrating or bridging type, pollution-free sealer. Shall be L-B-C Lead Encapsulant brand or equal. Product shall have the lowest shell thickness for wall restoration work. Submit applicable Material Safety Data Sheets for seal coating. Use the least toxic product acceptable to COMPTON COMMUNITY COLLEGE DISTRICT. Conform to 29 CFR 1926.57 for ventilation.

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 Lead Control Area Requirements

A. Establish a lead control area by completely enclosing the area or structure where lead-containing material removal operations will be performed.

B. Contain removal operations by the use of a negative pressure full containment system with at least one change room and with HEPA filtered exhaust.

C. Verify that personnel are not in building affected areas at the time of lead material removal.

3.1.2 Protection of Existing Work to Remain

Perform lead material removal work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition.

3.1.3 Boundary Requirements

Provide physical boundaries around the lead control area by demarcating the area designated in the Contractor's Lead Containing Material Removal Plan, providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 micrograms per cubic meter of air outside of the lead control area.

3.1.4 Heating, Ventilating and Air Conditioning (HVAC) Systems

Shut down, lock out, and isolate HVAC systems that supply, exhaust, or supply through the lead control area. Seal intake and exhaust vents in the lead control area with 6-mil plastic sheet and tape. Seal seams in HVAC components that pass through the lead control area.

3.1.5 Change Room and Shower Facilities

Provide clean change rooms and shower facilities within the physical boundary around the designated lead control area in accordance with requirements of 8 CCR 1532.1 and 29 CFR 1910.1025.

3.1.6 Mechanical Ventilation System

A. Use adequate ventilation to control personnel exposure to lead in accordance with 29 CFR 1926.57.

B. To the extent feasible, use fixed local exhaust ventilation connected to HEPA filters. Local exhaust ventilation systems shall be designed, constructed, installed, and maintained in accordance with ANSI Z9.2.

3.1.7 Personnel Protection

Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking is not permitted in the lead control area. No one will be permitted in the lead control area unless they have appropriate training and protective equipment.

3.1.8 Warning Signs

Provide warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 8 CCR 1532.1 and 29 CFR 1910.1025. Signs shall be in both English and Spanish. Signs shall be at least 20” x 14” with bold lettering not smaller than 2” in size. Signs shall read as follows:

WARNING
LEAD REMOVAL HAZARD
UNAUTHORIZED ENTRY PROHIBITED
NO SMOKING, EATING OR DRINKING ALLOWED IN THE WORK AREA

3.2 WORK PROCEDURES

Perform removal of lead containing material in accordance with approved lead-containing material removal plan. Use procedures and equipment required to limit occupational and environmental exposure to lead when lead containing materials are removed in accordance with 29 CFR 1910.1025, except as specified herein. Dispose of removed materials and associated waste in compliance with Environmental Protection Agency (EPA), federal, state, and local requirements.

3.2.1 Monitoring

Monitoring of airborne concentrations of lead shall be in accordance with 8 CCR 1532.1 and 29 CFR 1910.1025 and as specified herein. Air monitoring, testing, and reporting shall be performed by a California Department of Health Services certified project monitor.

A. The project monitor shall be on the job site to provide inspections of the lead containing materials removal work to ensure that the requirements of the Contract have been satisfied during the entire lead containing materials removal operation.

B. Collect air samples and submit results of air monitoring samples within 48 hours after the air samples are collected. Notify COMPTON COMMUNITY COLLEGE DISTRICT or COMPTON COMMUNITY COLLEGE DISTRICT's Representative immediately of exposure to lead at or in excess of the action level of 30 micrograms per cubic meter of air outside of the lead control area.

3.2.2 Monitoring During Lead Removal Work

Perform area monitoring during the lead containing material removal operation. Sufficient area monitoring shall be conducted at the physical boundary to ensure unprotected personnel are not exposed above 30 micrograms per cubic meter of air at all times. If the outside boundary lead levels are at or exceed 30 micrograms per cubic meter of air, work shall be stopped and the Project Monitor shall notify the contractor to immediately correct the condition(s) causing the increased levels and notify the School District immediately. The Project Monitor shall review the sampling data collected on that day to determine if condition(s) requires any further change in work methods. Removal work shall resume when approval is given by the Project Monitor. The Contractor shall control the lead level outside of the work boundary to less than 30 micrograms per cubic meter of air at all times. As a minimum, conduct area monitoring daily on each shift in which lead removal operations are performed in areas immediately adjacent to the lead control taken on the downwind side of the lead control area.

If adjacent areas are contaminated, clean, visually inspect and take wipe samples (if applicable) of the contaminated areas. The Project Monitor shall certify that the area has been cleaned of lead contamination.

3.2.3 Clearance Testing and Standards

At the completion of lead abatement, final cleaning and waste removal, the project monitor will collect the necessary clearance samples as required by the HUD Guidelines and/or 17 CCR Div. 1 Chapter 8.

3.3 LEAD PAINT CONTAINING MATERIAL REMOVAL

Lead removal shall be performed in accordance with the accepted Contractor's Lead Removal Plan as modified and approved by COMPTON COMMUNITY COLLEGE DISTRICT. The lead removal plan shall comply with all applicable regulations noted in this specification. The plan shall address the method and procedures for the removal and/or stabilization of lead paint containing materials.

3.3.1 Selection of Removal Process

Select paint removal processes to minimize contamination of work areas with lead-contaminated dust or other lead-contaminated debris/waste. The following paint removal is unacceptable:

A. Gas-fired open-flame burning.

B. Grinding or sanding.

C. Uncontained water blasting.

D. Open abrasive blasting.

3.3.2 Surface Preparation

Avoid flash rusting or other deterioration of the substrate. Provide surface preparations for painting in accordance with COMPTON COMMUNITY COLLEGE DISTRICT's requirements.

3.4 CLEANUP AND DISPOSAL

3.4.1 Cleanup

Maintain surfaces of the lead control area free of accumulations of debris and dust. Restrict the spread of dust and debris; keep waste from being distributed outside the work area. Do not dry sweep or use compressed air to clean up the area. At the end of each shift and when the paint removal operation has been completed, clean the area of visible lead paint contamination by vacuuming with a HEPA filtered vacuum cleaner.

3.4.2 Testing of Lead-Containing Paint Residue and Used Abrasive

A. Perform testing of lead-containing materials residue and used chemicals remover where indicated or when directed by COMPTON COMMUNITY COLLEGE DISTRICT, in accordance with 40 CFR 261 and TITLE 22 for hazardous waste.

3.4.3 Disposal

A third-party, independent consulting company (Bainbridge) will perform lead-waste characterization testing (TTLC/STLC) of abated lead-containing materials to determine Federal and State waste disposal requirements. Contingent upon waste characterization results; lead-containing waste disposal will be conducted as follows:

A. Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing, which may produce airborne concentrations of lead particles. Label the containers in accordance with 29 CFR 1910.1025. Dispose of lead-contaminated waste material at an EPA, CCR and California Administrative Code (CAC) TITLE 22 approved hazardous waste treatment, storage, or disposal facility.

B. Store waste materials in U.S. Department of Transportation (49 CFR 178) approved 55-gallon drums. Properly label each drum to identify the type of waste (49 CFR 172) and the date the drum was filled. COMPTON COMMUNITY COLLEGE DISTRICT or COMPTON COMMUNITY COLLEGE DISTRICT's Representative will assign an area for interim storage of waste-containing drums. Do not store hazardous waste drums in interim storage longer than 90 calendar days from the date affixed to each drum.

C. Handle, store, transport and dispose lead or lead-contaminated waste in accordance with 40 CFR 260 through 40 CFR 265. Comply with land disposal restriction and notification as required by 40 CFR 268.

3.4.4 Disposal Documentation

Submit written evidence that the hazardous waste treatment, storage, or disposal facility (TSD) is approved for lead disposal by the EPA and state or local regulatory agencies. Submit one copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262.

3.4.5 Payment for Hazardous Waste

Payment for disposal of hazardous waste will not be made until a signed copy of the manifest from the treatment or disposal facility certifying the amount of lead-containing materials delivered is returned and a copy is furnished to COMPTON COMMUNITY COLLEGE DISTRICT.

4.0 DEFINITIONS

A. Action Level for Airborne Lead Concentrations -- Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8-hour period. As used in this section, "30 micrograms per cubic meter of air" refers to the action level.

B. Area monitoring -- Sampling of lead concentrations within the lead control area and inside the physical boundaries of the work area.

C. Physical Boundary -- Area partitioned off around an enclosed lead control area to limit unauthorized entry of personnel.

D. Project Monitor -- As used in this section, refers to a California Department of Health Services certified project monitor employed by COMPTON COMMUNITY COLLEGE DISTRICT as a third party monitoring service personnel.

E. Change Rooms and Shower Facilities -- Rooms within the designated physical boundary around the lead control area equipped with separate storage facilities for clean protective work clothing and equipment and for street clothes which prevent cross-contamination.

F. Decontamination Room -- Room for removal of contaminated personal protective equipment and clothing.

G. Eight-Hour Time Weighted Average (TWA) -- Airborne concentration of lead averaged over an 8-hour workday to which an employee is exposed.

