DOCUMENT 00 9113

ADDENDA

SPECIFICATION NO. 26-11762-C

CITY OF BERKELEY

1947 CENTER ST. WINDOW REPLACEMENT PROJECT

1947 CENTER STREET

[DOCUMENT TO BE COMPLETED AS ADDENDA DURING BID PERIOD]

The following Addenda were issued, modifying the Project Manual:

Addendum No. 1, issued on **May 4, 2026**
Addendum No. 2, issued on **May 15, 2026**
Addendum No. 3, issued on **May 26, 2026**

(Addenda have been incorporated into the conformed Project Manual.)

END OF DOCUMENT

ADDENDUM NO. 3

MAY 26, 2026

The bid documents for Specification No. 26-11762-C for the 1947 Center St. Window Replacement Project are amended as follows:

1-1. COVER

BID OPENING DATE: Thursday, June 11, 2026

1-2. DOCUMENT 00 0110 TABLE OF CONTENTS – APPENDICES

G. CITY OF BERKELEY COMMUNITY WORKFORCE AGREEMENT

1-3. DOCUMENT 00 1113 ARTICLE 1 – INVITATION TO BID

Notice Inviting Bids: City of Berkeley ("City") will receive sealed Bids at City of Berkeley, Purchasing Manager's Office, located at the Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704, Telephone (510) 981-7320, until **2:00 pm, Thursday, June 11, 2026** for the following public work:

1-4. BIDDERS AND CONTRACTOR CHECKLIST

Items Required at Bid Opening: **2:00 PM, Thursday, June 11, 2026**, at City of Berkeley, Purchasing Manager's Office, Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704

QUESTIONS AWORKND RESPONSES:

2-1. Q: Can you let us know if Bid Alternates A1 through A5 will be awarded with the original contract, or if the City plans to add them later as Change Orders? If they may come in later, how long after NTP can we hold our alternate pricing firm? This makes a real difference on our end since re-mobilizing scaffolding and cranes, locking in material pricing, and adjusting bonds all get more expensive the further out we go.

A: If budget is available, scope would be incorporated onto the original contract.

2-2. Q: Can you confirm how many windows are on each 5th Floor elevation (South, East, West, and North), along with the types and sizes, so we can line them up with Bid Alternates A1 through A4? Also, are any window types only found on one elevation? If so, those would need their own fabrication run. This helps us price each alternate on its own and plan material lead times and mobilization correctly. (Reference: Drawings A301–A304, A402, A502, Bid Alternates A1–A4).

A: 46 total, 33 type A to be replaced with AA, 11 type D to be replaced with DD, 1 type E to be replaced with EE, and 1 F to be replaced with FF

South: 17 total, 17 type A to be replaced with AA
East: 7 total, 5 type D to be replaced with DD, 1 E to be replaced with EE, 1 F to be replaced with FF
West: 6 total, 6 type D to be replaced with DD
North: 16 total, 16 type A to be replaced with AA

See Sheet A402 for sizes of each window type.

Fabrication run is at the contractor and manufacturer's discretion on how to provide the best value.

2-3. Q: Addendum No. 2 puts the 5th Floor drinking fountain replacement under Base Bid Item 3, along with the fountains on the Basement, 1st, 2nd, 4th, and 6th Floors. Can you confirm the 5th Floor fountain stays in the Base Bid even if Alternate A5 (5th Floor restrooms) isn't picked up? And if A5 isn't exercised, how would you like us to coordinate access to the 5th Floor for the fountain work, since the floor is occupied? (Reference: Section 01 1100 Bid Item 3 and Addendum No. 2, Item 1-2, Bid Alternate A5)

A: Correct, 5th floor drinking fountain will remain as base bid items under item 3. If 5th floor restroom scope (item A5) doesn’t get approved, the contractor will work with the City’s project manager to coordinate access. It will be an occupied floor.

2-4. Q: Addendum No. 2 confirms the 6th Floor is vacant and that we'll get access to designated areas on the 5th Floor "as needed." For any of the alternates we end up doing on the 5th Floor, can you clarify a few things? First, will the whole floor be cleared while we're working, or just the area we're actively in? Second, will any of the work need to happen after hours, on weekends, or at night? And finally, who handles moving staff and disconnecting/reconnecting IT - us or the City? Each of these has a real impact on how we price and schedule the 5th Floor scope.

A: For pricing purposes, assume that most single elevations on the 5th floor can be made available one at a time during regular working hours. If the work is approved, assume any required moving scope will be performed by others.

2-5. Q: Can you walk us through who's pulling and paying for which permits — the City or the Contractor? Specifically: the Building Permit, encroachment and sidewalk closure permits, No-Parking permits, PG&E coordination fees for the gas shutdown tied to the seismic valve work (Addendum No. 2, Item 1-1), and any crane or Traffic Control Plan (TCP) permits. Also, if the existing Conditional Approval (Appendix C) wasn't included in the bid package, could you send a copy our way?

A: The City will be responsible for paying for the building, electrical, plumbing, or mechanical permits. However, there are forms that the City will need the contractors assistance on filling out. Like the Electrical & Plumbing permit forms. Additionally, contractor will need to fill out the Waste Management Plan & provide Green Halo and Permit Declarations, included in the attachments. All encroachment, sidewalk, No-Parking, Crane Traffic Control Plan Permits & coordination with PG&E will be the responsibility of the contractor. Permit Conditional approval is included, refer to “Permit Application Approved”, also attached to this addendum for reference.

2-6. Q: Please confirm if the 5th-floor scope should be priced as a separate Bid Alternate on Document 00 4113. If yes, does this alternate encompass the restroom plumbing (P2.05), signage rebuilds (A405), and all window replacements/concrete repairs for that floor? A clear base/alternate split is required.

A: Most of the 5th-floor scope identified as Bid Alternate work is included under Bid Alternate Items A1, A2, A3, A4, and A5 (see Specification Section 00 4113-2). The only exception is the 5th-floor drinking fountain, which is included under Base Bid Item 3.

Sheets P2.05 and A405 encompass the 5th-floor restroom scope associated with Bid Alternate Item A5, with the exception of Drinking Fountain Detail 3, which remains part of the base bid.

2-7. Q: Please provide the executed CWA document or Master Labor Agreement reference, the specific applicable trade Locals, and any specific Skilled & Trained Workforce apprenticeship percentage targets.

A: Refer to “City of Berkeley Community Work Force Agreement”, see attachment.

2-8. **Q: Please clarify:**
- Is perimeter sealant replacement required for Type B windows ('to remain')?

A: No

- Which floor(s) do Type B and Type C windows occur on?

A: Window Type B occurs on floor 1 & Window Type C occurs at basement.

- Confirm if Type F windows are repair-in-place per Sheet A302 (East Elevation) or full aluminum replacement (Type FF) per Sheet A402.

A: Replace per sheet A402. Note quantity is only 2 windows. We will revise Sheet A302 and A402 to clarify.

2-9. **Q: Since repairs depend on a post-bid hammer sounding survey, please provide baseline quantities or unit-price allowances for Details 1, 2, 4, 5, and 6 to ensure level bidding. How will the City adjudicate change orders if actual quantities exceed the bid basis?**

A:
1/A505: 10 square feet

2/A505: 12 square feet

4/A505: 1 square foot

5/A505: 410 square feet

6/A505: 410 lineal feet

Contractor's hammer survey results to be documented with excess quantities to be approved for repair after confirmation by City/Architect.

2-10. Q: For the seismic gas valve installation, please clarify the allowable shutdown window (off-hours/weekends), maximum outage duration for the occupied building, and whether the City or Contractor is responsible for PG&E coordination and permit fees.

A: Shutdown window will need to be coordinated with City PM. Shutdown should be done off-hours. The building is occupied during the week from 7 am to 6 pm. The contractor is responsible for PG&E coordination and permit fees.

2-11. Q: Please confirm the final approved window model/specification (drawings reference Graham SR4700). Also, please clarify if we may propose "or equal" manufacturers, or if the requirement is restricted to "Graham ONLY." Additionally, confirm if a formal Landmarks Preservation Commission (LPC) mock-up review is required prior to production.

A: Graham SR4700 was approved by LPC. Design team does not know of an equal. If one is available, it can be evaluated for aesthetic and performance equivalence. Mock-up will be reviewed by City (department of public works) and Architect.

2-12. Q: Please clarify the delivery location and disposition path (turn over to Owner vs. contractor disposal) for: drinking fountains, 36" and 42" grab bars, window blind, and demolished steel windows.

A: Salvage drinking fountains and deliver to nearby facility located at 2134 Martin Luther King Jr Way, Berkeley, CA 94703. Blinds to remain and re-installed. Demolished steel windows to be disposed of in accordance with applicable regulations for hazardous waste (lead).

2-13. Q: Please clarify the following operational and security constraints:
- Noise/Dust: Are there specific tool/compressor restrictions due to adjacent occupied offices? What isolation methods are required for the 3rd floor Permit Service Center?

A: No tool/compressor restriction. Please reference section 01 5700 temp controls for more details.

- Phasing: Will 5th and 6th floor work be concurrent or phased? Is demobilization required between floors? Confirm 5th-floor staff relocation will be complete before work starts.

A: 5th floor will need to be phased. 6th floor can be concurrent or phased. Demobilization will not be required between floors if 5th floor scope is approved. 5th floor staff will be relocated as needed.

- Logistics & Security: Where are the designated curb staging zones? Will field personnel require City badges, background checks, or daily sign-in/out protocols?

A: The staging area shall be determined by the contractor. Badges and background checks will not be required; however, the contractor shall maintain daily sign-in sheets for all personnel on site. Security will be notified of construction activities, but contractors will not be required to sign in with security. Access cards will be provided to the contractor.

2-14. Q: Please confirm utility availability (power/Wi-Fi), restroom access, and any duration or relocation constraints once 6th-floor window work begins.

A: City has public Wi-Fi available. Contractor to have own Porta-potty in staging area.

2-15. Q: Lead has been confirmed in exterior paint and putty. Please provide the full lead-based paint and ACM inspection reports referenced on Sheet G000 for our abatement subcontractor's review.

A: See report form Acumen titled “Asbestos and Lead Survey Report” in the appendix.

2-16. Q: Since parge repairs are field-discovered during window removal, please confirm if estimators should assume a baseline quantity/percentage per window for the repair and elastomeric coating, or if this scope is entirely variable.

A: Actual quantities will be variable, and price of contract will be adjusted based on approved unit counts. See response to question 2-9 for baseline quantities to ensure level bids for concrete and parge coat repairs. Assume new elastomeric coating at 100% of exposed rough openings. Note that unit cost for 2/A505 (corner spalls) should include additional elastomeric coating outside the rough opening to cover these repairs.

2-17. Q: Please provide the estimated construction start and substantial completion dates.

A: Estimated construction start can be as soon as December 2026, but date may vary. Substantial completion is 140 days after commencement.

2-18. Q: Where to access the plans and project documents?

A: https://berkeleyca.gov/doing-business/working-city/bid-proposal-opportunities/1947-center-st-window-replacement-project

CITY OF BERKELEY

DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECTS

PROJECT MANUAL

1947 Center St. Window Replacement Project

SPECIFICATION NO. 26-11762-C

April, 2026

ADVERTISEMENT DATE: April 27, 2026

PRE-BID CONFERENCE: May 6, 2026

BID OPENING DATE: Thursday, June 11, 2026

1947 CENTER STREET, 4th Floor, BERKELEY, CALIFORNIA 94704 (510) 981-6400

Division Section Title

GENERAL REQUIREMENTS

01 1100	Summary of the Work
01 2000	Measurement and Payment
01 2600	Modification Procedures
01 3119	Project Meetings
01 3230	Progress Schedules and Submittals
01 3300	Submittals
01 4100	Regulatory Requirements
01 4200	References and Definitions
01 4500	Testing and Inspection
01 5200	Temporary Facilities
01 5526	Traffic Control
01 5700	Temporary Controls
01 7329	Cut-Patch
01 7413	Project Cleaning
01 7419	Construction Waste Management
01 7700	Contract Closeout
01 7800	Closeout Submittals

TECHNICAL SPECIFICATIONS

01 73 29	Cutting and Patching
02 41 13	Selective Demolition
07 21 00	Thermal Insulation
07 92 00	Joint Sealant
08 31 00	Access Doors and Panels
08 51 13	Aluminum Windows
08 83 00	Mirrors
09 21 16	Gypsum Board Assemblies
09 30 00	Tiling
09 90 00	Painting and Coating
09 96 53	Interior and Exterior Paint
10 14 00	Signage
10 21 13	Toilet Compartments
10 28 00	Commercial Toilet Accessories

APPENDICES

A. BIDDER AND CONTRACTOR CHECKLIST
B. ASBESTOS AND LEAD SURVEY REPORT BY ACUMEN INDUSTRIAL HYGIENE, APRIL 2025
C. PERMIT – CONDITIONAL APPROVAL
D. PERMIT DECLARATIONS FORM
E. PLIMBING FEE SCHEDULE
F. CONSTRUCTION WASTE MANGEMENT FORM (GREEN HALO)
G. CITY OF BERKELEY COMMUNITY WORKFORCE AGREEMENT

END OF DOCUMENT

DOCUMENT 00 1113

NOTICE INVITING BIDS

ARTICLE 1 - INVITATION TO BID

1.01 Notice Inviting Bids: City of Berkeley ("City") will receive sealed Bids at City of Berkeley, Purchasing Manager's Office, located at the Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704, Telephone (510) 981-7320, until **2:00 PM, Thursday, June 11, 2026** for the following public work:

SPECIFICATION NO. 26-11762-C
CITY OF BERKELEY
1947 Center St. Window Replacement Project
1947 Center Street

1.02 Project Description: Work includes the abatement and removal of steel windows, installation of new windows, repairs to concrete rough openings, and associated accessibility upgrades, including ancillary work in accordance with the terms and conditions of the Contract Documents. Work shall be completed within **154** Calendar Days from the date when Contract Time commences to run.

1.03 Procurement of Bidding Documents:
Bidding Documents contain the full description of the Work. Bidders may obtain Bidding Documents by April 20, 2026 from City of Berkeley's Public Works website under Current Construction Project Bid Opportunities:

https://berkeleyca.gov/doing-business/working-city/bid-proposal-opportunities

For information pertaining to the Bidding Documents, please contact the Project Manager, Uriel Gonzalez, 1947 Center Street, 5th Floor, Berkeley, CA 94704, by Email at UGonzalez@berkeleyca.gov or by Telephone at (510) 981-6627 or by FAX **(510) 981-6390**.