H. High Efficiency Particulate Air (HEPA) Filter Equipment -- HEPA filtered vacuuming equipment system capable of collecting and retaining lead-contaminated paint dust.

I. Lead -- Metallic lead, inorganic lead compounds. Excluded from this definition are other organic lead compounds.

J. Lead Control Area -- An enclosed area or structure with full containment to prevent the spread of lead dust, paint chips, or debris of lead containing pain removal operations. The lead control area is isolated by physical boundaries to prevent unauthorized entry of personnel.

K. Lead Permissible Exposure Limit (PEL) -- Fifty micrograms per cubic meter of air in an 8-hour time weighted average as determined by 8 CCR 1532.1 and 29 CFR 1910.1025.

L. Personal Monitoring -- Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with 8 CCR 1532.1 and 29 CFR 1910.1025. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulder, with a radius of 6 to 9 inches and the center at the nose or mouth of an employee.

M. Hazard Abatement: Long-term measures to remove the hazards of lead-based paint through selective paint stripping of deteriorated areas; or, in some cases, replacement of deteriorated features.

N. Hazard Control: Measures to reduce lead hazards to make housing safe for young children. Can be accomplished with interim (short-term) or hazard abatement (long-term) controls.

O. Owner: COMPTON COMMUNITY COLLEGE DISTRICT.

END OF SECTION

LEAD-BASED PAINT ABATEMENT PROJECT SPECIFICATIONS

For:

COMPTON COMMUNITY COLLEGE
MUSIC BUILDING – STORAGE ROOM
HVAC UPGRADE PROJECT
1111 EAST ARTESIA BOULEVARD
COMPTON, CALIFORNIA 90221

PRESENTED TO:

Compton Community College District
1111 East Artesia Boulevard
Compton, California 90221

PRESENTED BY:

BAINBRIDGE
Environmental Consultants

6226 Whittier Boulevard, Suite B
Los Angeles, California 90022
Phone: 213-921-4884
Fax: 714-247-0025

Bainbridge Project #: 18086517.10
August 28, 2018

SECTION 02-83-00 – LEAD ABATEMENT

PART 1 – GENERAL

The work required to be performed by the Contractor comprises the following:

Project Title: Music Building – Storage Room – HVAC Upgrade Project
Client: Compton Community College District
Location: 1111 East Artesia Boulevard, Compton, California 90221

1.1 WORK DESCRIPTION

The work included consists of furnishing labor, materials, permits, equipment, services, insurance including but not limited to the handling and transportation and disposal of lead-containing materials and waste resulting from the removal of lead-containing materials in various areas. This work shall be conducted by a licensed abatement contractor and certified personnel in accordance with all applicable Federal, State, and local regulations.

A. Materials and their quantities to be abated shall be verified by the General Contractor/Abatement Contractor prior to the abatement work. Abatement work shall be cross-referenced and shall be coordinated with Compton Community College District. Refer to Bainbridge's Limited Asbestos and Lead-Based Paint XRF Survey Report for Compton Community College District – Music Building – Storage Room – HVAC Upgrade Project dated August 28, 2018 for a full and complete description of the materials and locations surveyed. The lead-containing materials to be abated and their general location(s) and estimated quantities are as follows:

MUSIC BUILDING – Storage Room:
Lead-based Paint

XL No	Side	Building	Room	Source	Substrate	Color	Results mg/cm^2	Positive Negative	Approx. Quantity
4	B	Music	Storage	Door (Outside)	Metal	Gray	2.5	Positive	25 Sq. Ft.
5	B	Music	Storage	Door (Inside)	Metal	Gray	1.7	Positive	See No. 4
6	B	Music	Storage	Door Frame	Metal	Gray	3.0	Positive	See No. 4
13	B	Music	Storage	Door Frame	Metal	Gray	1.4	Positive	See No. 4

In the event that other materials are found to be similar or homogenous to the materials sampled, those similar or homogenous materials will be considered assumed lead-based paint containing materials. Approximate quantities are for general information only, not for bidding purpose. Prior to bid, the contractor is responsible for field quantification and verification of all identified and/or assumed lead-based paint materials.

In the event that other suspect building materials (not included in this survey report) are discovered and have the potential to be impacted or disturbed during construction, renovation and/or demolition activities; those suspect building materials will be considered lead-containing until a State Certified, Lead-based Paint Inspector/Assessor is retained to determine lead content of those materials.

Currently, the State of California, HUD, and the Environmental Protection Agency (EPA) define lead-based paint as paint or other surface coating with lead content equal to or greater than 1.0 milligram per square centimeter (mg/cm^2), 0.5% by weight or 5,000 parts per million lead on the surface area.

A. Currently, the State of California, the U.S Department of Housing and Urban Development (HUD), and the Environmental Protection Agency (EPA) define lead-based paint as paint or other surface coating with lead content equal to or greater than 1.0 milligram per square centimeter (mg/cm^2), 0.5% by weight and/or 5,000 parts per million lead on the surface area. However, The County of Los Angeles Department of Health Services (DHS) defines Lead-Based Paint as any paint or surface coating with concentrations of lead at or above 0.7 milligram per square centimeter (mg/cm^2). Based on the location of the subject property in Los Angeles County the “abatement level” (threshold) setting of 0.7 mg/cm^2 will be used for this project.

B. Lead abatement observation services shall be conducted by a third party consultant and shall be contracted directly by COMPTON COMMUNITY COLLEGE DISTRICT

1.2 REFERENCES

A. The references listed are made a part of this specification to the extent referenced.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z9.2	1979 Fundamentals Governing the Design and Operation of Local Exhaust Systems
ANSI Z88.2	1980 Respiratory Protection

HUD GUIDELINES Guidelines for the Evaluation and Control of Lead containing materials Hazards in Housing 1995

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29 CFR 1910.1025	Lead Standard for General Industry
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.1200	Hazard Communication
29 CFR 1910.245	Specifications for Accident Prevention (Sign and Tags)
29 CFR 1926	Construction Industry Standards
29 CFR 1926.55	Gases, Vapors, Fumes, Dusts, and Mists
29 CFR 1926.57	Ventilation
29 CFR 1926.62	Construction Industry Lead Standard
36 CFR 68	The Secretary of the Interior's Standards for the Treatment of Historic Properties. Washington, DC: US Department of the Interior, National Park Service, 1992.
40 CFR 260	Hazardous Waste Management Systems: General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Generators of Hazardous Waste
40 CFR 263	Transporters of Hazardous Waste
40 CFR 264	States and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status and Standards for States and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 172	Hazardous Materials Tables and Hazardous Materials Communications Regulations
40 CFR 178	Shipping Container Specification

UNDERWRITERS LABORATORIES INC. (UL)

UL 586	1990 High-Efficiency, Particulate, Air Filter Units

1.3 CODES AND REGULATIONS

A. In addition to the requirements of this specification, comply with the following:

1.4.1 Clean Air Act (CAA) 40 CFR 52.

1.4.2 South Coast Air Quality Management District’s (SCAQMD) Rule 1420.

1.5 GENERAL DESCRIPTION

The work includes the removal of lead hazards and coatings from surfaces scheduled to be impacted by the rehabilitation and demolition activities. Abate all lead containing materials hazards in accordance with these specifications and in accordance with all applicable regulations as noted herein. Additionally, the contractor will dispose of all debris.

1.6 QUALITY ASSURANCE

1.6.1 Medical Examinations

Before exposure to lead-contaminated dust, provide workers with a comprehensive medical examination as required by 8 CCR 1532.1, 29 CFR 1910.1025 and 29 CFR 1910.1200. The examination will not be required if adequate records show that employees have been examined as required by 8 CCR 1532.1, and 29 CFR 1910.1025 within the last year.

1.6.2 Medical Records

Maintain completed and accurate medical records of employees for a period of at least 40 years or for the duration of employment plus 20 years, whichever is longer.

1.6.3 Personnel Training

Train each employee performing paint removal and disposal in accordance with 17 CCR Div. 1 Chapter 8, 8 CCR 1532.1, and 29 CFR 1910.1025. Provide certificates for employee stating that the employee has received training.

1.6.4 Respiratory Protection Program

A. Furnish each employee required to wear a negative pressure respirator or other appropriate type with a respirator fit at the time of initial fitting and at least every 6 months thereafter as required by 8 CCR 1532.1 and 29 CFR 1910.1025.
B. Establish and implement a respiratory protection program as required by ANSI Z88.2, 29 CFR 1910.134, 29 CFR 1910.1025 and 29 CFR 1926.55.

1.6.5 Hazard Communication Program

Establish and implement a Hazard Communication Program as required by 29 CFR 1910.1200.

1.6.6 Hazardous Waste Management

The Hazard Waste Management plan shall comply with applicable requirements of federal, state, and local hazardous waste regulations and shall address:

A. Identification of hazardous wastes associated with the work.

B. Estimated quantities of wastes to be generated and disposed of.

C. Names and qualifications of the contractor transporting, storing, treating, and disposing of the waste. Include the facility location and a 24-hour point of contact with name, address and telephone number. Identify what EPA, state and local hazardous waste permits are required to authorize/permit the transport, storage treatment and/or disposal of the hazardous materials and provide proof that the Contractor has obtained the required permits. Include EPA identification number, with expiration date.

D. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.

E. Spill prevention, containment, and cleanup contingency measures to be implemented.

F. Work plan and schedule for waste containment, removal and disposal. Waste shall be cleaned up and containerized daily.

1.6.7 Ambient Air Monitoring

Periodic ambient air monitoring shall be conducted using air-sampling equipment set between and downwind of the work area.

1.7 SUBMITTALS

Submit all required documents for the identification and confirmation for training, lead-paint medical examinations and the respiratory protection program of workers for this contract per the requirements by COMPTON COMMUNITY COLLEGE DISTRICT.

Also, submit the following:

1.7.1 Manufacturer's Catalog Data

A. Vacuum Filters

B. Respirators

C. Instructions

1.7.2 Lead Containing Material Removal Plan

The Contractor must submit a detailed job-specific plan of the work procedures to be used in the removal of lead containing materials and lead hazards. The plan shall include a

sketch showing the location, size, and details of lead control areas, location and details of decontamination rooms, change rooms, shower facilities, and mechanical ventilation system. Include in the plan, eating, drinking, smoking and restroom procedures, interface of trades, sequencing of lead related work, collected wastewater and paint debris disposal plan, air sampling plan, respirators, protective equipment, and a detailed description of the method of containment of the operation to ensure that airborne lead concentrations of 30 micrograms per cubic meter of air are not exceeded outside of the lead control area.

A. Notification - Submit form 8551 to The California Department of Health Services with a copy to COMPTON COMMUNITY COLLEGE DISTRICT's Representative within 5 working days prior to the start of any lead removal work, as required by 17 CCR Div. 1 Chapter 8.

B. Notify COMPTON COMMUNITY COLLEGE DISTRICT in writing 10 calendar days prior to the start of any lead removal work.

1.8 EQUIPMENT

1.8.1 Respirators

Furnish appropriate respirators approved by NIOSH, for use in atmospheres containing lead dust. Respirators shall comply with the requirements of 8 CCR 1532.1 and 29 CFR 1910.1025.

1.8.2 Special Protective Clothing

Furnish personnel who will be exposed to lead-contaminated dust with appropriate disposable protective whole body clothing, head covering, gloves, and foot coverings. Furnish appropriate disposable plastic or rubber gloves to protect hands.

1.8.3 Rental Equipment Notification

If rental equipment is to be used during lead containing material handling and disposal, notify the rental agency in writing concerning the intended use of the equipment. Furnish a copy of the written notification to COMPTON COMMUNITY COLLEGE DISTRICT.

PART 2 PRODUCTS

2.1 LEAD CONTAINING MATERIAL REMOVAL PRODUCTS

Submit applicable Material Safety Data Sheets for lead removal products used in removal work. Use the least toxic product acceptable to COMPTON COMMUNITY COLLEGE DISTRICT. Conform to 29 CFR 1926.57 for ventilation.

2.2 ENCAPSULATING SEALER (WHERE APPLICABLE)

Shall be a penetrating or bridging type, pollution-free sealer. Shall be L-B-C Lead Encapsulant brand or equal. Product shall have the lowest shell thickness for wall restoration work. Submit applicable Material Safety Data Sheets for seal coating. Use the least toxic product acceptable to COMPTON COMMUNITY COLLEGE DISTRICT. Conform to 29 CFR 1926.57 for ventilation.

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 Lead Control Area Requirements

A. Establish a lead control area by completely enclosing the area or structure where lead-containing material removal operations will be performed.

B. Contain removal operations by the use of a negative pressure full containment system with at least one change room and with HEPA filtered exhaust.

C. Verify that personnel are not in building affected areas at the time of lead material removal.

3.1.2 Protection of Existing Work to Remain

Perform lead material removal work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition.

3.1.3 Boundary Requirements

Provide physical boundaries around the lead control area by demarcating the area designated in the Contractor's Lead Containing Material Removal Plan, providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 micrograms per cubic meter of air outside of the lead control area.

3.1.4 Heating, Ventilating and Air Conditioning (HVAC) Systems

Shut down, lock out, and isolate HVAC systems that supply, exhaust, or supply through the lead control area. Seal intake and exhaust vents in the lead control area with 6-mil plastic sheet and tape. Seal seams in HVAC components that pass through the lead control area.

3.1.5 Change Room and Shower Facilities

Provide clean change rooms and shower facilities within the physical boundary around the designated lead control area in accordance with requirements of 8 CCR 1532.1 and 29 CFR 1910.1025.

3.1.6 Mechanical Ventilation System

A. Use adequate ventilation to control personnel exposure to lead in accordance with 29 CFR 1926.57.

B. To the extent feasible, use fixed local exhaust ventilation connected to HEPA filters. Local exhaust ventilation systems shall be designed, constructed, installed, and maintained in accordance with ANSI Z9.2.

3.1.7 Personnel Protection

Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking is not permitted in the lead control area. No one will be permitted in the lead control area unless they have appropriate training and protective equipment.

3.1.8 Warning Signs

Provide warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 8 CCR 1532.1 and 29 CFR 1910.1025. Signs shall be in both English and Spanish. Signs shall be at least 20” x 14” with bold lettering not smaller than 2” in size. Signs shall read as follows:

WARNING
LEAD REMOVAL HAZARD
UNAUTHORIZED ENTRY PROHIBITED
NO SMOKING, EATING OR DRINKING ALLOWED IN THE WORK AREA

3.2 WORK PROCEDURES

Perform removal of lead containing material in accordance with approved lead-containing material removal plan. Use procedures and equipment required to limit occupational and environmental exposure to lead when lead containing materials are removed in accordance with 29 CFR 1910.1025, except as specified herein. Dispose of removed materials and associated waste in compliance with Environmental Protection Agency (EPA), federal, state, and local requirements.

3.2.1 Monitoring

Monitoring of airborne concentrations of lead shall be in accordance with 8 CCR 1532.1 and 29 CFR 1910.1025 and as specified herein. Air monitoring, testing, and reporting shall be performed by a California Department of Health Services certified project monitor.

A. The project monitor shall be on the job site to provide inspections of the lead containing materials removal work to ensure that the requirements of the Contract have been satisfied during the entire lead containing materials removal operation.

B. Collect air samples and submit results of air monitoring samples within 48 hours after the air samples are collected. Notify COMPTON COMMUNITY COLLEGE DISTRICT or COMPTON COMMUNITY COLLEGE DISTRICT's Representative immediately of exposure to lead at or in excess of the action level of 30 micrograms per cubic meter of air outside of the lead control area.

3.2.2 Monitoring During Lead Removal Work

Perform area monitoring during the lead containing material removal operation. Sufficient area monitoring shall be conducted at the physical boundary to ensure unprotected personnel are not exposed above 30 micrograms per cubic meter of air at all times. If the outside boundary lead levels are at or exceed 30 micrograms per cubic meter of air, work shall be stopped and the Project Monitor shall notify the contractor to immediately correct the condition(s) causing the increased levels and notify the School District immediately. The Project Monitor shall review the sampling data collected on that day to determine if condition(s) requires any further change in work methods. Removal work shall resume when approval is given by the Project Monitor. The Contractor shall control the lead level outside of the work boundary to less than 30 micrograms per cubic meter of air at all times. As a minimum, conduct area monitoring daily on each shift in which lead removal operations are performed in areas immediately adjacent to the lead control taken on the downwind side of the lead control area.

If adjacent areas are contaminated, clean, visually inspect and take wipe samples (if applicable) of the contaminated areas. The Project Monitor shall certify that the area has been cleaned of lead contamination.

3.2.3 Clearance Testing and Standards

At the completion of lead abatement, final cleaning and waste removal, the project monitor will collect the necessary clearance samples as required by the HUD Guidelines and/or 17 CCR Div. 1 Chapter 8.

3.3 LEAD PAINT CONTAINING MATERIAL REMOVAL

Lead removal shall be performed in accordance with the accepted Contractor's Lead Removal Plan as modified and approved by COMPTON COMMUNITY COLLEGE DISTRICT. The lead removal plan shall comply with all applicable regulations noted in this specification. The plan shall address the method and procedures for the removal and/or stabilization of lead paint containing materials.

3.3.1 Selection of Removal Process

Select paint removal processes to minimize contamination of work areas with lead-contaminated dust or other lead-contaminated debris/waste. The following paint removal is unacceptable:

A. Gas-fired open-flame burning.

B. Grinding or sanding.

C. Uncontained water blasting.

D. Open abrasive blasting.

3.3.2 Surface Preparation

Avoid flash rusting or other deterioration of the substrate. Provide surface preparations for painting in accordance with COMPTON COMMUNITY COLLEGE DISTRICT's requirements.

3.4 CLEANUP AND DISPOSAL

3.4.1 Cleanup

Maintain surfaces of the lead control area free of accumulations of debris and dust. Restrict the spread of dust and debris; keep waste from being distributed outside the work area. Do not dry sweep or use compressed air to clean up the area. At the end of each shift and when the paint removal operation has been completed, clean the area of visible lead paint contamination by vacuuming with a HEPA filtered vacuum cleaner.