1.04 Planholders List:

Bidders are responsible for notifying Uriel Gonzalez, via email at UGonzalez@berkeleyca.gov to be included on the Planholders List. Please include the following in the email subject header: "Planholders list for Specification No. 26-11762-C for 1947 Center St. Window Replacement Project". In the body of the email, please state the Name of the Company Representative, Company Name, Address, Telephone Number, Fax Number, and Email Address.

1.05 Instructions: Bidders shall refer to Document 00 2113 (Instructions to Bidders) for required documents and items to be submitted in a sealed envelope for deposit into the Bid Box, located at **City of Berkeley, Purchasing Manager's Office, Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704, Telephone (510) 981-7320** no later than the time and date set forth in Paragraph 1.01 above.

1.06 Non-Mandatory Pre-Bid Site Visit: City **WILL** conduct a **Non-Mandatory** Pre-Bid Conference and Site Visit at 1947 Center Street**.** The location of work is open to the public during normal business or daylight hours. It is recommended that potential bidders visit the site independently to review site conditions prior to bid. City will conduct a Pre-Bid Conference and Site Visit at 1947 Center Street, at 11:00 AM Wednesday, May 6, 2026

1.07 Bid Preparation Cost: Bidders are solely responsible for the cost of preparing their Bids.

1.08 Reservation of Rights: City specifically reserves the right, in its sole discretion, to reject any or

BIDDERS AND CONTRACTORS CHECKLIST

Items Required at Bid Opening: **2:00 PM, Thursday, June 11, 2026,** at City of Berkeley, Purchasing Manager's Office, Martin Luther King Jr. Civic Center, 2180 Milvia Street, Third Floor, Berkeley, CA 94704

Envelope A

- ☐ Bid Form (Document 00 4113)
- ☐ Bond Accompanying Bid (Document 00 4313)
- ☐ Bidder Registration and Experiencing Form (Document 00 4314)
- ☐ Subcontractor List (Document 00 4330)
- ☐ Non-Collusion Affidavit (Document 00 4519)
- ☐ Bidder Certification (Document 00 4546)
- ☐ Envelope B
- ☐ Statement of Qualifications for Construction Work (Document 00 4513)

Items Required after Notice of Intent to Award for Construction (Document 00 5100):

- ☐ Agreement (Document 00 5200)
- ☐ Construction Performance Bond (Document 00 6113.13)
- ☐ Construction Labor and Material Payment Bond (Document 00 6113.16)
- ☐ OPTIONAL - Escrow Agreement for Security Deposit in Lieu of Retention (Document 00 6290)
- ☐ Insurance Certificates with Endorsements (Document 00 7316)
- ☐ City of Contracting Policies (Document 00 6580)
  - ☐ Memorandum of Understanding
  - ☐ Workforce Composition Form (to be completed by Contractor and any Subcontractors who will do work valued at $3,000 or more)
  - ☐ Agreement for Change in Subcontractors (List all Subcontractors, Contractor to sign and date)
  - ☐ Nuclear Free Zone Disclosure Statement
  - ☐ Oppressive States Compliance Statement
  - ☐ Hardwood Disclosure Form
  - ☐ First Source Construction Agreement (for projects between $100,000 and $500,000)
  - ☐ Community Workforce Agreement, Agreement to be Bound (for projects over $500,000; to be completed by Contractor and any Subcontractors who will do work valued at $3,000 or more)
  - ☐ Certificate of Compliance with Equal Benefits Ordinance
  - ☐ Taxpayer Identification Report
  - ☐ Right to Audit Form
  - ☐ Sanctuary City Compliance Certificate
- ☐ Contractor's License
- ☐ City of Berkeley Business License
- ☐ Vendor Application Form (if not current City vendor)
- ☐ IRS Form I-9 (if not current City vendor)

Items Required During Construction:

- ☐ Progress Schedules and Submittals (Document 01 3230)
- ☐ Monthly Progress Payment Applications (Document 01 2000)
  - ☐ Weekly Certified Payroll Statements for period of Progress Payment Application
  - ☐ First Source Agreement OR Community Workforce Agreement Monthly Reports

Items Required Upon Completion of Project for Final Payment:

- ☐ Agreement and Release of Any and All Claims (Document 00 6530)
- ☐ Guaranty (Document 00 6536)
- ☐ Warranties (Document 01 7700)
- ☐ Closeout Submittals (Document 01 7800)

Permit Application Approved

Permit Service Center
Building & Safety Division
Planning and Development Department

Application #: B2025-04586 February 27, 2026

Project Address: 1947 Center St

Dear Project Applicant,

The City of Berkeley has completed review of the construction documents submitted under the building permit application number specified above. This permit is approved with conditions, and will be issued upon payment of outstanding fees, and completion of conditions of approval documentation listed below.

Conditions of approval for permit issuance:

1. **The completed and signed Permit Declarations form is required for permit issuance.** *Select ONE of the options below:*

   a) ***Property Owners:*** *If the property owner completes and signs the permit declarations form, they must also provide a completed Owner Builder Verification form, with notarization or a copy of the owner's ID for verification purposes.*

   If the property owner is an LLC, Articles of Organization listing registered agent(s) must be submitted for verification of individuals signing on behalf of the LLC.

   b) ***Contractors:*** *Must hold a current City of Berkeley business license. For information about business license application and renewals, visit https://berkeleyca.gov/doing-business/operating-berkeley/business-licenses*

   c) ***Owner's Agent:*** *If the owner's agent signs the permit declarations form, the agent must provide the Authorization of Agent form and Owner Builder Verification form, completed by the property owner, with notarization or a copy of the owner's ID for verification purposes*

2. Submit completed Permit Application Fee Schedules to add plumbing fees to the permit record. ***Note:*** *As of January 1st, 2023 an automatic gas shut off valve shall be installed when a plumbing or mechanical permit is issued for work on any building [BMC 19.34.040 section1209.4].*
3. Submit completed Construction Waste Management Plan, including GreenHalo tracking number, prior to permit issuance.
4. Provide payment for outstanding permit fees, totaling $38,724.20.

   This amount does not include itemized fees for plumbing permits. Additional fees may apply.

*See Document Submittal Instructions at the end of this letter.

February 27, 2026

Document Submittal Instructions

All required forms may be downloaded from the City of Berkeley website forms page at https://berkeleyca.gov/construction-development/permits-design-parameters/permit-types/permit-forms

For permit issuance, follow the instructions for payment and document formatting below.

Document formatting requirements:

- All permit documents must be submitted in electronic format, as unsecured PDF files.
- Documents with multiple pages must be combined and named according to content.
- Documents that are incomplete or improperly formatted will not be processed.

Document submittal options (choose one):

1) **Permits Online:**
    a. ***Conditions of approval documents:*** Upload submittal documents directly to the permit record at the Permits Online Portal, by selecting *Record Info* > *Attachments* > *Add*. Permit documents are accessible from the registered Accela Citizen Access (ACA) account associated with the permit.
    b. New/separate permit: Generate new request from a registered ACA account at the Permits Online Portal. Submit request under 'Building Permits' for work on private property, or 'Public Works' for work in the public right of way.
2) **In-Person:** Schedule an appointment for in-person processing through the Permit Service Center webpage. Note that for all in-person submittals, documents must be saved on a USB thumb drive.

Payments may be made online at the Permits Online Portal, by opening the permit record, and selecting *Building Permits >Payments > Pay Fees.* In-person payments may be made Mon-Thurs from 8:30AM and 2:00PM. Checks may be mailed to the address below.

Expiration of an issued permit: Permits issued by the building official shall expire one year from the date of issuance. The building official or the supervising building inspector are authorized to grant one or more extensions of time to complete the work for additional periods not exceeding one year per extension. The extension shall be requested in writing and justifiable cause demonstrated. Requests for time extensions shall be accompanied by the payment of a fee set by resolution of the City Council. [BMC 105.5]

To apply for an permit extension, complete an Permit Extension Request form, and choose one of the two submittal options listed above.

Project Information Permit #:

Address:

Mechanical Permit Fees (Minimum $127.00)

Qty	Fee Item	Fee
	Minimum Mechanical Permit Fee includes:	
1	• Mechanical Filing Fee	$22.00
1	• Mechanical Minimum Permit Fee	$100.00
1	• Mechanical Technology Fee	5%
	Air Handling Equipment *Up to 10,000CFM*	$26.30
	Air Handling Equipment *Over 10,000 CFM*	$39.30
	Boilers and Equipment[2] *Up to 100 kBTU*	$39.90
	Boilers and Equipment[2] *100 - 500 kBTU*	$54.00
	Boilers and Equipment[2] *Over 500 kBTU*	$129.00
	Central Heating[2] *Up to 100 kBTU*	$39.70
	Central Heating[2] *100 - 500 kBTU*	$54.00
	Central Heating[2] *Over 500 kBTU*	$129.00
	Ducts, Fans, Registers, Dampers	$11.90
	Gas Appliances (1-2)	$13.00
	Gas Appliances (3+)	$12.00
	Gas Pipe Outlets[1,3]	$5.60
	Gas Piping Extension, Alteration or Repair[1,3]	$12.20
	Gas Pressure Test[1]	$14.10
	Gas Meters[1,3] *New or Changed*	$13.10
	Hoods Commercial[2] *Type I*	$129.00
	Hoods Commercial[2] *Type II*	$79.70
	Hoods Residential[2]	$11.80
	Permit Extension	$57.00
	Pre-fab. Fireplaces[2]	$79.70
	Vent, Flue, Chimney	$13.10

1. Do not duplicate fees for gas work on mechanical and plumbing fee schedules

2. Includes attached ducts, flues, vents, registers, and associated electrical, except a new circuit run from panel

3. Includes Pressure Test

Electrical Permit Fees (Minimum $127.00)

Qty	Fee Item	Fee
	Minimum Electrical Permit Fee includes:	
1	• Electrical Filing Fee	$22.00
1	• Electrical Minimum Fee	$100.00
1	• Electrical Technology Fee	5%
	A. New Residential Buildings & Additions • Includes Device Outlets • Per 100 Sq Ft - Enter Total Sq Ft	$15.00
	B. Non-Residential Electrical Permit • $100,000 min valuation of electrial work • Includes all itemized fees list below • Enter total valuation of work	1%
	C. Itemized Fees:	
	Altering/Changing Wiring	$26.10
	Branch Circuits	$4.70
	Device Outlets *Receptacle, Switch, Light*	$2.70
	Electrical Meters *New or Changed*	$7.20
	Electrical Permit Extension	$57.00
	Electrical Vehicle Charging Station	$15.90
	Festoon Lighting	$10.00
	Fixed Appliance Outlet	$11.10
	Generators - up to 10KV *Total KV*	$7.20
	Generators - over 10KV *Total KV*	$1.90
	Motors - up to 10 HP *Total HP*	$7.20
	Motors - over 10 HP *Total HP*	$1.90
	PG&E Service Recheck	$11.90
	Service - New or Changed *Total Amps*	$11.90
	Signs and Outline Lighting	$26.50
	Solar Photovoltaic System	$26.10
	Subpanel - New or Changed *Total Amps*	$11.90
	Temporary Power Pole	$26.50
	Transformers - up to 10 KV *Total KV*	$4.80
	Transformers - over 10KV *Total KV*	$1.90
	X-Ray Capacitors	$26.50

Plumbing Permit Fees (Minimum $127.00)

Qty	Fee Item	Fee
	Minimum Plumbing Permit Fee includes:	
1	• Plumbing Filing Fee	$22.00
1	• Plumbing Minimum Permit Fee	$100.00
1	• Plumbing Technology Fee	5%
	A. New Residential Buildings & Additions • Includes fixtures & interior water lines • Per 100 Sq Ft - *Enter total Sq Ft*	$15.00
	B. Itemized Fees:	
	Fixtures *include sanitary drainage/venting*	$12.20
	Gas Pipe Outlets[1]	$5.60
	Gas Piping Extension/Alteration/Repair[1]	$12.20
	Gas Pressure Test Only[1]	$14.10
	Gas Meters *New or Changed*[1]	1 $13.10 2+ $9.10
	Graywater System *Single Family Dwelling, Duplex or ADU*	$39.90
	Graywater System *All Other Occupancies*	$105.70
	Inside Rain Leader	$27.40
	Lawn Sprinkler System *Single-Family Dwelling, Duplex or ADU*	$39.90
	Lawn Sprinkler System *Other Occupancies*	$105.70
	Nonpotable Rainwater Catchment System *Single-Family Dwelling, Duplex or ADU*	$39.90
	Nonpotable Rainwater Catchment System *Other Occupancies*	$105.70

Qty	Fee Item	Fee
	B. Itemized Fees (continued):	
	Plumbing Permit Extension	$57.00
	Pressure Test *Water or Air*	$14.40
	Removal of Illicit Connections	$12.20
	Sanitary Sewer Lateral	$34.00
	Seismic Gas Shut-Off Valve	$10.00
	Seismic Gas Shut-Off Valve *2+ Group Permit*	$50.00
	Solar Water Heater	$12.20
	Stand Pipe System	$129.10
	Subsoil Storm Drainage Piping	$34.00
	Swimming Pool Filtration System	$129.10
	Water Heater	$12.20
	Water Line *Total Outlets*	<26 $24.90 26+ $2.70
	Water Line *Hydronic Water Piping*	$24.90
	Water Main *Total Outlets*	<26 $24.90 26+ $2.70
	Water Meters *New or Changed*	1 $14.40 2+ $8.40ea
	Water Meters *Backflow Preventer*	$12.20

1. Do not duplicate fees for gas work on mechanical and plumbing fee schedules

Contractor Information *for Electrical, Mechanical and Plumbing permits*

☐ General ☐ Mechanical ☐ Electrical ☐ Plumbing

Name: Phone: Bus Lic #:

Company: State Lic #: Lic. Class:

Address:

Email:

☐ General ☐ Mechanical ☐ Electrical ☐ Plumbing

Name: Phone: Bus Lic #:

Company: State Lic #: Lic. Class:

Address:

Email:

Form #110

PERMIT DECLARATIONS

Building and Safety
Permit Service Center

Permit Declarations are required to be completed and signed at permit issuance.

For verification purposes, a copy of the property owner's driver's license, state issued identification card, passport, or form notarization is required to be presented at permit issuance and payment of permit fees.