3.4.2 Testing of Lead-Containing Paint Residue and Used Abrasive

A. Perform testing of lead-containing materials residue and used chemicals remover where indicated or when directed by COMPTON COMMUNITY COLLEGE DISTRICT, in accordance with 40 CFR 261 and TITLE 22 for hazardous waste.

3.4.3 Disposal

A third-party, independent consulting company (Bainbridge) will perform lead-waste characterization testing (TTLC/STLC) of abated lead-containing materials to determine Federal and State waste disposal requirements. Contingent upon waste characterization results; lead-containing waste disposal will be conducted as follows:

A. Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing, which may produce airborne concentrations of lead particles. Label the containers in accordance with 29 CFR 1910.1025. Dispose of lead-contaminated waste material at an EPA, CCR and California Administrative Code (CAC) TITLE 22 approved hazardous waste treatment, storage, or disposal facility.

B. Store waste materials in U.S. Department of Transportation (49 CFR 178) approved 55-gallon drums. Properly label each drum to identify the type of waste (49 CFR 172) and the date the drum was filled. COMPTON COMMUNITY COLLEGE DISTRICT or COMPTON COMMUNITY COLLEGE DISTRICT's Representative will assign an area for interim storage of waste-containing drums. Do not store hazardous waste drums in interim storage longer than 90 calendar days from the date affixed to each drum.

C. Handle, store, transport and dispose lead or lead-contaminated waste in accordance with 40 CFR 260 through 40 CFR 265. Comply with land disposal restriction and notification as required by 40 CFR 268.

3.4.4 Disposal Documentation

Submit written evidence that the hazardous waste treatment, storage, or disposal facility (TSD) is approved for lead disposal by the EPA and state or local regulatory agencies. Submit one copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262.

3.4.5 Payment for Hazardous Waste

Payment for disposal of hazardous waste will not be made until a signed copy of the manifest from the treatment or disposal facility certifying the amount of lead-containing materials delivered is returned and a copy is furnished to COMPTON COMMUNITY COLLEGE DISTRICT.

4.0 DEFINITIONS

A. Action Level for Airborne Lead Concentrations -- Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8-hour period. As used in this section, "30 micrograms per cubic meter of air" refers to the action level.

B. Area monitoring -- Sampling of lead concentrations within the lead control area and inside the physical boundaries of the work area.

C. Physical Boundary -- Area partitioned off around an enclosed lead control area to limit unauthorized entry of personnel.

D. Project Monitor -- As used in this section, refers to a California Department of Health Services certified project monitor employed by COMPTON COMMUNITY COLLEGE DISTRICT as a third party monitoring service personnel.

E. Change Rooms and Shower Facilities -- Rooms within the designated physical boundary around the lead control area equipped with separate storage facilities for clean protective work clothing and equipment and for street clothes which prevent cross-contamination.

F. Decontamination Room -- Room for removal of contaminated personal protective equipment and clothing.

G. Eight-Hour Time Weighted Average (TWA) -- Airborne concentration of lead averaged over an 8-hour workday to which an employee is exposed.

H. High Efficiency Particulate Air (HEPA) Filter Equipment -- HEPA filtered vacuuming equipment system capable of collecting and retaining lead-contaminated paint dust.

I. Lead -- Metallic lead, inorganic lead compounds. Excluded from this definition are other organic lead compounds.

J. Lead Control Area -- An enclosed area or structure with full containment to prevent the spread of lead dust, paint chips, or debris of lead containing pain removal operations. The lead control area is isolated by physical boundaries to prevent unauthorized entry of personnel.

K. Lead Permissible Exposure Limit (PEL) -- Fifty micrograms per cubic meter of air in an 8-hour time weighted average as determined by 8 CCR 1532.1 and 29 CFR 1910.1025.

L. Personal Monitoring -- Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with 8 CCR 1532.1 and 29 CFR 1910.1025. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulder, with a radius of 6 to 9 inches and the center at the nose or mouth of an employee.

M. Hazard Abatement: Long-term measures to remove the hazards of lead-based paint through selective paint stripping of deteriorated areas; or, in some cases, replacement of deteriorated features.

N. Hazard Control: Measures to reduce lead hazards to make housing safe for young children. Can be accomplished with interim (short-term) or hazard abatement (long-term) controls.

O. Owner: COMPTON COMMUNITY COLLEGE DISTRICT.

END OF SECTION

PACKAGED HEAT PUMP UNIT SCHEDULE (ROOF TOP) - CAFETERIA BUILDING

SYMBOL	MANUFACTURER & MODEL	LOCATION	AREA SERVED	NOMINAL TONAGE	CFM	EXT. S.P.	SUPPLY FAN BHP	OSA CFM	COOLING			HEATING		ELECTRICAL							WEIGHT			NOTES	ANCHORAGE DETAIL
									TOTAL (mbh)	SENSIBLE (mbh)	SEER	CAPCITY (mbh)	HSPF	V	PH	HZ	MCA	MOCP	FLA	LRA	UNIT	CURB	TOTAL		
HP-K1	TRANE 4WCC3048A3000B (NEW)	ROOF BUILDING	KITCHEN	4	1,600	0.8	0.93	250	46.0	44.5	13.0	43.5	7.70	208	1	60	28	40	19.1	116	450	110	560	1, 2, 3, 4, 5, 6, 7	2 S-3 / 3 S-3
HP-K2	TRANE 4WCC3048A3000B (NEW)	ROOF BUILDING	KITCHEN	4	1,600	0.8	0.93	250	46.0	44.5	13.0	43.5	7.70	208	1	60	28	40	19.1	116	450	110	560	1, 2, 3, 4, 5, 6, 7	2 S-3 / 3 S-3
HP-K3	TRANE 4WCC3048A3000B (NEW)	ROOF BUILDING	KITCHEN	4	1,600	0.8	0.93	250	46.0	44.5	13.0	43.5	7.70	208	1	60	28	40	19.1	116	450	110	560	1, 2, 3, 4, 5, 6, 7	2 S-3 / 3 S-3

1

NOTES:

1. VERTICAL DISCHARGE ROOFTOP HEAT PUMP WITH OUTSIDE AIR AND BAROMETRIC RELIEF HOOD , TIME GUARD II CONTROL CIRCUIT, LOW AMBIENT KIT AND AND CRANKCASE HEATER
2. PROVIDE WITH R410A REFRIGERANT.
3. PROVIDE GLASS FIBER DISPOSABLE MEDIA IN METAL FRAMES, SIZED PER MANUFACTURER WITH MINIMUM ARRESTANCE ACCORDING TO ASHRAE 52.1, AND A MINIMUM EFFICIENCY REPORTING VALUE (MERV) ACCORDING TO ASHRAE 52.2
4. PROVIDE FIELD INSTALLED DISCONNECT SWITCH. SEE ELECTRICAL DRAWINGS.
5. PROVIDE FAN STATUS AND PRESSURE DIFFERENTIAL SENSOR FILTER STATUS.
6. AREAS WITH UNIT SUPPLYING MORE THAN 2,000 CFM SHALL BE EQUIPPED WITH TOTAL COVERAGE DETECTION SYSTEM, ABLE TO SHUT DOWN UNIT(S) WITHIN COVERAGE AREA AND SEND SIGNAL TO BUILDING FIRE ALARM PANEL PER 2016 CMC, SECTION 608. SEE FIRE ALARM DRAWINGS FOR COMPLETE WIRING AND UNIT SHUT DOWN SEQUENCE.
7. PROVIDED WITH REFRIGERATION SERVICE PORTS, FITTED WITH LOCKING TYPE TAMPER RESISTANT CAP OR SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS IN ACCORDANCE WITH 2016 CMC, SECTION 1105.11

AIR DISTRIBUTION DEVICE SCHEDULE

SYMBOL	MFR & MODEL	NECK SIZE	CFM RANGE	NECK VELOCITY	MAX N.C.	S.P. DROP	TYPE	DAMPER	REMARKS
SA-1	KRUEGER 5180	8"x8"	0-170	400	30	0.03	CURVED BLADE, ADJUSTABLE MULTI-DEFLECTIONAL ALUMINUM DIFFUSER	OBD	FRAME 22 FOR GYPBOARD CEILING.
		10"x10"	171-270						
		12"x12"	271-400						
		14"x14"	401-550						
		16"x16"	551-700						
		18"x18"	701-1000						
RA-1	KRUEGER EGC10	8"x8"	0-170	400	30	0.04	1"x1"x1" GRID ALUMINUM CUBE CORE	OBD	FRAME 22 FOR GYPBOARD CEILING.
		10"x10"	171-270						
		12"x12"	271-400						
		14"x14"	401-550						
		16"x16"	551-700						
		18"x18"	701-1000						
		20"x20"	1001-1250						
		22"x22"	1251-1500						

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REGISTERED PROFESSIONAL ENGINEER — SCOTT BETANCOURT — S.E. 4296 — STRUCTURAL — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — PHILIP J. PAIS — No. M36549 Exp. 9/30/19 — MECHANICAL — STATE OF CALIFORNIA

HVAC ADDITIONS TO CAFETERIA BLDG.