Licensed Contractors must complete the following:

- Licensed Contractor's Declaration and Information
- Worker's Compensation Declaration

Property Owners and Owner's Agent must complete the following:

- Owner Builder Declaration
- Owner-Builder Verification and Limitation of Sale (separate form)
- Authorization of Agent (separate form required for owner's agent)

Contractors State License Board website: www.cslb.ca.gov

Permit Service Center
1947 Center St. 3rd floor
Berkeley, CA 94704
510-981-7500 TTY 6903
permits@cityofberkeley.info

Project Address:

Permit Number:

LICENSED CONTRACTOR'S DECLARATION AND INFORMATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Company Name:

License Number: Class: Exp. Date:

OWNER BUILDER DECLARATION

I hereby affirm under penality of perjury that I am exempt from the Contractors' State License Law for the reason(s) indicated below by the checkmark(s) I have placed next to the applicable item(s) (Section 7031.5, Business and Professions Code: Any city or county that requires a permit to construct, alter, improve, demolish, or repair any structure, sidewalk, or street prior to its issuance, also requires the applicant for the permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors' State License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt from licensure and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penality of not more than five hundred dollars ($500).

☐ I, as the owner of the property, or my employees with wages as their sole compensation, will do ☐ all of or ☐ portions of the work, and the structure is not intended or offered for sale (Section 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of property who, through employees' or personal effort, builds or improves the property, provided that the improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the Owner-Builder will have the burden of proving that it was not built or improved for the purpose of sale).

☐ I, as the owner of the property, am exclusively contracting with licensed Contractors to construct the project (Section 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of property who builds or improves thereon, and who contracts for the projects with a licensed Contractor pursuant to the Contractors' State License Law.) **Completion of the contractor's information above is required.**

☐ I am exempt from licensure under the Contractors' State License Law for the following reason:

By my signature below, I acknowledge that, except for my personal residence in which I must have resided for at least one year prior to completion of the improvements covered by this permit, I cannot legally sell a structure that I have built as an owner-builder if it has not been constructed in its entirety by licensed contractors. I understand that a copy of the applicable law, Section 7044 of the Business and Professions Code, is available upon request when this application is submitted, and can be found at the following website: http://leginfo.legislature.ca.gov/

PERMIT DECLARATIONS

WORKER'S COMPENSATION DECLARATION

Warning: Failure to secure workers' compensation coverage is unlawful, and shall subject an employer to criminal penalties and civil fines up to one hundred thousand dollars ($100,000), in addition to the cost of compensation, damages as provided for in section 3706 of the Labor Code, interest, and attorney fees.

I hereby affirm under penality of perjury one of the following declarations:

☐ I certify that the permit valuation is for five hundred dollars ($500.00) or less, and therefore exempt from workers' compensation as provided for by Section 7048 of the Business and Professions Code.

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, issued by the Director of Industrial Relations as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. **Certificate Number:**

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

Carrier Name:

Policy Number: Expiration Date:

Name of Agent: Phone Number:

☐ I certify that, in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that, if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

CONSTRUCTION LENDING AGENCY DECLARATION

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Section 8172, Civil Code).

Lender Name: Branch Designation:

Lender Address:

CITY ORDINANCES DECLARATIONS

☐ I understand my obligation to perform construction related work within prescribed hours as set forth in the City of Berkeley Noise Ordinance and/or Use Permit conditions. BMC 13.40.070

☐ I am aware of my responsibilities under the Relocation Ordinance. BMC 13.84

☐ I certify that I have read and shall use applicable portions of the State Storm Water Best Management Practices Manual for Construction to the maximum extent practicable.

LEAD HAZARD DECLARATION

☐ I am aware of my responsibilities to implement lead-safe work practices as required by the State of California Health and Safety Code Sections 17920.10 and 105256 when conducting renovation, repair, or painting work in pre-1978 residences, childcare facilities, or schools. I will ensure that any paint disturbing work will be done by or supervised by RRP certified individual(s). Failure to follow this rule may result in enforcement action by the EPA.

BAAQMD DECLARATION

☐ I am aware of my responsibilities to comply with the requirements of the Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2 pertaining to disturbing regulated asbestos-containing materials (RACM).

CERTIFICATE OF INDEMNIFICATION

☐ I hereby agree to defend, indemnify and hold harmless the City of Berkeley and it's officers and employees from any and all claims arising from work connected to this permit.

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION OF ENTRY

☐ I agree to comply with all state laws and city and county ordinances relating to building construction and authorize a representative of the City of Berkeley Building and Safety Division to enter upon the property for which I have applied for this permit for the purpose of making inspections.

By my signature below, I hereby affirm under penalty of perjury that each of the above declarations are true.

Check One: ☐ Contractor ☐ Owner ☐ Owner's Agent

Name	Signature	Date

Form #172

CONSTRUCTION WASTE MANAGEMENT PLAN

Building and Safety
Permit Service Center

Complete this form and submit it along with your building permit application when performing the following activities:

1. Any non-residential projects requiring building permits.

2. Residential new buildings.

3. Residential projects that increase a building's conditioned area, volume, or size.

4. Residential projects valued over $100,000.

5. Demolition permits valued over $3,000.

A minimum of 65% of the waste generated by construction and demolition activities must be diverted away from landfill disposal through any combination of recycling, salvage, reuse or composting. 100% of asphalt, concrete, and land clearing debris must be recycled.

Building and Safety
1947 Center St. 3rd floor
Berkeley, CA 94704
510-981-7440 TTY 6903
buildingandsafety@berkeleyca.gov

Project Information

Permit Number:

Project Address:

Construction Methods

☐ Waste generated during construction will be minimized through a combination of efficient design, carefull and accurate material ordering, handling and storage, panelized or prefabricated construction, reuse, and/or salvage.

Universal and Hazardous Waste

Disposal of asbestos-containing materials, batteries, electronic waste, fluorescent bulbs, lead based paints, mercury containing equipment and refrigerants, require special processing prior to commencement of construction or demolition activities. Additional information can be found at the Bay Area Air Quality Management District, Alameda County Healthy Homes Department, and the City of Berkeley Toxics Management Division. Please select the option that is applicable to your project.

☐ This project does not involve disposal of universal or hazardous waste.

☐ This project includes disposal of universal or hazardous waste in a responsible, safe and verifiable manner.

Diversion Documentation

Green Halo tracking is required for all projects generating 100 pounds (or 55 gallons) of waste or more. Please select the option that is applicable to your project.

☐ A Construction Waste Management Plan has been submitted via Green Halo at www.berkeley.wastetracking.com. Prior to permit final, weight tickets for all materials disposed and recycled must be uploaded. Photos are acceptable for salvaged/reused materials.

Green Halo Tracking Number:

☐ A letter will be provided to the Building Inspector at the time of final inspection affirming that this project has produced less than 100 pounds (or 55 gallons) of waste, all waste was site-sorted, and any waste that could be recycled was recycled properly through a waste disposal service provider, either on-site or at the contractor's office/shop. (This option is subject to approval for the duration of the project.)

Acknowledgment

I understand the waste diversion requirements of Berkeley Municipal Code 19.37 and submit this Construction Waste Management Plan pursuant to California Green Building Standards Code 4.408.2 or 5.408.1.1.

Name | Signature | Date

Last Revised 06/12/23

CITY OF BERKELEY

COMMUNITY WORKFORCE AGREEMENT

Table of Contents

Preamble

Purpose

Recitals

Article 1 Definitions

Article 2 Scope of Agreement

Article 3 Effect of Agreement/Subcontractors

Article4 Work Stoppages, Sympathy Strikes and Lockouts

Article5 Pre-Job Conference

Article 6 No Discrimination

Article 7 Union Security

Article 8 Referral and Local Hiring Program

Article 9 Helmets to Hardhats

Article 10 Grievance Procedure

Article 11 Joint Administrative Committee

Article 12 Grievance Arbitration Procedure

Article 13 Jurisdictional Disputes

Article 14 Apprentices

Article 15 Management Rights

Article 16 Wage/ Benefits

Article 17 Modified Master Labor Agreements

Article 18 Drug and Alcohol Testing

Article 19 Savings Clause

Article 20 Entire Agreement

Article 21 Term

Signatures

Agreement to be Bound

COMMUNITY WORKFORCE AGREEMENT
For the
City of Berkeley

This Agreement is made and entered into retroactively from July 1, 2023 by and between the City of Berkeley ("City") together with other contractors and/or sub-contractors, who shall become parties to this Agreement by signing the "Agreement to be Bound" (Attachment A), and the Local Unions signatory hereto and the Alameda County Building & Construction Trades Council ("Council") and its affiliated local unions who have executed this Agreement.

PURPOSE

The purpose of this Agreement is to support the efforts of the City to increase employment opportunities for workers who reside in Berkeley, to help increase training and employment opportunities for Berkeley residents in the construction trades through apprenticeship and pre-apprentice programs as the students graduate from the City's schools, to promote efficiency of construction operations performed for and within the City of Berkeley and to provide for peaceful settlement of labor disputes and grievances without strikes or lockouts, thereby promoting the public interest in assuring the timely and economical completion of the projects.

RECITALS

WHEREAS, the successful completion of the City's construction projects is of the utmost importance to the City of Berkeley; and

WHEREAS, the interests of the general public, the City, the Unions and Contractor(s) would be best served if the construction work proceeded in an orderly manner without disruption because of strikes, sympathy strikes, work stoppages, picketing, lockouts, slowdowns or other interferences with work; and

WHEREAS, the Contractor(s) and the Unions desire to mutually establish and stabilize wages, hours and calendar conditions for the workers employed on construction work for and within the City of Berkeley by the Contractor(s), and further, to encourage close cooperation among the Contractor(s) and the Union(s) to the end that a satisfactory, continuous and harmonious relationship will exist among the parties to this Agreement; and

WHEREAS, contracts for construction work within the City of Berkeley will be awarded in accordance with the applicable provisions of the Charter of the City of Berkeley, the California State Public Contract Code and the Labor Code, including but not limited to requiring competitive bidding and prevailing wages; and

WHEREAS, the City of Berkeley has the absolute right to select the lowest responsive and responsible bidder for the award of the construction contracts on the Projects; and

WHEREAS, the parties signatory to this Agreement pledge their full good faith and trust to work towards a mutually satisfactory completion of the Projects;

NOW, THEREFORE, IT IS AGREED BETWEEN AND AMONG THE PARTIES HERETO, AS FOLLOWS:

ARTICLE 1
DEFINITIONS

1.1 “Agreement” means this Community Workforce Agreement.

1.2 "Berkeley Resident" means any individual who is a current resident of Berkeley can certify through a utility bill, or other similar means acceptable to the parties to this Agreement that the individual resides within the boundaries of the Berkeley City Limits.

1.4 “City” means the City of Berkeley.

1.5 “Completion” means that point at which the City accepts a project at issue by filing a Notice of Completion, or as otherwise provided by applicable state law. “Punch list” items and any other work within the scope of this Agreement not completed prior to commencement of revenue service shall nonetheless be included within the scope of this Agreement. It is understood by the parties that portions of the Projects may be completed in phases and Completion of any such phase may occur prior to Completion of the Projects.

1.6 “Contractor(s)” and/or “Subcontractor(s)” means any individual, firm, partnership or corporation, or combination thereof, including joint ventures, which is an independent business enterprise and has entered into a contract with the City or any of its contractors or subcontractors of any tier, with respect to the construction work necessary for any part of the Projects. This shall include subcontractors not required to be listed in the bid documents. As applicable depending on its context, “Contractor” shall refer to Contractor or Contractor and Subcontractor.

1.7 “Construction Contract(s)” means all of the contract(s) for construction of any of the Projects.

1.8 “Council” means the Alameda County Building and Construction Trades Council, AFL-CIO.

1.9 "New Apprentice” is a Berkeley Resident who is enrolled in a State of California approved apprenticeship program that is a joint labor management apprentice program for no more than twenty-four months

1.11 “Projects” mean any construction project of the City whose value as estimated by the City meets or exceeds $500,000 (Five hundred thousand) dollars.

1.12 “Union” or “Unions” means the Council and any other labor organization signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have through their officers executed this Agreement.

1.13 “Project Manager” means the person or persons or business entity designated by the City to oversee all phases of construction on the Projects.

1.14 “Master Labor Agreement” or “MLA” shall mean the collective bargaining agreement of each craft Union that is Signatory to this Agreement

1.15 “Calendar Day” shall mean any day, relating to any day of the week including Saturday, Sunday and public holidays.

1.16 “ Apprenticeship Program” -Recognizing the need to develop adequate numbers of competent workers in the construction industry, the Contractor(s)/Employer(s) shall employ apprentices of a California State-approved Joint Apprenticeship Program in the respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured.

The apprentice ratios will be in compliance with the applicable provisions of the applicable “Master Labor Agreement”.

ARTICLE 2
SCOPE OF AGREEMENT

2.1 Parties: This Agreement shall apply and is limited to all Contractors and subcontractors performing Construction Contracts necessary for the Projects, the City, the Council and any other labor organization signatory to this Agreement, acting in their own behalf and behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have through their officers executed this Agreement.

2.2 Project Description: This Agreement shall govern the award of all of the Construction Contracts identified by the City as part of the Projects. The City has the absolute right to combine, change, consolidate, suspend or cancel Construction Contract(s) or portions of Construction Contract(s) identified as part of the Projects. Should the City suspend or remove any contract from the Projects and thereafter authorize that construction work be commenced on such contract, then such contract shall be performed under the terms of this Agreement. Once a Construction Contract is completed it is no longer covered by this Agreement except when a Contractor is directed to engage in repairs, warranty work or modifications required by its

Construction Contract with the City. For the purposes of this Agreement, a Construction Contract shall be considered Completed as set forth in Section 1.5 of this Agreement.

2.3 Covered work:

2.3.1 This Agreement covers, without limitation, all on-site construction, demolition, alteration, painting or repair of buildings, structures, landscaping, temporary fencing and other works and related activities for the Projects that is within the craft jurisdiction of one of the Unions and that is part of the Projects, including, without limitation, pipelines, site preparation, survey work, demolition of existing structures and all construction, demolition or improvements required to be performed as a condition of approval by any public agency. This scope of work includes all soils and materials testing and inspection where such testing and inspection is a classification in which a prevailing wage determination has been published.

2.3.2 The Projects include work necessary for the Projects and/or in temporary yards or areas adjacent to and dedicated to the Projects, and at any on-site batch plant(s) constructed solely to supply materials to the Projects, when those sites are dedicated exclusively to the Projects. This Agreement covers all on-site fabrication work over which the City, Contractor(s) or subcontractor(s) possess the right of control (including work done for the Projects in any temporary yard or area established for the Projects.)

2.3.3 The furnishing of supplies, equipment or materials which are stockpiled for later use shall in no case be considered subcontracting. Construction trucking work, such as the delivery of ready-mix, asphalt, aggregate, sand or other fill material which are directly incorporated into the construction process as well as the off-hauling of debris and excess fill material and/or mud, shall be covered by the terms and conditions of this Agreement, to the fullest extent provided by law and by prevailing wage determinations of the California Department of Industrial Relations. Employers, including brokers, of persons providing construction trucking work shall provide certified payroll records to the City within ten (10) calendar days of written request or as required by bid specifications.

2.4 Exclusions: The following shall be excluded from the scope of this Agreement:

2.4.1 This Agreement is not intended to, and shall not affect or govern the award of public works contracts by the City which are outside the identified scope of work of the Projects.

2.4.2 This Agreement is not intended to, and shall not affect the current or anticipated operation, maintenance, access or use of any of the City's buildings or facilities, whether or not such facilities are identified in Section 1.7 above.

2.4.3 This Agreement shall not apply to a Contractor or subcontractor’s executives, managerial employees, engineering employees, design employees, supervisors (except

those covered by existing building and construction trades collective bargaining agreements), office and clerical employees.

2.4.4 This Agreement shall not apply to any work performed on or near or leading to the site of work covered by this Agreement that is undertaken by state, county or other governmental bodies or their contractors; or by public or private utilities or their contractors; or by the City or its contractors for work not part of the scope of the Projects. Parties performing work shall notify in writing, The Council and The District of any work being performed near or leading to the site work that is not covered by this agreement. Further, this Agreement shall not be construed to prohibit or restrict the City or its employees from performing work on or around the Project construction sites or from entering the sites for any purposes deemed necessary or appropriate by the City.

2.4.5 This Agreement shall not apply to the off-site maintenance of leased equipment or the on-site supervision of such work.

2.4.6 This Agreement shall not apply to any start-up, calibration, performance testing, repair, maintenance, operational revisions to systems and/or subsystems performed after Completion.

2.5 Termination, Suspension and/or Delay of Work: It is understood and agreed that the City, at its sole option, may change, terminate, delay and/or suspend any and all portions of the covered work at any time. Further, the City may prohibit some or all work on certain days or during certain hours of the day to comply with applicable codes, laws or regulations, permits or to accommodate the ongoing operations of the City's facilities and/or to mitigate the effect of the ongoing Projects' work on the businesses and residents in the neighborhood of the Project sites; and/or require such other operational or schedule changes that it may be deemed necessary, in its sole judgment, to effectively maintain the primary purpose of the City's facilities and to remain a good neighbor to the residents and businesses in the area of any Projects. In order to permit the Contractors and Unions to make appropriate scheduling plans, the City will provide the affected Contractor and Union(s) with reasonable notice of any changes it requires pursuant to this Section.

2.6 Work covered by this Agreement within the following craft jurisdictions shall be performed under the terms of their National Agreements as follows: the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, and the National Agreement of Elevator Constructors, and any instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Technicians, with the exception that Articles 4, 8,12 and 13 of this Agreement shall apply to such work.

ARTICLE 3
EFFECT OF AGREEMENT/SUBCONTRACTORS

3.1 By executing this Agreement, the Unions and the City agree to be bound by each and every provision of this Agreement.

3.2 By accepting the award of a Construction Contract for the Projects, whether as contractor or subcontractor at any tier, the Contractor/Subcontractor agrees to be bound by each and every provision of this Agreement.

3.3 This Agreement shall only be binding on the signatory parties hereto and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any other party.

3.4 It is understood that this Agreement, together with the referenced MLA , constitute an integrated, self-contained, stand-alone agreement, and that by virtue of having become bound to this Agreement, the Contractor will not be obligated to sign any other local, area, or national agreement as a condition of performing work within the scope of this Agreement. In addition, it is understood and agreed that all grievances and disputes involving the interpretation or application of this Agreement, including the MLA, shall be resolved according to the procedures set forth in Article 12 of this Agreement; provided, however, that should a dispute involve a single MLA and a Contractor signatory thereto, and not involve interpretation or application of this Agreement, then such dispute shall be processed and resolved pursuant to the grievance provisions of that MLA. Should there be a dispute in the first instance as to whether the provisions of Article 12 of this Agreement or the grievance procedures of a MLA apply, the dispute shall be presented initially to arbitrator Judge William Cahill or, if unavailable, arbitrator Earnest Brown, for resolution as to the applicable procedure. Such referral of a dispute as to the applicable procedures shall be done by an immediate conference call among the parties and the arbitrator, and heard and decided within three (3) calendar days. Should the arbitrator hold that Article 12 applies, the parties may, by mutual agreement, submit the issue to the same arbitrator pursuant to the provisions of Article 12, or, absent mutual agreement, commence processing the dispute at Step 1 of that Article.

3.5 Subcontractors. At the time that any Contractor enters into a subcontract with any subcontractor of any tier for the performance of construction or construction trucking work within the scope of this Agreement, the Contractor shall provide a copy of this Agreement, as it may from time to time be modified by the negotiating parties, to said subcontractor and shall require the subcontractor as a part of accepting an award of a construction subcontract to agree to be bound by each and every provision of the Agreement prior to the commencement of work.

3.5.1 Each Contractor and Subcontractor shall evidence their agreement to be bound to this Agreement by executing the Agreement To Be Bound form attached hereto as Appendix A. A copy of the Agreement To Be Bound executed by the Contractors and Subcontractors shall be submitted to the Union(s) prior to both the commencement of work and the Pre-Job Conference and will be a required submittal within the City's bid packages. If the Contractor or Subcontractor refuses to execute the Agreement To Be

Bound, then such Contractor or Subcontractor shall not be awarded a Construction Contract to perform work on the Projects. A Contractor or Subcontractor who executes the Agreement to Be Bound shall be considered a signatory party to this Agreement.

3.6 It is understood that the liability of each Contractor and Subcontractor and the liability of each Union under this Agreement shall be several and not joint. The Unions agree that this Agreement does not have the effect of creating any joint employment status between or among the City and/or any Contractor or Subcontractor.

3.7 With regard to any Contractor or subcontractor that is independently signed to any MLA, this Agreement shall in no way supersede or prevent the enforcement of any subcontracting clause contained in such MLA, except as specifically set forth in section 3.7.1 of this Agreement. Any such subcontracting clause in a MLA shall remain and be fully enforceable between each craft union and its signatory employers and no provision of this Agreement shall be interpreted and/or applied in any manner that would give this Agreement precedence over subcontracting obligations and restrictions that exist between craft Unions and their respective signatory employers under a MLA, except as specifically set forth in section 3.7.1 in this Agreement. To the extent that the provisions of this Agreement are inconsistent with any other provisions contained in a MLA, the provisions of this Agreement shall prevail

3.7.1 If a craft Union ("Aggrieved Union") believes that an assignment of work on this Project has been made improperly by a Contractor or subcontractor, even if that assignment was as a result of another craft Union's successful enforcement of the subcontracting clause in its MLA, as permitted by section 3.7 of this Agreement, the Aggrieved Union may submit a claim under the jurisdictional dispute resolution procedure contained in Article 13 of this Agreement and the decision rendered as part of that process shall be enforceable to require the Contractor or subcontractor that made the work assignment to assign that work prospectively to the Aggrieved Union. An award made to a craft Union under the subcontracting clause of its MLA, as permitted under section 3.7 of this Agreement, shall be valid and fully enforceable by that craft Union unless it conflicts with a jurisdictional award made pursuant to Article 12 of this Agreement. If the award made under MLA conflicts with the jurisdictional award, the award of any damages under the former shall be null and void *ab initio.*

ARTICLE 4
WORK STOPPAGES, STRIKES, SYMPATHY STRIKES, JURISDICTIONAL DISPUTES AND LOCKOUTS

4.1 The Unions, City and Contractor agree that for the duration of the Projects:

4.1.1 There shall be no strikes, sympathy strikes, work stoppages, picketing, hand-billing or otherwise advising the public that a labor dispute exists, or slowdowns of any kind, for any reason, by the Unions or construction persons employed on the Projects, at a job site of the Projects or at any other facility of the City because of a dispute on the Projects. Nor shall the Unions or construction persons employed on the Projects participate in any strikes, sympathy strikes, work stoppages, picketing, hand billing,

slowdowns, or otherwise advising the public that a labor dispute exists at a Project jobsite because of a dispute between Unions and Contractor(s) on any other project.

4.1.2 As to construction persons employed on the Projects, there shall be no lockout of any kind by a Contractor covered by this Agreement. It shall not be a violation of this Article if a Contractor or Subcontractor (1) suspends or terminates a portion of the Project work or (2) discharges an employee for just cause.

4.1.3 If a MLA between a Contractor and the Union expires before the Contractor completes the performance of a Construction Contract and the Union or Contractor gives notice of demand for a new or modified MLA, the Union agrees that it will not strike, picket, hand-bill, slowdown or engage in any other disruptive activity against the Contractor and the Contractor will not lockout construction persons of the Union on said Construction Contract for work covered under this Agreement and the Union and the Contractor agree that the expired MLA shall continue in full force and effect for work covered under this Agreement until a new or modified MLA is reached between the Union and Contractor. If the new or modified MLA reached between the Union and Contractor provides that any terms of the new MLA shall be retroactive, the Contractor agrees to comply with any retroactive terms of the new or modified MLA which are applicable to construction persons employed on the Projects within seven (7) calendar days.

4.2 A party to this Agreement shall institute the following procedure, prior to invoking any other action at law or equity when a breach of this Article 4 is alleged to have occurred:

4.2.1 A party invoking this procedure shall notify, by the most expeditious means available, with notice by facsimile, electronic mail or telephone to the City, to the party alleged to be in violation, to the Council and to the involved local Union if a Union is alleged to be in violation.

4.2.2 Upon receipt of said notice, the City will contact the designated permanent arbitrator, Judge William Cahill, or if unavailable, his alternate Ernest Brown, who shall attempt to convene a hearing within twenty-four (24) hours if it is contended that the violation still exists.

4.2.3 The Arbitrator shall notify the parties by facsimile, electronic mail or telephone of the place and time for the hearing. Said hearing shall be completed in one session, which, with appropriate recesses at the arbitrator's discretion, shall not exceed twenty-four (24) hours unless otherwise agreed upon by all parties. A failure of any party to attend said hearings shall not delay the hearing of evidence or the issuance of any award by the arbitrator.

4.2.4 The sole issue at the hearing shall be whether or not a violation of Article 4, Section 4.1 of this Agreement has occurred. The arbitrator shall have no authority to consider any matter of justification, explanation or mitigation of such violation or to

award damages, which issue is reserved for court proceedings, if any. The award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) calendar days, but its issuance shall not delay compliance with or enforcement of the award. The arbitrator may order cessation of the violation of this Article 4 and other appropriate relief and such award shall be served on all parties by hand or registered mail upon issuance.

4.2.5 Such award may be enforced by any Court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to above in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the arbitrator's award as issued under Section 4.2.4 of this Article 4, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order or enforcement. The Court's order or orders enforcing the arbitrator's award shall be served on all parties by hand or delivered by certified mail.

4.2.6 Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance are waived by the parties.

4.2.7 The fees and expenses of the arbitrator shall be divided equally between the party instituting the arbitration proceedings provided in this Article and the party alleged to be in breach of its obligations under this article.

4.3 Liquidated Damages. If the arbitrator determines that a violation of Section 4.1 has occurred, the breaching party shall, within eight (8) hours of the issuance of the decision take all steps necessary to immediately cease such activities and return to work. If the breaching party involved does not cease such activities by the beginning of the next regularly scheduled shift following the expiration of the eight (8) hour period after the arbitrator's issuance of the decision, then the breaching party shall pay the sum of ten thousand dollars ($10,000) as liquidated damages to the City per shift until the breach is remedied. The arbitrator shall retain jurisdiction for the sole purpose of determining compliance with this obligation and determining the amount of liquidated damages, if any; but such retention shall not prevent the moving party from seeking judicial enforcement of the initial decision.

ARTICLE 5
PRE-JOB CONFERENCE

5.1 A mandatory pre-job conference shall be held prior to the commencement of each Construction Contract. Such conference shall be attended by a representative each from the participating Contractor(s) and Union(s) and the Project Manager. All efforts will be made to hold the pre-job conference in sufficient time to ensure all parties the ability to properly raise and resolve any issue that may arise out of such meeting, with a

goal that such conferences will be held at least 21 work days before the work commences.

ARTICLE 6
NO DISCRIMINATION

6.1 The Contractors and Unions agree not to engage in any form of discrimination on the ground of or because of race, color, creed, national origin, ancestry, age, religious or political affiliation, gender, sexual orientation or disability against any person, or applicant for employment on the Projects.

ARTICLE 7
UNION SECURITY

7.1 The Contractors recognize the Union(s) as the sole bargaining representative of all construction persons working within the scope of this Agreement.

7.2 All construction persons who are employed by the Contractor(s) shall, as a condition of employment, on or before the eighth (8th) day of consecutive or cumulative employment on the Projects, be responsible for the payment of the applicable monthly working dues and any associated fees uniformly required for union membership in the applicable local union which is signatory to this Agreement. Further, there is nothing in this Agreement that would prevent non-union construction persons from joining the local union.

ARTICLE 8
REFERRAL AND LOCAL HIRE PROGRAM

8.1 Referral

8.1.1 Contractor (s) performing construction work on the Projects described in the Agreement shall, in filling craft job requirements, utilize and be bound by the registration facilities and referral systems established or authorized by the Unions signatory hereto ("Job Referral System"). Such Job Referral System will be operated in a non-discriminatory manner and in full compliance with all federal, state, and local laws and regulations, including those which require equal employment opportunities and nondiscrimination.

8.1.2 The Contractor(s) shall have the right to reject any applicant referred by the Union(s), in accordance with the applicable Master Agreement.

8.1.3 The Contractor(s) shall have the unqualified right to select and hire directly all supervisors above general foreman it considers necessary and desirable, without such persons being referred by the Unions(s).

8.1.4 In the event that referral facilities maintained by the Union(s) are unable to fill the requisition of a Contractor(s) for employees within a seventy-two (72) hour period after

such requisition is made by the Contractor(s), the Contractor(s) shall be free to obtain employees from any source. Contactor(s) shall promptly notify the Union(s) of any applicants hired from other sources. This provision does NOT affect core employees as defined below.

8.1.5 Unions shall exert their utmost efforts to recruit sufficient numbers of skilled craft persons to fulfill the requirements of the Contractor(s).

8.1.6 Core Employees

All parties agree to make a good faith effort to refer on a priority basis, consistent with the non-discriminatory referral procedures of the hall, qualified and available, and bona-fide Berkeley Residents for Project work.