COMPTON COMMUNITY COLLEGE DISTRICT
COMPTON COLLEGE
1111 E. ARTESIA BLVD.
COMPTON, CA. 90221

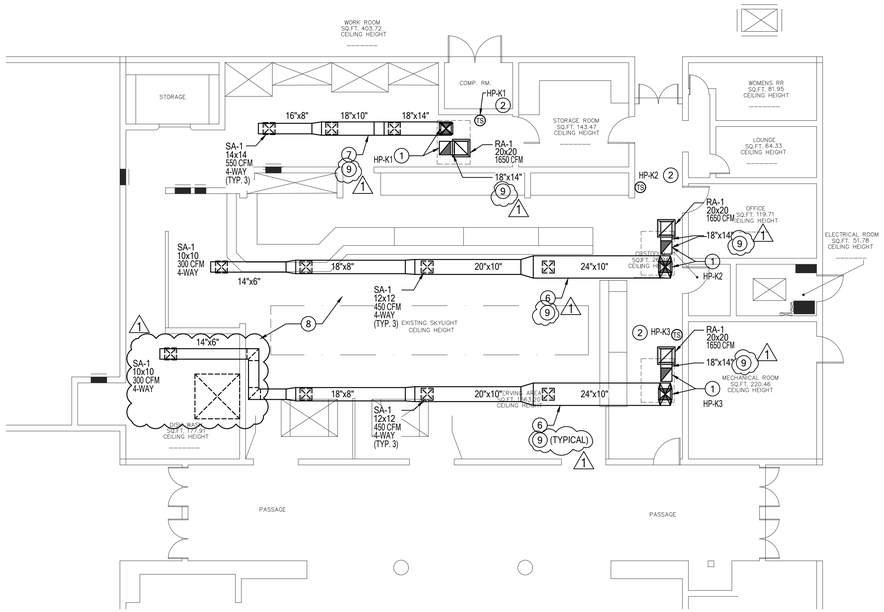
NO	DATE	BY	DESCRIPTION
1	11/14/2019	IZ	ADDENDUM 1

REVISIONS

DRAWN: IZ	CHECKED: IP
DATE: 8/31/2018	SCALE: AS NOTED
PROJECT NUMBER: 17-302	

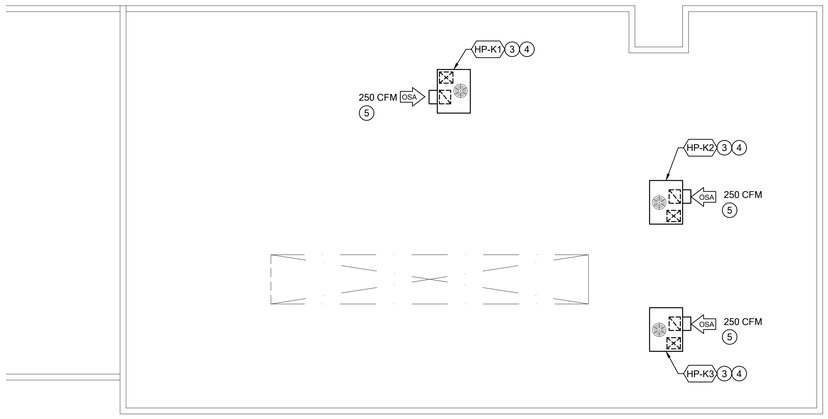
MECHANICAL SCHEDULES

DRAWING NUMBER : M0.2



1 Mechanical Floor Plan

SCALE: 1/8" = 1'-0"



2 Mechanical Roof Plan

SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. FRESH AIR INTAKES SHALL BE 10'-0" MIN. AWAY FROM ALL EXHAUST OUTLETS, PLUMBING VENTS, AND FLUES.
2. CONTRACTOR SHALL COORDINATE EXACT EQUIPMENT, DUCTWORK AND PIPING SIZES AND LOCATIONS WITH OTHER TRADES PRIOR TO INSTALLATION.
3. MAINTAIN MANUFACTURER MIN. CLEARANCES ON ALL ROOF-TOP MECHANICAL EQUIPMENT.
4. THE MINIMUM VENTILATION RATES IN BREATHING ZONES SHALL BE IN CONFORMANCE WITH CALIFORNIA MECHANICAL CODE TABLE 4-1 AND/OR CALIFORNIA ENERGY CODE TABLE 121-A.
5. DUCT SIZES SHOWN ON PLAN ARE INSIDE DIMENSIONS.
6. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS WITHIN 30 DAYS OF AWARD OF CONTRACT. IF SHOP DRAWINGS ARE NOT PROVIDED TO THE ENGINEER FOR APPROVAL, AND ANY CONFLICTS OCCUR BETWEEN TRADES, DURING CONSTRUCTION, & ETC. THEN, THE CONTRACTOR SHALL BE RESPONSIBLE AND BEAR ALL COST INCURRED FOR ANY REVISIONS, AT NO ADDITIONAL COST TO THE CLIENT. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY PRIOR TO FABRICATION AND INSTALLATION OF ANY CONFLICTS BETWEEN TRADES, DURING CONSTRUCTION, & ETC.

PLAN KEY NOTES:

1. FULL SIZE SUPPLY AND RETURN AIR DUCT UP THRU ROOF, TRANSITION TO 16"X16" DUCT IN VERTICAL DROP WITH ELL AND TURNING VANES AND TRANSITION HORIZONTALLY AS INDICATED WITH1" ACOUSTICAL LINING. NO PLENUM TAPS.
2. PROVIDE PROGRAMMABLE THERMOSTATS IN OFFICE WITH LOCKING COVERS, MOUNT AT +48" A.F.F..
3. INSTALL LEVEL NEW EQUIPMENT WITH NEW ROOF CURBS. CONTRACTOR TO VERIFY IN FIELD EXACT LOCATION AND COORDINATE WITH ALL EXISTING MECHANICAL, PLUMBING AND ELECTRICAL ROOF EQUIPMENT AND COMPONENTS.
4. CONTRACTOR TO RELOCATE ALL EXISTING MECHANICAL, PLUMBING AND ELECTRICAL SYSTEM COMPONENTS THAT ARE IN CONFLICT WITH NEW ROOFTOP UNIT AND ALL RELATED SYSTEMS.
5. FRESH AIR INTAKES SHALL BE 10'-0" MIN. AWAY FROM ALL EXHAUST OUTLETS, PLUMBING VENTS, AND FLUES.
6. INSTALL DUCTWORK AND AIR OUTLET DEVICE AS HIGH AS POSSIBLE, BELOW EXISTING CEILING. PAINT EXPOSED DUCT WORK AND ACCESSORIES TO MATCH CEILING PAINT COLOR.
7. INSTALL DUCTWORK ABOVE EXISTING CEILING. REMOVE AND REPLACE CEILING TO MATCH EXISTING AS REQUIRED.
8. ALL NON-FUNCTIONAL EXISTING CEILING GRILLES/ DIFFUSERS SHALL BE REMOVED, CAP DUCTWORK AND REPLACE AND REPAIR CEILING TO MATCH EXISTING.
9. PROVIDE DUCT SUPPORT PER DETAIL 3/M2.1 AT MAXIMUM 10 FEET SPACING. EXACT LOCATION SHALL BE COORDINATED WITH ALL EXISTING CEILING ELEMENTS. REPAIR EXISTING CEILING AT ALL DUCT SUPPORT PENETRATIONS TO MATCH ADJACENT EXISTING CEILING.

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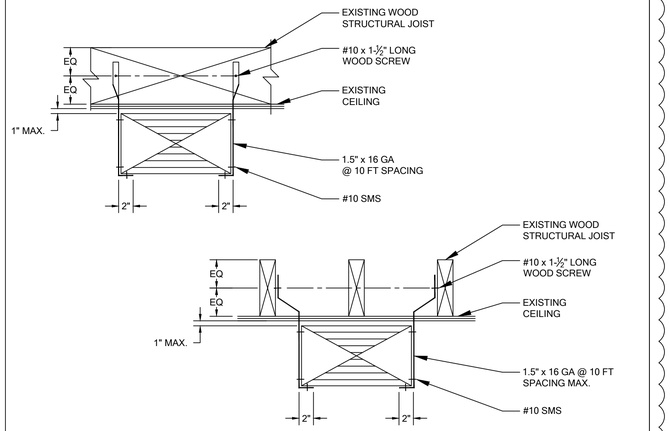
NO	DATE	BY	DESCRIPTION
1	11/14/2019	IZ	ADDENDUM 1