8.1.7 The parties also recognize and support the City's commitment to provide opportunities for participation on the Projects to Berkeley Residents who are regular, experienced employees ("Core" employees) of contractors and subcontractors awarded work on the Projects and who do not traditionally work under a local collective bargaining agreement(s). In furtherance of this commitment, the parties agree that such contractors and subcontractors awarded work on the Projects may request by name, and the local will honor, referral of persons who have applied to the local union for Project work and who demonstrate the following qualifications:

(1) Possess any license required by state or federal law for the Project work to be performed;

(2) Have worked a total of at least one thousand (1,000) hours in the construction craft during the prior three (3) years;

(3) Were on the Contractor's active payroll for at least sixty (60) out of the one hundred and eighty (180) calendar days prior to the contract award;

(4) Have the ability to perform safely the basic functions of the applicable trade, and

(5) Are Berkeley residents.

The Union will refer to such Contractor one journeyman employee from the hiring hall out-of-work list for the affected trade or craft, and will then refer one of such Contractor's "core" employees as a journeyman and shall repeat the process, one and one, until such Contractor's crew requirements are met or until such Contractor has hired five (5) "core" employees, whichever occurs first. Thereafter, all additional employees in the affected trade or craft shall be hired exclusively from the hiring hall out-of-work list(s). For the duration of the Contractor's work the ratio shall be maintained and when the Contractor's workforce is reduced, employees shall be reduced in the same ratio of core employees to hiring hall referrals as was applied in the initial hiring.

8.1.8 The Contractor shall notify the appropriate Union of the name and social security number of each direct hire and each direct hire shall register with the Union's hiring hall before commencing Project work. If there is any question regarding an employee's eligibility under this Subsection 8.2.1, the City Representative, at a Union's request, shall obtain satisfactory proof of such from the Contractor.

8.2 Local Hire

8.2.1 To the extent allowed by law and consistent with the non-discriminatory referral procedures of the Union hiring halls, the Parties agree to a goal that Berkeley Residents will perform a minimum of 20% of the hours worked, on a craft by craft basis for the Projects. The Contractor(s) shall make good faith efforts to reach this goal through the utilization of the Unions' hiring hall procedures. The Unions shall exercise their best efforts in their recruiting and training of Berkeley Resident workers and in their hiring hall procedures to facilitate this 20% goal on the Projects. In the event that referral facilities maintained by the Union(s) are unable to fulfill the 20% local hire requirement, paragraph 8.2.2 of this Article shall not apply. Contractors shall document all efforts to hire locally and provide such documents to the City of Berkeley. The Council will provide an annual census of Berkeley residents, in each of the crafts party to this agreement, to the City of Berkeley. This report will be provided by August 1 of each year of this agreement.

.

8.2.2 Should any of the contractors performing work on the Projects fail to meet this 20% goal and fail to demonstrate efforts to do so, through a specific submittal process to be included in their contractual requirements and enforced by the grievance procedure. The contract's 10% retention will be held until such time that this failure is remedied, but not longer than sixty (60) calendar days after the date of substantial completion of the Projects or as required by law, in addition to the breach of contract remedies available to the parties for non-performance under this Agreement.

8.2.3 Apprenticeship & Workforce Development

A) Consistent with the requirements of California Labor Code §§ 1776, 1777.5 and 1777.6, Contractor(s) will be required to hire 1 New Apprentice Berkeley resident as for every $500,000 dollars or more of total construction bid amount. The New Apprentice(s) must work a minimum of 10% of the projects work hours. The contractor may deploy the apprentice to work on another concurrent project in order to meet the minimum hours, and those hours will be counted towards the total hours of the craft on the Berkeley project. Certified Payroll must reflect the hours worked.

Contractor must fully document efforts to hire a New Apprentice, through the following steps: 1) requesting New Apprentices through the Union dispatch procedure, 2) contacting a minimum of three MC3-approved pre-apprenticeship training programs for referral of Berkeley residents. Unions shall provide written documentation to the contractor in response to dispatch requests to fulfill the New Apprentice requirement, the next tier of residents will come from the Green Corridor.

B) There can be no more than 1 entry-level New Apprentices for each craft, provided said crafts have apprenticeship openings and the general contractor will be able to include New Apprentices hired by their subcontractor to meet this requirement. Unions will agree to cooperate with Contractor(s) in furnishing apprentices as requested and the hiring of the apprentices will be in accordance to the Apprenticeship provisions listed in the Master Agreements and or the union agreements with the division of apprenticeship standards, and the apprentices shall be properly supervised and paid in accordance with provisions contained within the MLA'S. The Unions and Contractors will agree to cooperate with local pre-apprenticeship programs to ensure Berkeley residents have the opportunity to apply for and enter the into the apprenticeship programs.

C) The intent of this provision is to utilize Berkeley Resident New Apprentices to the fullest extent permissible by state law and the MLA. Failure of Contractor(s) and their subcontractors to maintain qualified apprentices on the job will be subject to further penalties as determined by the Grievance Committee as identified in Article 12.

8.11 Enforcement, Compliance & Reporting.

Contractors will be required to submit Certified Weekly Payrolls to the City along with monthly workforce utilization reports documenting the Contractor's compliance with the requirements described in this article. At a minimum the monthly reports must include 1) data on Berkeley Resident's work hour utilization on a craft by craft basis, 2) number of New Apprentices hired and the hours they have worked, 3) documentation showing any requests made to the union dispatchers for Berkeley Residents and the Union's response to the request. Enforcement of this article shall be according to the Grievance and Arbitration procedure outlined in Article 12.

ARTICLE 9
HELMETS TO HARDHATS

9.1 The parties recognize a desire to facilitate the entry into the Building and Construction Trade Union(s) of Veterans who are interested in careers in the building and construction industry. The parties agree to utilize the services of the Center for Military Recruitment, Assessment and Veteran's Employment ("Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

9.2 The Union(s) and Contractor(s) agree to coordinate with the Center to participate in an integrated database of Veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Union(s) will give credit to such Veterans for bona fide, provable past experience.

ARTICLE 10
GRIEVANCE PROCEDURE

10.1 Any Contractor which is not otherwise bound through an agreement with a Union to a grievance procedure which confers jurisdiction to consider and resolve disputes over the imposition of discipline or dismissal of its construction persons working on this Project shall be bound to the arbitration procedure contained in the MLA of the craft representing the employee(s) involved in the dispute. For the purposes of this Article, such grievance procedure shall be limited to disputes regarding the imposition of discipline or dismissal arising from work covered by the Agreement. Such Contractor shall not impose discipline or dismissal on its construction persons covered by this Agreement without just cause.

ARTICLE 11
JOINT ADMINISTRATIVE COMMITTEE

11.1 The parties to this Agreement shall establish a five (5) person Joint Administrative Committee comprised of at least one and up to two (2) representatives representing the City; two (2) representatives of the signatory Unions and The Council; and one industry representative, mutually selected by the City and The Council. Each representative shall designate an alternate who shall serve in his or her absence for any purpose contemplated by this Agreement.

11.2 The Joint Administrative Committee shall meet at the request of either party, but not less than once each quarter, to review the implementation of the Agreement and the progress of the Projects including, but not limited to, compliance with Article 8, prevailing wage, safety, Workforce development and Industry trends. Requests for certified payroll made by a Joint Labor/Management Committee to which the Union(s) signatory to this Agreement are a party shall be provided as allowed by law.

ARTICLE 12
GRIEVANCE ARBITRATION PROCEDURE

12.1 The parties understand and agree that in the event any dispute arises out of the meaning, interpretation or application of the provisions of this Agreement, the same shall be settled by means of the procedures set out herein. No grievance shall be recognized unless the grieving party provides notice in writing to the signatory party with whom it has a dispute within seven (7) calendar days after becoming aware of the dispute, but in no event more than thirty (30) calendar days after it reasonably should have become aware of the event giving to the dispute. The time limits in this Article 12 may be extended by mutual written agreement of the parties.

12.2 Grievances shall be settled according to the following procedures:

Step 1: Within seven (7) calendar days after the receipt of the written notice of grievance, the Business Representative of the involved Local Union, the City's authorized representative, representative of the construction person, and the representative of the involved Contractor shall confer and attempt to resolve the grievance.

Step 2: In the event that the representatives are unable to resolve the dispute within seven (7) calendar days after its referral to Step 1, either involved party may submit it within three (3) calendar days to Grievance Committee. The Grievance Committee shall consist of one (1) person selected by the City and one (1) person selected by the Council, which shall meet within seven (7) calendar days after such referral (or such longer time as mutually agreed upon by all representatives of the subcommittee), to confer in an attempt to resolve the grievance. The decision of the Grievance Committee shall be legal, final and binding. If the dispute is not resolved within such time seven (7) calendar days after its referral or such longer time as mutually agreed upon) it may be referred within seven (7) calendar days by either party to Step 3.

Step 3: Within seven (7) seven calendar days after referral of a dispute to Step 3, the representatives shall submit the matter to the designated permanent Arbitrator, Judge William Cahill.

12.3 In the event that Judge Cahill is unavailable, the arbitrator shall be Earnest Brown.

12.4 The Arbitrator shall arrange for a hearing no later than fourteen days (14) calendar days after the matter has been submitted to arbitration. A decision shall be given to the parties within five (5) calendar days after completion of the hearing unless such time is extended by mutual agreement. A written opinion may be requested by a party from the Arbitrator. The time limits specified in any step of the Grievance Procedure set forth in Section 12.1 may be extended by mutual agreement of the parties initiated by the written request of one party to the other, at the appropriate step of the Grievance Procedure. However, failure to process a grievance, or failure to respond in writing within the time limits provided above, without the request for an extension of time, shall be deemed a waiver of such grievance without prejudice, or without precedent to the processing of and/or resolution of like or similar grievances or disputes.

12.5 The decision of the Arbitrator shall be binding by all parties. The Arbitrator shall not have authority to change, amend, add, or detract from any of the provisions of the Agreement. The expense of the Arbitrator shall be borne equally by both parties.

12.6 In order to encourage the resolution of disputes and grievances at Step 1 and 2 of this Grievance Procedure, the parties agree that such settlements shall not be precedent-setting.

ARTICLE 13
JURISDICTIONAL DISPUTES

13.1 The assignment of Covered Work will be solely the responsibility of the Contractor/Employer(s) performing the work involved; and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.

13.2 All jurisdictional disputes on this Project between or among the Union(s) and the Contractor/Employer(s), parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department, or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractor/Employer(s) and Union(s) parties to this Agreement.

13.2.1 If a dispute arising under this Article involves the Northern California Carpenters Regional Council or any of its subordinate bodies, an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsch and Thomas Pagan and the Arbitrator's hearing on the dispute shall be held at the offices of the California State Building and Construction Trades Council in Sacramento, California, within fourteen (14) calendar days of the selection of the Arbitrator. All other procedures shall be as specified in the Plan.

13.3 All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Contractor/Employer(s)' assignment shall be adhered to until the dispute is resolved. Individuals violating this Section shall be subject to immediate discharge.

13.4 Each Contractor/Employer(s) shall conduct a Pre-Job Conference with the Council prior to commencing Covered Work. The Primary Employer, Coordinator and the District will be advised in advance of all such conferences and may participate if they wish. Pre-job conferences for different Contractor(s) may be held together.

ARTICLE 14
APPRENTICES

14.1 Recognizing the need to maintain continuing support of programs designed to develop adequate numbers of competent workers in the construction industry, the Contractor (s) shall employ apprentices in the respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured.

14.2 The apprentice ratios will be in compliance with the applicable provisions of the California Labor Code and Prevailing Wage Rate Determination.

14.3 There shall be no restrictions on the utilization of apprentices in performing the work of their craft provided they are properly supervised.

14.4 All Apprentices will come from a State approved Labor Management Apprenticeship program.

ARTICLE 15
MANAGEMENT RIGHTS

15.1 The Contractor shall retain full and exclusive authority for the management of their operations, including the right to direct their work force in their sole discretion with regard to the following: the hiring, promotion, transfer, layoff, corrective action or discharge for just cause of its employees (in accordance with Article 9); the determination of the number of employees needed for the Project work; the selection/hiring of foremen and supervisors; the assignment and schedule of work; the requirement of overtime work, the determination of when it will be worked, and the number of employees engaged in such work, except as otherwise limited by the terms of this Agreement and/or the MLA. No rules, customs or practices shall be permitted or observed which limit or restrict production, or limit or restrict the working efforts of construction persons except that the lawful manning provisions of the MLA shall be recognized.

ARTICLE 16
WAGES/BENEFITS

16.1 **Wages.** All construction persons covered by this Agreement shall be classified in accordance with work performed and paid the hourly wage rates for those classifications in the applicable MLA for such craft work and in compliance with the applicable prevailing wage rate determination.

16.2 **Benefits.** Contractor agrees to pay contributions into established construction person benefit funds in the amounts designated in the appropriate MLA; provided, however, that each Contractor and Union agree that only such bona fide construction person benefits as included in the prevailing wage determination shall be included in this requirement and required to be paid by the Contractor under this Agreement; provided further, however, that this provision does not relieve Contractors signatory to a local collective bargaining agreement with a signatory Union which would be applicable to the Projects from making

any other fund contributions (including, but not limited to, those for contract administration), required by such local agreement. Contractor shall not be required to pay contributions to any other trust funds to satisfy their obligation under this Article. By signing this Agreement, the Contractors adopt and agree to be bound by the written terms of the legally established Trust Agreements, specifying the detailed basis on which the payments are to be made into, and the benefits paid out of, such Trust Funds.

16.3 **Compliance.** It shall be the responsibility of the Contractor(s) and Unions to investigate and monitor compliance with the provisions of the agreement contained in Article 15. Nothing in this agreement shall be construed to interfere with or supersede the usual and customary legal remedies available to the Unions and/or employee benefit Trust Funds to collect delinquent Trust Fund contributions from Contractors on the Project.

ARTICLE 17
MODIFIED MASTER LABOR AGREEMENTS

17.1 Certain Provisions Shall Not Apply. Provisions negotiated into the new or modified MLA which are less favorable to the Contractor than those uniformly required of employers for construction work normally covered by those agreements or which may be construed to apply exclusively or predominately to work covered by this Agreement shall not apply to work covered by this Agreement. Any disagreement between the parties regarding the application of the provisions of any new or modified collective bargaining agreement to work covered by this Agreement shall be resolved under the dispute and grievance arbitration procedures set forth in Article 12 hereof.