REVISIONS

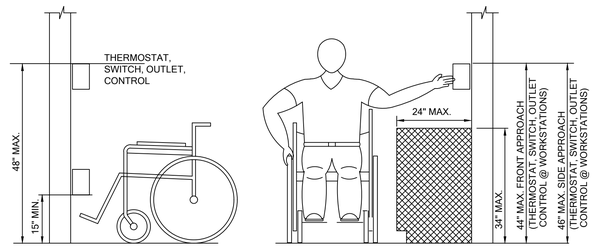
DRAWN: IZ	CHECKED: IP
DATE: 8/31/2018	SCALE: AS NOTED
PROJECT NUMBER: 17-302	

MECHANICAL PLANS

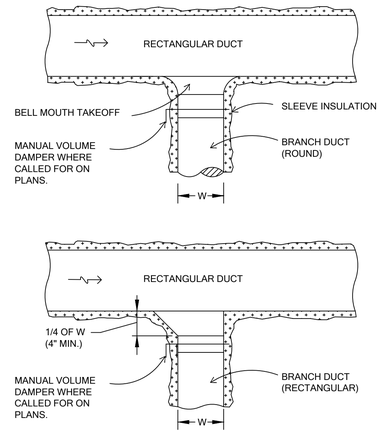
DRAWING NUMBER : M1.1



1 DUCT SUPPORT DETAIL — SCALE NONE



3 CONTROL DEVICE MOUNTING DETAIL — SCALE NONE



BRANCH TAKEOFF (REC) — SCALE NONE — 2

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REGISTERED PROFESSIONAL ENGINEER — SCOTT BETANCOURT — S.E. 4296 — STRUCTURAL — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — PHILIP E. PAIS — No. M36549 Exp. 9/30/19 — MECHANICAL — STATE OF CALIFORNIA

HVAC ADDITIONS TO CAFETERIA BLDG.
COMPTON COMMUNITY COLLEGE DISTRICT
COMPTON COLLEGE
1111 E. ARTESIA BLVD.
COMPTON, CA. 90221

NO	DATE	BY	DESCRIPTION
1	11/14/2019	IZ	ADDENDUM 1

REVISIONS

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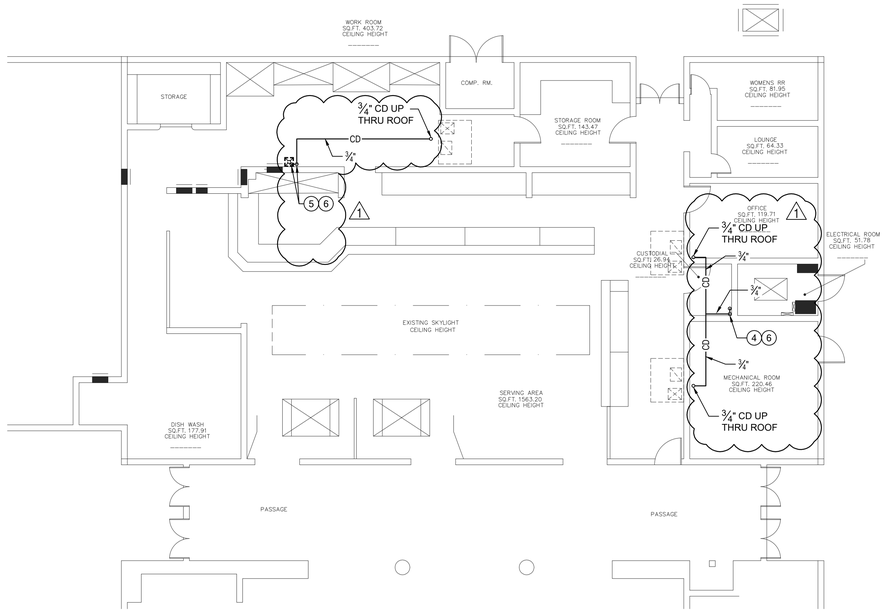
DATE: 8/31/2018 — SCALE: AS NOTED
PROJECT NUMBER: 17-302

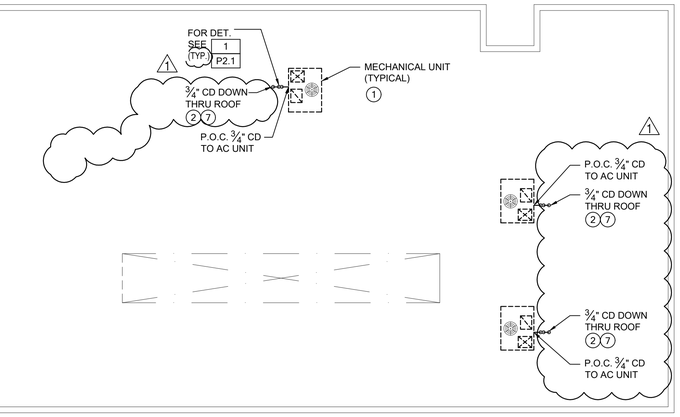
MECHANICAL DETAILS

DRAWING NUMBER : M2.1



1 Plumbing Floor Plan

SCALE: 1/8" = 1'-0"



2 Plumbing Roof Plan

SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. BEFORE COMMENCEMENT OF WORK, THE PLUMBING CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING BY PHYSICAL EXCAVATION, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND POINTS OF CONNECTION PRIOR TO BIDDING THE PROJECT.
3. WHERE PLANS INDICATE NEW FIXTURES OR EQUIPMENT CONNECTING TO EXISTING SERVICES, THE PLUMBING CONTRACTOR SHALL MODIFY AND/OR EXTEND EXISTING PIPING OR ROUGH-INS AS REQUIRED TO ACCOMMODATE THE NEW FIXTURE.
4. ALL SLEEVES THRU MASONRY WALLS AND FOOTINGS SHALL BE MINIMUM TWO PIPES SIZES LARGER THAN THE PIPE GOING THRU IT, PROVIDE ALL SLEEVES.
5. ALL CONDENSATE DRAIN PIPING ABOVE CEILING SHALL SLOPE AT 1% UNLESS OTHERWISE NOTED.

KEY PLAN NOTES:

1. NEW ROOF-TOP MECHANICAL UNIT. REFER TO MECHANICAL DRAWINGS FOR LOCATION.
2. CONDENSATE DRAIN PIPING DOWN THRU ROOF. FLASH AND COUNTERFLASH ROOF PENETRATION WATER PROOF.
3. ~~PIPE ON ROOF. EXACT LOCATION MUST BE VERIFIED AND DETERMINED IN FIELD AND COORDINATED WITH EXISTING ROOF COMPONENTS. PROVIDE ROOF PIPE SUPPORT TO PROVIDE A CONTINUOUS, UNIFORM PIPE SLOPE OF MIN 1%.~~ 1
4. ¾" CONDENSATE DRAIN PIPING UP AND DOWN SECURED AT WALL. TERMINATE DAYLIGHT WITH TURNDOWN ELBOW AT MOP SINK WITH 2" AIR GAP.
5. ¾" CONDENSATE DRAIN PIPING UP AND DOWN SECURED AT WALL. TERMINATE DAYLIGHT WITH TURNDOWN ELBOW AT FLOOR SINK WITH 2" AIR GAP.
6. EXACT LOCATION MUST BE VERIFIED AND DETERMINED IN FIELD AND COORDINATED WITH EXISTING FLOOR/SERVICE SINK AND EXISTING WALL INSTALLED EQUIPMENT.
7. 1 LOCATE CONDENSATE PIPE ROOF PENETRATION AS CLOSE AS POSSIBLE TO NEW MECHANICAL UNIT. EXACT LOCATION MUST BE VERIFIED AND DETERMINED IN FIELD AND COORDINATED WITH EXISTING ROOF COMPONENTS. PROVIDE ROOF PIPE SUPPORT AS REQUIRED.

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PLUMBING PLANS

DRAWING NUMBER : P1.1

PACKAGED HEAT PUMP UNIT SCHEDULE (WALL INSTALLED) - MUSIC BUILDING

SYMBOL	MANUFACTURER & MODEL	LOCATION	AREA SERVED	NOMINAL TONAGE	CFM	EXT. S.P.	SUPPLY FAN HP	OSA CFM	COOLING			HEATING		ELECTRICAL							WEIGHT			NOTES	ANCHORAGE DETAIL
									TOTAL (mbh)	SENSIBLE (mbh)	IEER	CAPCITY (mbh)	COP	V	PH	HZ	MCA	MOCP	FLA	LRA	UNIT	CURB	TOTAL		
HP-Y1	BARD W48HA-A	WALL BUILDING "Y"	CLASSROOM Y-	4.0	1,600	0.3	1/2	470	43.9	34.5	10.0	42.5	3.17	208	1	60	35	50	22.3	117	551	-	551	1,2, 3, 4, 5, 6, 7, 8, 9	8 S-4
HP-Y2	BARD W48HA-A	WALL BUILDING "Y"	CLASSROOM Y-	4.0	1,600	0.3	1/2	470	43.9	34.5	10.0	42.5	3.17	208	1	60	35	50	22.3	117	551	-	551	1,2, 3, 4, 5, 6, 7, 8, 9	8 S-4
HP-Y3	BARD W48HA-A	WALL BUILDING "Y"	CLASSROOM Y-	4.0	1,600	0.3	1/2	470	43.9	34.5	10.0	42.5	3.17	208	1	60	35	50	22.3	117	551	-	551	1,2, 3, 4, 5, 6, 7, 8, 9	8 S-4

NOTES:

1. HORIZONTAL DISCHARGE, WALL MOUNTED HEAT PUMP WITH OUTSIDE AIR AND BAROMETRIC RELIEF HOOD , TIME GUARD II CONTROL CIRCUIT, LOW AMBIENT KIT AND AND CRANKCASE HEATER
2. PROVIDE WITH R410A REFRIGERANT.
3. PROVIDE GLASS FIBER DISPOSABLE MEDIA IN METAL FRAMES, SIZED PER MANUFACTURER WITH MINIMUM ARRESTANCE ACCORDING TO ASHRAE 52.1, AND A MINIMUM EFFICIENCY REPORTING VALUE (MERV) ACCORDING TO ASHRAE 52.2
4. PROVIDE FIELD INSTALLED DISCONNECT SWITCH. SEE ELECTRICAL DRAWINGS.
5. PROVIDE FAN STATUS AND PRESSURE DIFFERENTIAL SENSOR FILTER STATUS.
6. AREAS WITH UNIT SUPPLYING MORE THAN 2,000 CFM SHALL BE EQUIPPED WITH TOTAL COVERAGE DETECTION SYSTEM, ABLE TO SHUT DOWN UNIT(S) WITHIN COVERAGE AREA AND SEND SIGNAL TO BUILDING FIRE ALARM PANEL PER 2016 CMC, SECTION 608. SEE FIRE ALARM DRAWINGS FOR COMPLETE WIRING AND UNIT SHUT DOWN SEQUENCE.
7. PROVIDED WITH REFRIGERATION SERVICE PORTS, FITTED WITH LOCKING TYPE TAMPER RESISTANT CAP OR SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS IN ACCORDANCE WITH 2016 CMC, SECTION 1105.11.
8. PROVIDE AUTOMATED LOGIC CONTROLLER. COORDINATE WITH CONTROLS CONTRACTOR.
9. WALL MOUNT HEAT PUMP WITH OUTSIDE AIR AND BAROMETRIC RELIEF HOOD , LOW AMBIENT KIT AND AND CRANKCASE HEATER.

INDOOR FAN COIL UNIT SCHEDULE - MUSIC BUILDING

SYMBOL	SERVICE	MANUFACTURER	MODEL	CFM	EXT. S.P."	MOTOR HP	ELECTRICAL					OSA CFM	FILTERS	WGT. LBS.	REMARKS	ANCHORAGE DETAIL
							VOLT	PH.	HZ	MCA	MOCP					
FAU-4	SEE PLAN	CARRIER	FV4C	1600	0.8	3/4	208/ 230	1	60	8.5	15	350	FILTER BANK, MERV 8	207	INTERLOCK WITH CU-4, PROVIDE AUXILIARY CONDENSATE OVERFLOW SAFETY SWITCH 'LITLE GIANT" MODEL ACS-5 WITH AUDIBLE ALARM FOR CONDENSATE DRAIN LINE.	3 M2.1
FAU-5	SEE PLAN	CARRIER	FV4C	1600	1.0	3/4	208/ 230	1	60	8.5	15	200	FILTER BANK, MERV 8	207	INTERLOCK WITH CU-5, PROVIDE AUXILIARY CONDENSATE OVERFLOW SAFETY SWITCH 'LITLE GIANT" MODEL ACS-5 WITH AUDIBLE ALARM FOR CONDENSATE DRAIN LINE.	3 M2.1
FAU-6	SEE PLAN	CARRIER	40RUQ	4000	1.2	3.7	208/ 230	3	60	14	20	600	FILTER BANK, MERV 8	427	INTERLOCK WITH CU-6, PROVIDE AUXILIARY CONDENSATE OVERFLOW SAFETY SWITCH 'LITLE GIANT" MODEL ACS-5 WITH AUDIBLE ALARM FOR CONDENSATE DRAIN LINE.	3 M2.1

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OUTDOOR HEAT PUMP UNIT SCHEDULE - MUSIC BUILDING

SYMBOL	SERVICE	MANUFACTURER	MODEL	COOLING		HEATING			ELECTRICAL			COMP. RLA	COMP. LRA	COND. FAN FLA	MCA	MOCP	WGT. LBS.	REMARKS	ANCHORAGE DETAIL
				TOTAL	SEER/EER	INPUT	OUTPUT	EFF.	V	P	HZ								
CU-4	SEE PLAN	CARRIER	25HHA448	45.34 MBTUH	15.0 / 12.0	-	47.05 MBTUH	3.96 COP	208/ 230	3	60	21.8	117.0	1.45	28.8	50	276	INTERLOCK WITH FAU-4, PROVIDE WITH 6" CONCRETE EQUIPMENT PAD AND MOUNTING BRACKETS. REFRIGERANT PIPES SHALL BE SIZED AND INSTALLED PER MANUFACTURER'S RECOMMENDATION BASED ON TOTAL LENGTH BETWEEN INDOOR AND OUTDOOR UNIT.	2 S-3, 5 S-3
CU-5	SEE PLAN	CARRIER	25HHA448	45.34 MBTUH	15.0 / 12.0	-	47.05 MBTUH	3.96 COP	208/ 230	3	60	21.8	117.0	1.45	28.8	50	276	INTERLOCK WITH FAU-5, PROVIDE WITH 6" CONCRETE EQUIPMENT PAD AND MOUNTING BRACKETS. REFRIGERANT PIPES SHALL BE SIZED AND INSTALLED PER MANUFACTURER'S RECOMMENDATION BASED ON TOTAL LENGTH BETWEEN INDOOR AND OUTDOOR UNIT.	2 S-3, 5 S-3
CU-6	SEE PLAN	CARRIER	38AUQ012	119.00 MBTUH	13.8 / 11.0	-	104.48 MBTUH	3.3 COP	208/ 230	3	60	15.9	110	-	39	50	575	INTERLOCK WITH FAU-6, PROVIDE WITH 6" CONCRETE EQUIPMENT PAD AND MOUNTING BRACKETS. REFRIGERANT PIPES SHALL BE SIZED AND INSTALLED PER MANUFACTURER'S RECOMMENDATION BASED ON TOTAL LENGTH BETWEEN INDOOR AND OUTDOOR UNIT.	2 S-3, 5 S-3

NOTES:

1. HEAT PUMP SPLIT SYSTEM WITH R410A REFRIGERANT.
2. PROVIDE WITH FACTORY INSTALLED FILTER DRIER, HIGH-LOW PRESSURE SWITCH, TIME GUARD, CRANCKCASE HEATER, SOLENOID VALVE, SIGHT GLASS, EXPANSION VALE AND EQUALIZER LINE.
3. PROVIDE GLASS FIBER DISPOSABLE MEDIA IN METAL FRAMES, SIZED PER MANUFACTURER WITH MINIMUM ARRESTANCE ACCORDING TO ASHRAE 52.1, AND A MINIMUM EFFICIENCY REPORTING VALUE (MERV) ACCORDING TO ASHRAE 52.2
4. FILTER KIT CONVERSION.
5. PROVIDE FIELD INSTALLED DISCONNECT SWITCH. SEE ELECTRICAL DRAWINGS.
6. UNITS SHALL BE EQUIPPED WITH TOTAL COVERAGE SMOKE DETECTION SYSTEM, ABLE TO SHUT DOWN UNIT(S) WITHIN COVERAGE AREA AND SEND SIGNAL TO BUILDING FIRE ALARM PANEL PER 2016 CMC, SECTION 608. SEE FIRE ALARM DRAWINGS FOR COMPLETE WIRING AND UNIT SHUT DOWN SEQUENCE.
7. HORIZONTAL SUCTION LINES TO BE PITCHED TOWARD COMPRESSOR MINIMUM 1/2" FOR EACH 10 FEET. PROVIDE 1" FOAM INSULATION TO ALL SUCTION PIPES ARE REQUIRED. PROVIDE LONG TURN ELLS ON ALL REFRIGERANT PIPING TURNS. PROVIDE SIGHT GLASS AT CONDENSING UNIT AND PRESSURE TAPS AT FAN COIL UNIT. FOR EXACT INSTALLATION SEE MANUFACTURER'S RECOMMENDED PIPING DETAIL.
7. PROVIDED WITH REFRIGERATION SERVICE PORTS, FITTED WITH LOCKING TYPE TAMPER RESISTANT CAP OR SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS IN ACCORDANCE WITH 2016 CMC, SECTION 1105.11.