ARTICLE 18
DRUG and ALCOHOL TESTING

18.1 The use, sale, transfer, purchase and/or possession of a controlled substance, alcohol and/or firearms at any time during the work day is prohibited.

18.2 Employer shall be allowed to utilize employment drug screens. All personnel are subject to random alcohol and drug/alcohol testing at any time, except, the following changes will apply. Employer shall follow said Unions Master Labor Agreement drug polices, regulations and limits. Body fluid tests will utilize urine and saliva specimens. Employer may also selectively require an employee to undergo alcohol or drug/alcohol testing if Employer has reasonable cause to believe that an employee's ability to work safely may be impaired. All requirements and activities of the Employer with regard to drug/alcohol testing shall comply with the provisions of State law.

ARTICLE 19
SAVINGS CLAUSE

19.1 The parties agree that in the event any article, provision, clause, sentence or word of this Agreement is determined to be illegal or void as being in contravention of any applicable law, by a court of competent jurisdiction the remainder of the Agreement shall remain in full force and effect. The parties further agree that if any article, provision, clause, sentence or word of the Agreement is determined to be illegal or void, by the court of competent jurisdiction, the parties shall substitute, by mutual agreement, in its place and stead, an article, provision, clause, sentence or word which will meet the objections to its validity and which will be in accordance with the intent and purpose of the article, provision, clause, sentence or word in question.

19.2 The parties also agree that in the event that a decision of a court of competent jurisdiction materially alters the terms of this Agreement such that the intent of the parties is defeated, then the entire Agreement shall be null and void.

ARTICLE 20
ENTIRE AGREEMENT

20.1 This Agreement represents the complete understanding of the parties. The provisions of this Agreement, including the MLA, shall apply to the work covered by this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a MLA, the provisions of this Agreement shall prevail. Where a subject is covered by the provisions of a MLA and is not covered by this Agreement, the provisions of the MLA shall prevail. Nothing contained in a MLA, working rule, by-laws, constitution or other similar document of the Unions shall in any way affect, modify or add to this Agreement unless otherwise specifically set forth in this Agreement or mutually agreed to in writing executed by the parties.

20.2 The parties agree that this Agreement covers all matters affecting wages, hours, and other terms and conditions of employment and that during the term of this Agreement the parties will not be required to negotiate on any further matters affecting these or any other subject not specifically set forth in this Agreement except by mutual agreement of the parties.

20.3 This Agreement may be executed in counterparts, such that original signatures may appear on separate pages and when bound together all necessary signatures shall constitute an original. Facsimile signature pages transmitted to other parties to this Agreement shall be deemed the equivalent to original signatures.

ARTICLE 21
TERM

21.1 The Agreement shall be included as a condition of the award of the Construction Contracts.

21.2 The Agreement shall continue in full force and effect for a term of three years from the Effective Date of July 1, 2023 through June 30, 2026 and shall be applicable to all Projects until completion that are advertised for bidding during the term.

21.3 This Agreement shall continue in full force and effect until Completion of the Project. The parties may mutually agree to extend and/or amend this Agreement.

SIGNATURES

City of Berkeley

By:_____

Dee Williams-Ridley, City of Berkeley City Manager

Date:_____

Alameda County Building & Construction Trades Council, AFL-CIO

By:_____

Andreas Cluver, Secretary-Treasurer for the Building Trades Council of Alameda County on behalf of the Signatory Unions

Date: _____

Signatory Unions

Asbestos Workers, Local 16 Boilermakers, Local 549

Bricklayers & Allied Craftsmen

Local 3 Cement Masons, Local 300

Electrical Workers, Local 595

Elevator Constructors, Local 8

Hod Carriers, Local 166

Iron Workers, Local 378

Laborers, Local 67

Laborers, Local 304

Operating Engineers,

Local 3 Plasterers, Local 66

Roofers, Local 81

Sheet Metal Workers, Local 104

Sign Display, Local 510

Sprinkler Fitters, Local 483

Teamsters, Local 853

United Association of Journeymen and Apprentices Fitting Industry, Underground Utility & Landscape, Local 355

United Association of Steamfitters, Ironworkers City and the RDA Council of Pipefitters, Plumbers, & Gas California Fitters, Local 342

Council No. 16 Northern California

International Union of Laborers
Painters & Allied Trades (On behalf of Painters, Local 3; Carpet & Linoleum Layers, Local 12; Glass Workers, Local 169; Auto& Marine Painters, Local 1176)

Northern California Carpenters
Regional Council (on behalf of Carpenters, Local 713; Carpenters, Local 2236; Lathers, Local 68L; Millwrights, Local 102; Pile Drivers, Local 34)

AGREEMENT TO BE BOUND

The undersigned, as a Contractor or Subcontractor ("Contractor") on a City Project (“Project”), for and in consideration of the award to it of a contract to perform work on said Project, and in further consideration of the mutual promises made in the Project’s Community Workforce Agreement ("Agreement"), a copy of which was received and is acknowledged, hereby:

1. Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made to said Agreement.

2. Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of said Agreement;

3. Agrees to secure from any Contractor (as defined in said Agreement) which is or becomes a subcontractor (of any tier) to it, and from any successors, a duly executed Agreement to be bound in form identical to this document.

4. Contractor agrees that it shall be bound by all applicable trust agreements and plans for the provision of such fringe benefits as accrue to the direct benefit of the construction persons, including Health and Welfare, Pension, Training, Vacation, and/or other direct benefits provided pursuant to the appropriate craft agreement contained in Schedule "A" of Agreement.

Date: _____

Company Name: _____

Name of Prime Contractor or Higher Level Subcontractor:

_____

Name of Project: _____

Signature:_____

Print Name: _____

Title: _____

Contractor’s License #: _____

Motor Carrier Permit (CA) #: _____

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

Asbestos and Lead Survey Report

Public Works Building
1947 Center Street
Berkeley, CA

April 2025

Acumen Project No. COB 2446

Prepared for:

City of Berkeley
Parks, Recreation & Waterfront Department
1947 Center Street, 5th Floor
Berkeley, CA 94704

Prepared by:

Tam Pham, CAC (April 15, 2025)
Certified Asbestos Consultant #13-5033
CDPH Lead Accredited #LRC-00004523

Reviewed by:

Paul M. Spillane, CIH, CAC (April 15, 2025)
Certified Asbestos Consultant #10-4630
CDPH Lead Accredited #LRC-00004523

Table of Contents

Asbestos and Lead Survey Report
1947 Center Street
Berkeley, CA

April 2025

1.0 INTRODUCTION 2

2.0 SUMMARY OF INVESTIGATION 2

2.1 Review of previous reports 2
2.2 Asbestos Survey Methods 3
2.3 Lead-Containing Materials and Paint Survey Methods 4

3.0 NARRATIVE SUMMARY OF FINDINGS 4

4.0 DETAILED FINDINGS AND DISCUSSION 5

4.1 Previous Findings and Discussion 5
4.2 Asbestos Findings and Discussion 5
4.2.1 Friable Asbestos Containing Materials 5
4.2.2 Non-Friable Asbestos Containing Materials 5
4.2.3 Assumed Asbestos Material (Not Sample) 5
4.2.4 Regulated Asbestos Containing Materials 6
4.2.5 Non-Asbestos Containing Materials 7
4.3 Detailed Lead Findings and Discussion 7
4.3.1 Lead-Based Paint 7
4.3.2 Lead-Containing Paint 7
4.3.3 Non-Lead-Containing Paints 8

5.0 RECOMMENDATIONS 8

5.1 ACMs/LCMs During Building Demolition or Renovations 8

6.0 MANAGING ACM/LBP IN PLACE (FOR PORTIONS TO REMAIN) 8

7.0 CONCLUSIONS 8

8.0 LIMITATIONS 9

TABLES

Table 1 Summary of Asbestos-Containing Materials
Table 2 Non-Asbestos Containing Materials
Table 3 Summary of Lead Paint Sample Results

APPENDICES

Appendix A Laboratory Reports
Appendix B Sample Location Floor Plans
Appendix C Photograph
Appendix D Previous Reports

1.0 Introduction

The purpose of this report is to present and discuss the findings of an asbestos and lead materials investigation that Acumen Industrial Hygiene, Inc. (Acumen) conducted for the City of Berkeley, the Client, at the Public Works Building (Site). The Site is a six-story building with the penthouse and the basement located at 1947 Center Street in Berkeley, California. Acumen's representative, Mr. Tam Pham, a registered California Asbestos Consultant (CAC) and Lead Inspector/Assessor (I/A), conducted this investigation on February 27, 2025.

We understand the purpose of this survey is to support the ongoing operations and maintenance (O&M) of asbestos-containing building materials (ACBM) and lead-containing paints (LCP) and wall repair in the safe room on the first floor. At the time of the survey, the building was occupied. Our inspection was limited to accessible areas of the building, and we did not include wall cavities. Our sampling primarily targeted suspected damaged friable asbestos materials, while we also observed non-friable materials presumed to contain asbestos (not sampled). Destructive sampling of the building's roof was not conducted during this investigation.

The objectives of this investigation were as follows:

- To identify regulated asbestos containing materials (RACMs), defined by Bay Area Air District (BAAD). RACMs and Category I and II materials that will be rendered friable need to be removed if they are to be impacted by building renovation and before the building can be demolished.
- To identify asbestos containing materials (ACM) that would require compliance with California Department of Industrial Relations – Division of Occupational Safety and Health (Cal/OSHA) asbestos regulations and waste disposal. ACM is a manufactured construction material with an asbestos content that is greater than 1% by weight.
- To identify asbestos containing construction materials (ACCM) that would require compliance with Cal/OSHA asbestos regulations. ACCM is a manufactured construction material with asbestos content that is greater than 0.1% by weight.
- To identify primarily deteriorated lead-based paints (LBPs) that would need stabilization/removal before building demolition or renovation to comply with California Environmental Protection Agency (EPA) hazardous waste disposal regulations regulated by the California Department of Toxic Substances Control (DTSC). The handling of LBPs would also require compliance with Cal/OSHA lead regulations (8CCR1532.1). The evaluation of paints was not intended to be either a lead inspection or a lead hazard evaluation as defined by Title 17 CCR 35001 *et seq*. Lead-based paint inspections in public or residential buildings are subject to California Department of Public Health (CDPH) regulations.
- To identify lead-containing materials (LCMs) primarily in ceramic tiles that would need to be removed before demolition or renovation for compliance with Cal/OSHA and DTSC regulations. The evaluation was not intended to be either a lead inspection or a lead hazard evaluation as defined by California Department of Public Health (17CCR35001 et seq).

2.0 Summary of Investigation

2.1 Review of previous reports

Prior to this survey Acumen reviewed the previous sampling reports.

- *Survey for Asbestos Containing Materials at 1947 Center Street, Berkeley, California* (Galson Project S7-824), May 7, 1987, by Galson Technical Services, Inc.
- *Completion of Asbestos Related Work at 1947 Center Street, Berkeley, California* (Galson Project S7-365), March 28, 1988, by Galson Technical Services, Inc.
- *Asbestos Abatement Project Report Conducted at 1947 Center Street, Berkeley, California,* March 2005, by Protech Consulting and Engineering.
- *Limited Asbestos Survey for Facility Repairs: 1947 Center Street, Berkeley, CA* (Acumen Project No. COB 1503), July 2015 by Acumen Industrial Hygiene, Inc.
- *Limited Lead-Based Paint Testing For Construction*, By Acumen Industrial Hygiene, Inc. February 9, 2016
- *Limited Asbestos Containing Materials Testing for Building Repairs, 4th Floor Window, Corner Conference Room / Plaster Repairs* (Acumen Project No.: COB 1505A), February 18, 2016
- *Asbestos Containing Materials Inspection for Carpet Replacement Project, 1947 Center Street, 6th Floor, Berkeley, CA 94704,* (Acumen Project No. COB 2231), August 1, 2022, by Acumen Industrial Hygiene, Inc.
- *Asbestos Containing Materials Inspection for Window Replacement Project, 1947 Center Street, 6th Floor, Berkeley, CA 94704,* (Acumen Project No. COB 2231), August 14, 2024, by Acumen Industrial Hygiene, Inc.

A previous asbestos report from Galson Technical Services (Galson, 1987) indicated steam heating and domestic hot water thermal system insulation (TSI) contained asbestos. Plaster ceilings and vinyl floor tile were also reported to be ACM. Galson also discovered asbestos in roofing materials, but there was no mention in these reports regarding testing of exteriors. Materials that tested negative at that time included plaster walls, sheetrock, (drywall/taping mud), linoleum (vinyl sheet flooring) and ceiling tiles (splined and lay-in types).

Based on subsequent Galson letter reports (1988) asbestos was consequently abated from various areas in the building, but some asbestos was left in place, including plaster ceilings on the 3rd and 4th floors, vinyl floor tiles (throughout) and thermal insulation inside some pipe chases. Information was not provided regarding the 2003 remodel, however an asbestos project report indicated pipe insulation and vinyl floor tile were abated from the second floor in 2005 (Protech, 2005).

Acumen Industrial Hygiene, Inc. (Acumen) performed a survey in 2015 and discovered ACM is present in exterior paint and texture on concrete, in exterior window putty and in skylight putty. We also confirmed the presence of asbestos as 9x9" vinyl floor tiles and mastics under carpets and in mechanical closets of 1st, 2nd, 3rd and 4th floors. Asbestos was not detected in pipe chase debris, drywall/taping mud, plaster walls or exterior duct tape (2nd floor roof).

In 2022, samples collected on the 6th floor confirmed the presence of asbestos in 9x9-inch vinyl floor tiles and 12x12-inch orange vinyl floor tiles on the sixth floor.

2.2 Asbestos Survey Methods

The asbestos inspection consisted of a walkthrough of the Site to identify and sample suspect ACM. Acumen noted significant factors of the suspect ACM, including the friability of suspect materials. Friability describes the ability of a material to be crushed or crumbled, when dry, into a powder using hand pressure.

Where suspect ACMs were noted, bulk samples were collected and submitted with our chain of custody forms to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for asbestos. This laboratory also holds certification from the American Industrial Hygiene Association (AIHA). The asbestos laboratory results are shown in Appendix A.

Acumen collected eight (8) asbestos samples at the Site on February 27, 2025. The suspect asbestos samples collected were analyzed by polarized light microscopy (PLM). The asbestos laboratory reports are shown in Appendix A. This method identifies the type(s) of asbestos present in the sample and its corresponding percent concentration(s). The reliable limit of quantification of this method is 1% asbestos.

2.3 Lead-Containing Materials and Paint Survey Methods

The lead inspection consisted of a walkthrough of the Site to identify deteriorated surface coatings and suspect LCMs. Paints that were in deteriorated condition (peeling, chipping, powdering, etc.) were sampled, noting the location, color, substrate, and extent of deterioration. Intact paints were also sampled, for Cal/OSHA compliance purposes. Ceramic tiles were not sampled.

We collected three (3) discrete paint samples for lead analysis. The discrete paint samples were analyzed by flame atomic absorption (FLAA) spectrometry using Method 7420. The limit of quantification depends on the mass of the sample. Lead bulk materials (ceramic tiles) were not sampled during this investigation.

Lead paint samples were submitted to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the AIHA under the Environmental Lead Laboratory Accreditation Program (ELLAP) for selected lead analysis methods. When a result is noted to be less than (<) on the lead sample report, it should be interpreted as meaning below analytical detection limit. The lead laboratory results are also shown in Appendix A.

3.0 Narrative Summary of Findings

The objective of our services is to determine the presence of asbestos containing material (ACM) in areas planned for facility upgrades and renovations. We understand the building was constructed in the mid-20th Century (1947) but extensively remodeled in 1987 and 2003. The 4th floor was brought back to shell in 2016.

The six-story building was built slab-on grade with concrete perimeter wall (Photo 1). The interior finishes of the building consist of painted drywall and plaster wall. We tested drywall in the safe room on the first floor and found no asbestos or lead (below detection limit) in the samples. This result is limited to this safe room only. Drywall in other areas of the building should be tested to confirm that they do not contain asbestos if they are to be disturbed. Plaster wall did not get tested so we assume that it may contain asbestos. The flooring throughout the building consists of vinyl floor tiles, vinyl sheet flooring, carpet and ceramic tile, which we did not sample. The 9-inch brown vinyl floor tile, known to contain asbestos, is present throughout the building and may be beneath carpet and other flooring materials. Thermal system insulation (TSI) may be present on pipes within wall cavities and between concrete floors. In the basement, we observed deteriorated (loose and flaking) paints on the concrete perimeter wall and in the gas shut off closet. These paints were found to contain up to 3,600 parts per million (ppm) lead.

4.0 Detailed Findings and Discussion

4.1 Previous Findings and Discussion

Materials sampled and confirmed ACM on June 23, 2015:

- Exterior textured light orange paint on concrete
- Window putty: less than 1% to 2% chrysotile asbestos
- Skylight caulking: 5% to 6% chrysotile asbestos
- 9x9-inch vinyl floor tile and mastic: 3% to 15% chrysotile asbestos

Materials previously reported to contain asbestos (Galson, 1987):

- Pipe insulation (located in non-accessible locations such as pipe chases, risers and soffits
- Plaster ceilings (potentially above drop ceilings, basement, 3rd floor and 4th floor)
- Roofing materials.

4.2 Asbestos Findings and Discussion

The assumed (not sampled) asbestos containing materials are summarized in Table 1. Table 2 shows the sample results for those materials that did not contain detectable amounts of asbestos. The laboratory analytical results are included in Appendix A. Asbestos sample locations are illustrated on the Sample Location Maps provided in Appendix B. The diagrams indicate where the samples were taken, but locations of these materials are not limited to the areas sampled. Representative photographs of materials that have been identified are provided in Appendix C. Previous reports can be found in Appendix D

4.2.1 Friable Asbestos Containing Materials

During our investigation, we did not find friable asbestos containing material based on bulk samples collected at the building.

4.2.2 Non-Friable Asbestos Containing Materials

During our investigation, we did not find non-friable asbestos containing material based on bulk sample collected at the building.

4.2.3 Assumed Asbestos Material (Not Sample)

During our investigation, we identified and assumed friable and non-friable asbestos containing materials at the Site in areas where bulk samples were not collected. Assumed asbestos containing materials should be sampled prior to any disturbance to confirm the absence of asbestos. The material quantity is yet to be determined.

- Suspect roofing materials. These materials are considered Category I non-friable and require Cal/OSHA Class II abatement procedure if they were found to contain asbestos.
- Throughout: Drywall and taping mud. Taping mud is considered friable RACM and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos
- Throughout: Metal fire door core (Photo 2). This material is considered friable RACM and requires Cal/OSHA Class I abatement procedure if it was found to contain asbestos.
- Wall Cavities and between floors (throughout): Thermal system insulation. These materials are considered friable RACM and require Cal/OSHA Class I abatement procedure if they were found to contain asbestos.

- Throughout: Various ceiling tiles (Photo 3). These materials are considered friable RACM and require Cal/OSHA Class I abatement procedure if they were found to contain asbestos.
- Throughout: Various vinyl sheet floorings (Photo 4). These materials are considered friable RACM and require Cal/OSHA Class I abatement procedure if they were found to contain asbestos.
- Throughout: Various baseboard mastic. These materials are considered Category I non-friable and require Cal/OSHA Class II abatement procedure if they were found to contain asbestos.
- Throughout: Various under sink coatings (Photo 5). These materials are considered Category II non-friable and require Cal/OSHA Class II abatement procedure if they were found to contain asbestos.
- Throughout: Yellow carpet adhesive (Photo 6). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Throughout: Various ceramic tiles mortar and grout (Photo 7). These materials are considered Category II non-friable and require Cal/OSHA Class II abatement procedure if they were found to contain asbestos.
- Throughout: Light green paint on concrete ceiling (Photo 8). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Throughout: Terrazzo flooring (Photo 9). This material is considered Category II non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Throughout: Various vinyl floor tiles (Photo 10). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos
- Throughout: Black mastic under carpet (Photo 11). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Basement boiler room: Silver paint on boiler's support frame (Photo 12). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos.
- Basement boiler room: Pipe gasket (Photo 13). This material is considered Category I non-friable and requires Cal/OSHA Class II abatement procedure if it was found to contain asbestos

4.2.4 Regulated Asbestos Containing Materials

BAAD regulates air emissions from building demolition and renovation projects. This agency requires that materials with an asbestos content greater than 1% be removed before building demolition or renovation if they are either friable or the work will damage or otherwise render them friable.

If RACMs were to be disturbed, their removal would require 10-day advance notification to BAAD if more than 100 square feet or 100 linear feet are being removed. Even if less than 100 square feet or linear feet are removed, the BAAD has rules regarding the methods of removal.

Other materials such as flooring and mastics may also be considered RACM if the contractor uses mechanical methods to remove them. The roofing is not considered RACM and considered non-friable because these materials will remain intact during removal. The removal of these materials will need to be consistent with Cal/OSHA requirements for worker protection and the wastes will need to be segregated as Category I non-friable asbestos wastes.

4.2.5 Non-Asbestos Containing Materials

Refer to Table 2 for materials sampled that do not contain asbestos for the Site.

4.3 Detailed Lead Findings and Discussion

The result of this investigation determined that lead-containing paint is present at the Site. Intact lead paints do not require paint-stabilization. However, deteriorated (loose and flaking) lead paints must be stabilized prior to demolition or renovation. Where inspected, we observe flaking (deteriorated) paints at the Site. As shown on Table 3, we representatively sampled paints to comply with Cal/OSHA and DTSC waste disposal regulations during construction.

Paints that contain more than 5,000 ppm lead are considered “lead-based paint” and if deteriorated are considered a “lead-hazard” by the CDPH. In California, paint chip wastes or materials with lead concentrations exceeding 1,000 ppm are classified as hazardous wastes. Deteriorated paint wastes or materials that contain more than 50 ppm lead, but less than 1,000 ppm lead would need to be re-analyzed by the Soluble Threshold Limit Concentration (STLC) to determine soluble lead content and by the US EPA Total Concentration for Leachable Pollutants (TCLP) test to determine whether the paint or material is either a California or a Federal hazardous waste. If the soluble test(s) exceed 5.0 mg/L, then the waste would be characterized as “hazardous waste” (either California, federal or both). Ceramic tiles with lead content exceeding 50 ppm should be removed and tested for leachable lead using the STLC/TCLP methods before any demolition or renovation activities.

Construction work that disturbs lead-based or lead-containing materials (including demolition) will need to be conducted in accordance with Cal/OSHA's lead in construction regulations (8CCR1532.l). These regulations apply paints and materials that contain any detectable amounts of lead. In theory, this should not pose a significant problem as this regulation has been in effect since 1992. Lead containing materials may require separate disposal if they contain more than 50 ppm lead. This rule does not apply for intact paint.

Cal/OSHA's lead in construction standard (8CCR1532.1) requires a contractor whose work involves disturbing leaded materials to develop and implement a lead compliance plan. The written lead compliance plan would essentially acknowledge the presence of lead and would describe procedures to minimize airborne lead exposures (e.g., use of dust control, clean up debris daily with a HEPA vacuum, and use good personal hygiene procedures, etc.) consistent with either assumed or known airborne lead exposures. Additionally, if the paint is disturbed (e.g., sanding or chipping), contractor is required to conduct employee exposure assessment to determine appropriate protective measures, including medical surveillance and personal hygiene facilities, and to provide employee training on the hazards of lead related work. Note that lead related work in public buildings that exceeds Cal/OSHA's permissible exposure limit requires that the training be accredited lead worker training under the California Department of Public Health (CDPH).

4.3.1 Lead-Based Paint

During our investigation, we did not find lead-based paints (greater than 5,000 ppm) based on bulk samples collected at the building.

4.3.2 Lead-Containing Paint

During our investigation, we found lead-containing paint (less than 5,000 ppm) based on bulk samples collected at the building.

- White paint on concrete wall contains 3,600 ppm lead (sample COB2446-1947-PB01, Photo 14). There are approximately 75 square feet of this deteriorated (loose and flaking) paint present throughout the building, which will require paint stabilization and disposal as a hazardous waste.
- Green paint on drywall contains 2,700 ppm lead (sample COB2446-1947-PB02, Photo 15). There are approximately 50 square feet of this deteriorated (loose and flaking) paint present throughout the building, which will require paint stabilization and disposal as a hazardous waste

4.3.3 Non-Lead-Containing Paints

During our investigation, we found non-lead-containing paint (below detection limit) based on bulk samples collected at the building.

- White paint on drywall contains lead concentrations less than the detection limit (less than 50 pm). The paint is deteriorated but does not need stabilization.

5.0 Recommendations

5.1 ACMs/LCMs During Building Demolition or Renovations

1. Notify potential demolition or renovation contractors of the presence of deteriorated lead-containing paints. Disturbance of the lead paints requires compliance with Cal/OSHA's lead in construction regulation.
2. Conduct sampling of all assumed materials identified in this report for asbestos and/or lead to determine if removal is necessary before any disturbance.

6.0 Managing ACM/LBP in Place (For Portions to Remain)

1. If the building (of portions there-of) is not abated, the owner will need to notify building occupants and employees of the presence of asbestos, as required under California Health and Safety Code 25915.7-25919.7 (Connelly Bill) and by Cal/OSHA regulations. The materials have a low fiber release potential if they remain undisturbed. Notify contractor and maintenance employees of this report.
2. Prepare and implement an asbestos O&M program to manage ACMs that will remain in place. This asbestos O&M program should detail roles and responsibilities for managing ACM at the complex. The O&M program should establish written policies and procedures for asbestos safe work practices to minimize the potential for unauthorized disturbance of ACM, monitor the condition of ACM and respond to damage or deterioration of ACM, with the goal of preventing the release of airborne asbestos fibers. Implementation of the O&M program will require that facility employees receive annual asbestos training. The O&M program should remain in place as long as ACM remains in the buildings.
3. The California - Proposition 65 rules require posting a sign warming of potential hazards because of the presence of asbestos and lead.

7.0 Conclusions

Our investigation did not discover asbestos containing material based on bulk samples tested. Deteriorated lead-containing paints are present and would require paint stabilization. Work that disturbs asbestos and lead is regulated by Cal/OSHA and requires licensed contractors that specialize in abatement. We recommend a clearance inspection by an accredited CDPH inspector assessor or project monitor once the paints have been stabilized.

8.0 Limitations

Reasonable effort was made by Acumen personnel to locate, and sample suspect hazardous building materials. However, for any facility or building, the existence of unique or concealed ACM or lead-containing materials, other hazardous building materials and debris is a possibility. Acumen does not warrant, guarantee, or profess to have the ability to locate or identify all ACM or other hazardous materials at this facility. The intent of this report is for use in planning, for demolition or renovation purposes. All quantities of materials identified in this report should be field verified by contractors prior to submitting bids to perform abatement work. Additional confirmatory sampling and detailed quantification may be required if the renovation work uncovers additional suspect materials. The report is not intended as a CDPH or HUD defined “lead hazard evaluation” or “lead inspection”.

Acumen provided these services consistent with the level and skill ordinarily exercised by members of the profession currently providing similar services under similar circumstances at the time the services were provided. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the named client and their designees. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of certain other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user.

As with all such assessments, the results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times. Additionally, this assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of all conditions within the facility. The information presented in this report is intended to be used as a guide to evaluate the need for materials removal, further investigation or the need for modifications to the processes or procedures surveyed.

The client should recognize that all testing and remediation methods have reliability limitations, no method or number of sampling locations can guarantee that a condition will be discovered within the performance of the services as authorized by the client. Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during Acumen’s inspection of the site.