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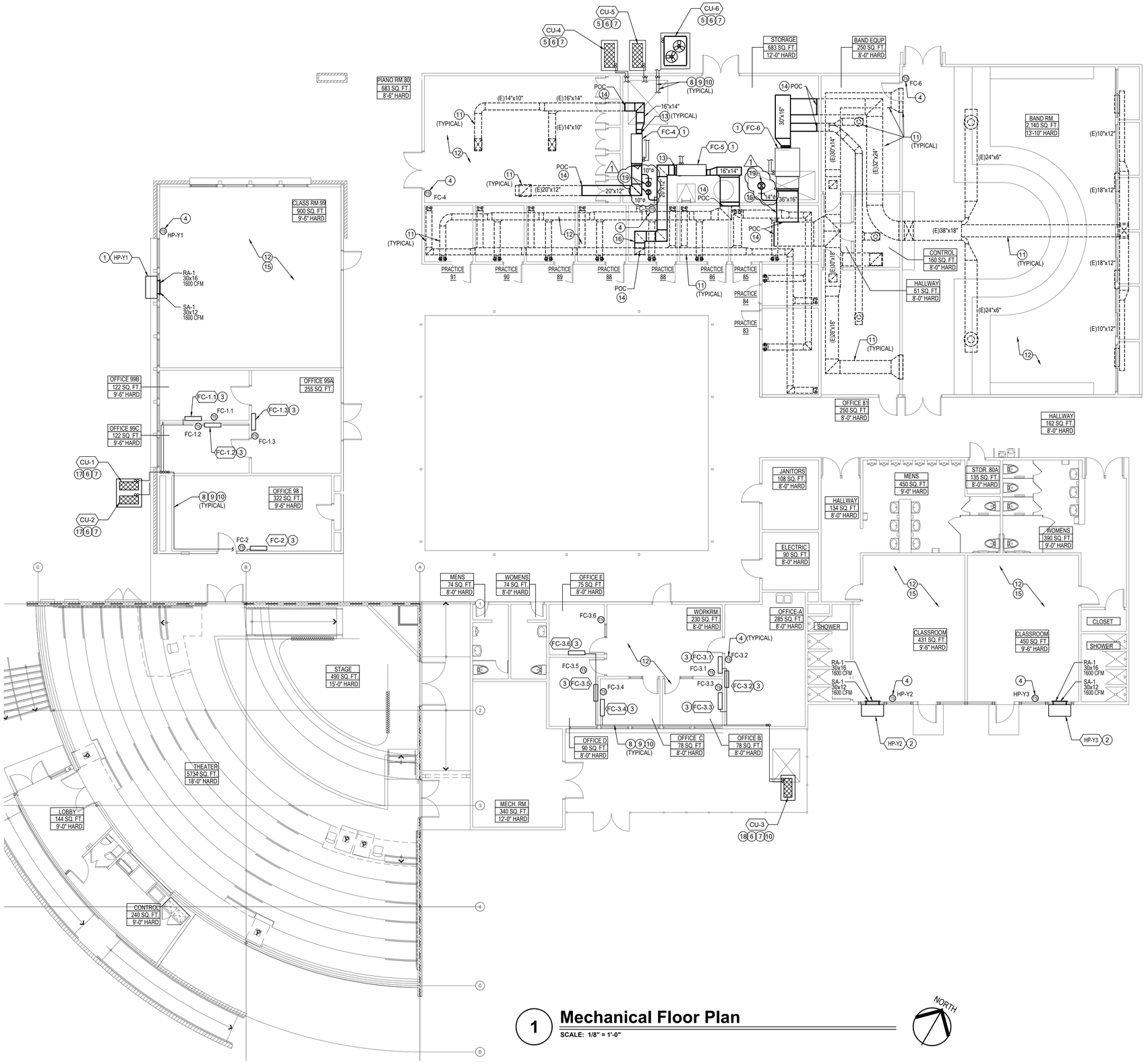
MECHANICAL SCHEDULES

DRAWING NUMBER : M0.2



1 Mechanical Floor Plan

SCALE: 1/8" = 1'-0"

NORTH

1.

PLAN NOTES:

2. FRESH AIR INTAKES SHALL BE 10'-0" MIN. AWAY FROM ALL EXHAUST OUTLETS, PLUMBING VENTS, AND FLUES.
3. CONTRACTOR SHALL COORDINATE EXACT EQUIPMENT, DUCTWORK AND PIPING SIZES AND LOCATIONS WITH OTHER TRADES PRIOR TO INSTALLATION.

   MAINTAIN MANUFACTURER MIN. CLEARANCES ON ALL ROOF-TOP MECHANICAL EQUIPMENT.
4. THE MINIMUM VENTILATION RATES IN BREATHING ZONES SHALL BE IN CONFORMANCE WITH CALIFORNIA MECHANICAL CODE TABLE 4-1 AND/OR CALIFORNIA ENERGY CODE TABLE 121-A.
5. DUCT SIZES SHOWN ON PLAN ARE INSIDE DIMENSIONS.
6. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS WITHIN 30 DAYS OF AWARD OF CONTRACT. IF SHOP DRAWINGS ARE NOT PROVIDED TO THE ENGINEER FOR APPROVAL, AND ANY CONFLICTS OCCUR BETWEEN TRADES, DURING CONSTRUCTION, & ETC. THEN, THE CONTRACTOR SHALL BE RESPONSIBLE AND BEAR ALL COST INCURRED FOR ANY REVISIONS, AT NO ADDITIONAL COST TO THE CLIENT. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY PRIOR TO FABRICATION AND INSTALLATION OF ANY CONFLICTS BETWEEN TRADES, DURING CONSTRUCTION, & ETC.

PLAN KEY NOTES:

1. HORIZONTAL INDOOR FAN COIL UNIT, SUSPENDED FROM STRUCTURE ABOVE. REFER TO DETAIL 3/M2.1 AND STRUCTURAL DRAWINGS. CONTRACTOR TO VERIFY EXISTING FIELD CONDITION TO PROVIDE ALL REQUIRED CLEARANCES PRIOR TO INSTALLATION.
2. VERTICAL WALL MOUNTED HEAT PUMP, REFER TO STRUCTURAL DRAWINGS FOR INSTALLATION DETAIL. CONTRACTOR TO VERIFY EXISTING FIELD CONDITION TO PROVIDE ALL REQUIRED CLEARANCES PRIOR TO INSTALLATION.
3. WALL MOUNTED FAN COIL. CONTRACTOR TO VERIFY EXISTING FIELD CONDITION TO PROVIDE ALL REQUIRED CLEARANCES PRIOR TO INSTALLATION.
4. INSTALL NEW ROOM TEMPERATURE SENSOR PER DETAIL 1/M2.1. CONTRACTOR TO VERIFY EXISTING FIELD CONDITION TO PROVIDE ALL REQUIRED CLEARANCES PRIOR TO BID.
5. 4" HIGH & 12" BELOW GRADE CONCRETE PAD FOR OUTDOOR CONDENSER UNIT PER DETAIL 2/S-3.
6. PROVIDE LOCKING CAPS ON ACCESSIBLE A/C/ REFRIGERATION PORTS PER CMC 1106.3.1.
7. PROVIDE WORKING CLEARANCE AT A/C/ DISCONNECT: 30" CLEAR SPACE IN FRONT.
8. PROVIDE REFRIGERANT PIPING FROM OUTDOOR A/C UNIT TO INDOOR FAN COIL. REFRIGERATION PIPING LINES SHALL BE INSULATED AND SIZED BY A/C UNIT MANUFACTURER, BASED UPON DETERMINATION OF ACTUAL DEVELOPED LENGTH BETWEEN OUTDOOR AND INDOOR UNITS.
9. REFRIGERANT PIPING FROM OUTDOOR A/C UNIT TO INDOOR FAN COIL SHALL BE INSTALLED AS HIGH AS POSSIBLE AND SECURED AT WALL. PROVIDE COVER FOR ALL EXPOSED PIPING AND PAINT TO MATCH WALL.
10. EXACT PIPING LOCATION SHALL BE VERIFIED IN FIELD AND SHALL BE COORDINATED WITH ALL EXISTING ROOM EQUIPMENT AND FIXTURES PRIOR TO INSTALLATION.
11. EXISTING SUPPLY AND RETURN AIR DUCTWORK AND AIR OUTLET DEVICES SHALL BE COMPLETELY CLEANED.
12. EXISTING HVAC ROOM CONTROL TO BE REMOVED. CONTRACTOR TO REPAIR WALL TO MATCH EXISTING ADJACENT SURFACE.
13. PROVIDE FLEX CONNECTION.
14. EXACT POINT OF CONNECTION AND EXISTING DUCT SIZE SHALL BE VERIFIED IN FIELD AND SHALL BE COORDINATED WITH ALL EXISTING ROOM EQUIPMENT AND FIXTURES PRIOR TO INSTALLATION.
15. ALL NON-FUNCTIONAL EXISTING CEILING GRILLES/ DIFFUSERS SHALL BE REMOVED, CAP DUCTWORK AND REPLACE AND REPAIR CEILING TO MATCH EXISTING.
16. INSTALL DUCTWORK ABOVE EXISTING CEILING. REMOVE AND REPLACE CEILING TO MATCH EXISTING AS REQUIRED.
17. 4" HIGH & 12" BELOW GRADE CONCRETE PAD FOR OUTDOOR CONDENSER UNIT PER DETAIL 3/S-3.
18. 5" HIGH CONCRETE PAD FOR OUTDOOR CONDENSER UNIT PER DETAILS 1/S-3 AND 4/S-3.
19. OUTSIDE AIR DUCT UP THRU ROOF TO DUCT ROOF CAP. FLASH AND COUNTERFLASH ROOF PENETRATION WEATHERPROOF.

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MECHANICAL PLANS

DRAWING NUMBER : M1.1