Table 1

Asbestos Containing Material
1947 Center Street
Berkeley, CA

February 28, 2025

Location	Material	Results[1]	BAAQMD[2]	EQ[3]	Sample No.
Throughout	Drywall and Taping Mud	Assumed (Not Sample)	RACM	TBD	N/A
Throughout	Metal Fire Door	Assumed (Not Sample)	RACM	TBD	N/A
Throughout – Wall Cavities and Between Floors	TSI	Assumed (Not Sample)	RACM	TBD	N/A
Throughout	Various Ceiling Tiles	Assumed (Not Sample)	RACM	TBD	N/A
Throughout	Various Vinyl Sheet Floorings	Assumed (Not Sample)	RACM	TBD	N/A
Throughout	Various Baseboard Mastics	Assumed (Not Sample)	Cat I NF	TBD	N/A
Throughout	Various Under Sink Coatings	Assumed (Not Sample)	Cat II NF	TBD	N/A
Throughout	Yellow Carpet Adhesive	Assumed (Not Sample)	Cat I NF	TBD	N/A
Throughout	Various Ceramic Tiles Mortar and Tiles	Assumed (Not Sample)	Cat II NF	TBD	N/A
Throughout	Light Green Paint on Concrete Ceiling	Assumed (Not Sample)	Cat I NF	TBD	N/A
Basement – Boiler Room	Silver Paint on Boiler's Support Frame	Assumed (Not Sample)	Cat I NF	TBD	N/A
Basement – Main Electrical	Pipe Gasket	Assumed (Not Sample)	Cat I NF	TBD	N/A
Throughout	Terrazzo Flooring	Assumed (Not Sample)	Cat II NF	TBD	N/A
Throughout	Various Vinyl Floor Tiles	Assumed (Not Sample)	Cat I NF	TBD	N/A

Table 1 (continued)

Asbestos Containing Material
1947 Center Street
Berkeley, CA

February 28, 2025

Location	Material	Results[1]	BAAQMD[2]	EQ[3]	Sample No.
Second Floor – Conference Room 251 and Throughout	Black Mastic under Carpet	Assumed (Not Sample)	Cat I NF	TBD	N/A
Roof	Roofing Materials	Assumed (Not Sample)	Cat I NF	TBD	N/A

Footnotes

1. Results report percent (%) asbestos as determined by polarized light microscopy (PLM). Samples that are marked Point Count were analyzed by EPA-600/R93-116 (1993) method as determined by PLM 400 Point Count method and are reported as percentage (%) asbestos. CH = Chrysotile asbestos; AC = Actinolite asbestos; TR = Tremolite asbestos; AM = Amosite asbestos; CR = Crocidolite; Trace = levels of asbestos is less than 1%; ND = no asbestos detected; and Assumed = material to contain asbestos unless proven otherwise.
2. BAAQMD indicates classification into friable as Regulated Asbestos Containing Material (RACM) or Category I (Cat I) or Category II (Cat II) Non-Friable. Depending on methods of removal Category I or II non-friable ACMs could become rendered into friable/RACM. BAAQMD classifications are non-applicable (N/A) for materials with results that are ND for asbestos.
3. EQ means estimated quantity either in square feet (SF), linear feet (LF), or each unit (EA). Estimated quantities are non-applicable (N/A) for materials with results that are ND for asbestos. Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. TBD = To Be Determined. NQ = Not Quantified. Assumed asbestos materials should be tested to prove otherwise.

Table 2

Non-Asbestos Containing Materials
1947 Center Street
Berkeley, CA

February 27, 2025

Location	Material	Results[1]	Sample No.
Basement - West Exit Corridor	White Paint on Concrete Wall	Paint: ND Compound: ND	COB2446-1947-01A
Basement - West Exit Corridor	White Paint on Concrete Wall	ND	COB2446-1947-01B
First Floor - Safe Room	Drywall with Taping Mud	Drywall: ND Taping Mud: ND Tape/Paint: ND	COB2446-1947-02A
First Floor - Safe Room	Drywall with Taping Mud	Drywall: ND Taping Mud: ND Paint: ND	COB2446-1947-02B
Basement - Gas Shut Off Closet	Green Paint on Drywall	Paint: ND Compound: ND	COB2446-1947-03A
Basement - Gas Shut Off Closet	Green Paint on Drywall	Paint: ND Compound: ND	COB2446-1947-03B
Penthouse - Electrical Room	Beige with Red Splotches	Flooring: ND Backing: ND Mastic: ND	COB2446-1947-04A
Penthouse - Electrical Room	Beige with Red Splotches	Flooring: ND Backing: ND Mastic: ND	COB2446-1947-04B

Footnote

1. Samples were analyzed by polarized light microscopy (PLM) and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

Table 2

Summary of Lead Paint Sample Results
1947 Center Street
Berkeley, CA

February 27, 2025

Location	Material	Result[1]	Condition[2]	EQ[3]	Sample No.
Basement - West Exit Corridor	White Paint on Concrete Wall	3,600	Deteriorated	75 SF	COB2446-1947-PB01
Basement - Gas Shut Off Closet	Green Paint on Drywall	2,700	Deteriorated	50 SF	COB2446-1947-PB02
Basement - Safe Room	White Paint on Drywall	< 50	Deteriorated	N/A	COB2446-1947-PB03

Footnote

1. Samples are analyzed by Flame Atomic Absorption Spectrometry (AAS). U.S. EPA SW-846 Method 7420 is used for the instrumental analysis. Nitric acid and hydrogen peroxide digestion procedures are based on U.S. EPA SW-846, 3rd edition. Results reported in milligram per kilogram (mg/kg) or parts per million (ppm). The "<" sign means below analytical detection limit.
2. Intact paint requires no lead-stabilization; deteriorated paint with greater than 50 ppm lead must be stabilized prior to demolition or renovation.
3. EQ means estimated quantity in square feet (SF). Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. N/A = Lead-stabilization is not required.

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

Appendix A

Laboratory Reports

1947 Center Street
Berkeley, CA

April 2025

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB 2446
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**326668**
Total Samples	8
Date Sampled	02/27/2025
Date Received	02/28/2025
Date Analyzed	03/03/2025

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB2446-1947-01A Micro #: 326668-01 Analyst: KG BASEMENT - WEST EXIST CORRIDOR WHITE PAINT ON CONCRETE WAY	PAINT: ND COMPOUND: ND	NFM: OPAQUES MISCELLANEOUS PARTICLES
Client #: COB2446-1947-01B Micro #: 326668-02 Analyst: KG BASEMENT - WEST EXIST CORRIDOR WHITE PAINT ON CONCRETE WAY	ND	NFM: OPAQUES MISCELLANEOUS PARTICLES
Client #: COB2446-1947-02A Micro #: 326668-03 Analyst: KG 1 - SAFE ROOM DRYWALL W/ TAPING MUD	DRYWALL: ND TAPING MUD: ND TAPE / PAINT: ND	15 % CELLULOSE NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: COB2446-1947-02B Micro #: 326668-04 Analyst: KG 1 - SAFE ROOM DRYWALL W/ TAPING MUD	DRYWALL: ND TAPING MUD: ND PAINT: ND	10 % CELLULOSE 2 % FIBROUS GLASS NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: COB2446-1947-03A Micro #: 326668-05 Analyst: KG BK BASEMENT - GAS SHUT OFF CLOSET GREEN PAINT ON DRYWALL	PAINT: ND COMPOUND: ND	NFM: OPAQUES MISCELLANEOUS PARTICLES

Technical Supervisor: _____ 3/3/2025
Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB 2446
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**326668**
Total Samples	8
Date Sampled	02/27/2025
Date Received	02/28/2025
Date Analyzed	03/03/2025

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB2446-1947-03B Micro #: 326668-06 Analyst: KG BASEMENT - GAS SHUT OFF CLOSET GREEN PAINT ON DRYWALL	PAINT: ND COMPOUND: ND	NFM: OPAQUES MISCELLANEOUS PARTICLES
Client #: COB2446-1947-04A Micro #: 326668-07 Analyst: KG PENTHOUSE - ELECTRICAL ROOM BEIGE W/ RED SPLOTCHES	FLOORING: ND BACKING: ND MASTIC: ND	60 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: COB2446-1947-04B Micro #: 326668-08 Analyst: KG PENTHOUSE - ELECTRICAL ROOM BEIGE W/ RED SPLOTCHES	FLOORING: ND BACKING: ND MASTIC: ND	60 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.

Technical Supervisor: 

Baojia Ke, Ph.D. 3/3/2025
Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

326668
(plm)

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

Project No. COB 2446

Location: 1947 Center Street
Address: Berkeley, CA
Sampling Date: 2/27/2025

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
1	COB2446-1947-01A	Basement	West Exist Corridor	white paint on concrete wall	PLM Asbestos
2	-01B				
3	-02A	1	Safe Room	Drywall w/ taping Mud	
4	-02B	1			
5	-03A	Basement	gas shut off closet	green paint on drywall	
6	-03B				
7	-04A	Penthouse	Electrical Room	Beige w/ Red Splotches	
8	-04B	Penthouse			
	-Pb01	Basement	West Exist Corridor	white paint on concrete wall	PLM LEAD
	-Pb02		gas shut off closet	green paint on drywall	
	-Pb03	1	Safe Room	white paint on drywall	

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 2/28/2025	Date Received: 2/28/25 15:28

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other: _____

☐ NT ☐ WTE

MICRO ANALYTICAL LABORATORIES, INC.

LEAD IN PAINT - FLAME AAS (SW846)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB 2446
1947 CENTER STREET
BERKELEY, CA

Micro Log In 326669
Total Samples 3
Date Sampled 02/27/2025
Date Received 02/28/2025
Date Analyzed 03/01/2025

Sample ID	Lead Concentration Weight Percent	mg/kg (ppm)	RDL
Client: COB2446-1947-PB01 Lab: 326669-01 BASEMENT - WEST EXIST CORRIDOR WHITE PAINT ON CONCRETE WALL	0.36 %	3600	0.0280 % 280 mg/kg
Client: COB2446-1947-PB02 Lab: 326669-02 BASEMENT - GAS SHUT OFF CLOSET GREEN PAINT ON DRYWALL	0.27 %	2700	0.0270 % 270 mg/kg
Client: COB2446-1947-PB03 Lab: 326669-03 BASEMENT - SAFE ROOM WHITE PAINT ON DRYWALL	< 0.0050 %	< 50	0.0050 % 50 mg/kg

Technical Supervisor: _____ 3/1/2025 Analyst: TLN
Long T. Nguyen, Chemistry Supervisor Date Reported

AIHA-LAP, LLC Accredited Laboratory, ID #101768. Samples are analyzed by Flame Atomic Absorption Spectrometry (FLAAS) using SOP 23-Paint. This SOP is based on U.S. EPA SW-846 Method 7420 for instrumental analysis, and on ASTM E-1645-21 for nitric acid and hydrogen peroxide digestion. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. If the amount of sample available for analysis is lower than advisable for this method, detection limits and uncertainty will be higher. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. N/A = Not Applicable. RDL = Report Detection Limit.

326669
(paint)

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

Project No. COB 2446

Location: 1947 Center Street
Address: Berkeley, CA
Sampling Date: 2/27/2025

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

Sample No.	Floor	Location	Description	Method
COB2446-1947-01A	Basement	West Exist corridor	white paint on concrete wall	PCM Asbestos
-01B				
-02A	1	Safe Room	Drywall w/ taping mud	
-02B	1			
-03A	Basement	gas shut off closet	green paint on drywall	
-03B				
-04A	Penthouse	Electrical Room	Beige w/ Red splotches	
-04B	Penthouse			
1 -P501	Basement	West Exist corridor	white paint on concrete wall	PLM LEAD
2 -P502		gas shut off closet	green paint on drywall	
3 -P503	1	Safe Room	white paint on drywall	

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 2/28/2025	Date Received: 2/28/25 15:28

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other:_____

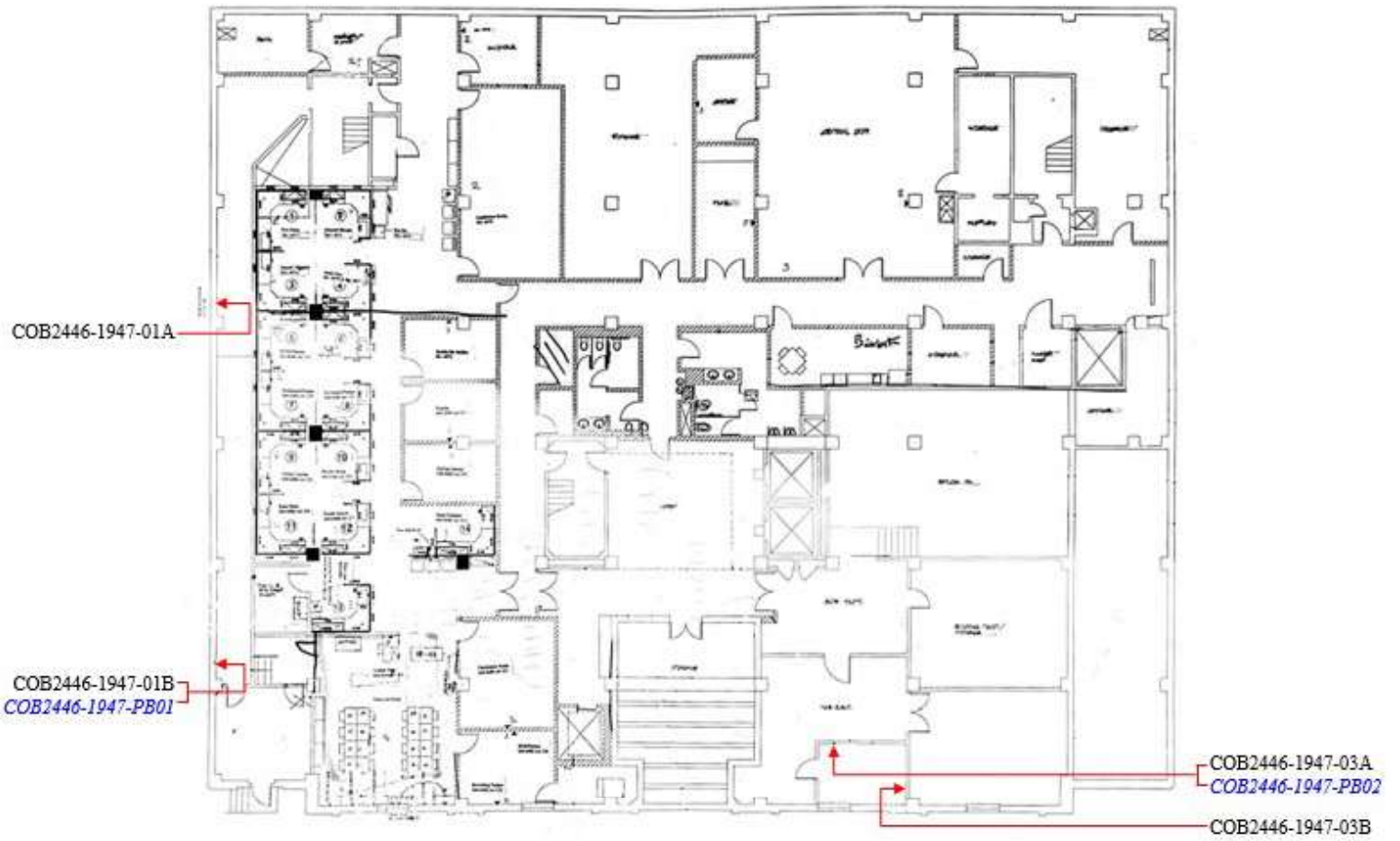
ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

Appendix B

Sample Location Floor Plans

1947 Center Street
Berkeley, CA

April 2025



ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922

SAN FRANCISCO CA 94122

415 242 6060

WWW.ACUMEN-IH.COM

Project

Public Works Building

1947 Center Street

Berkeley, CA

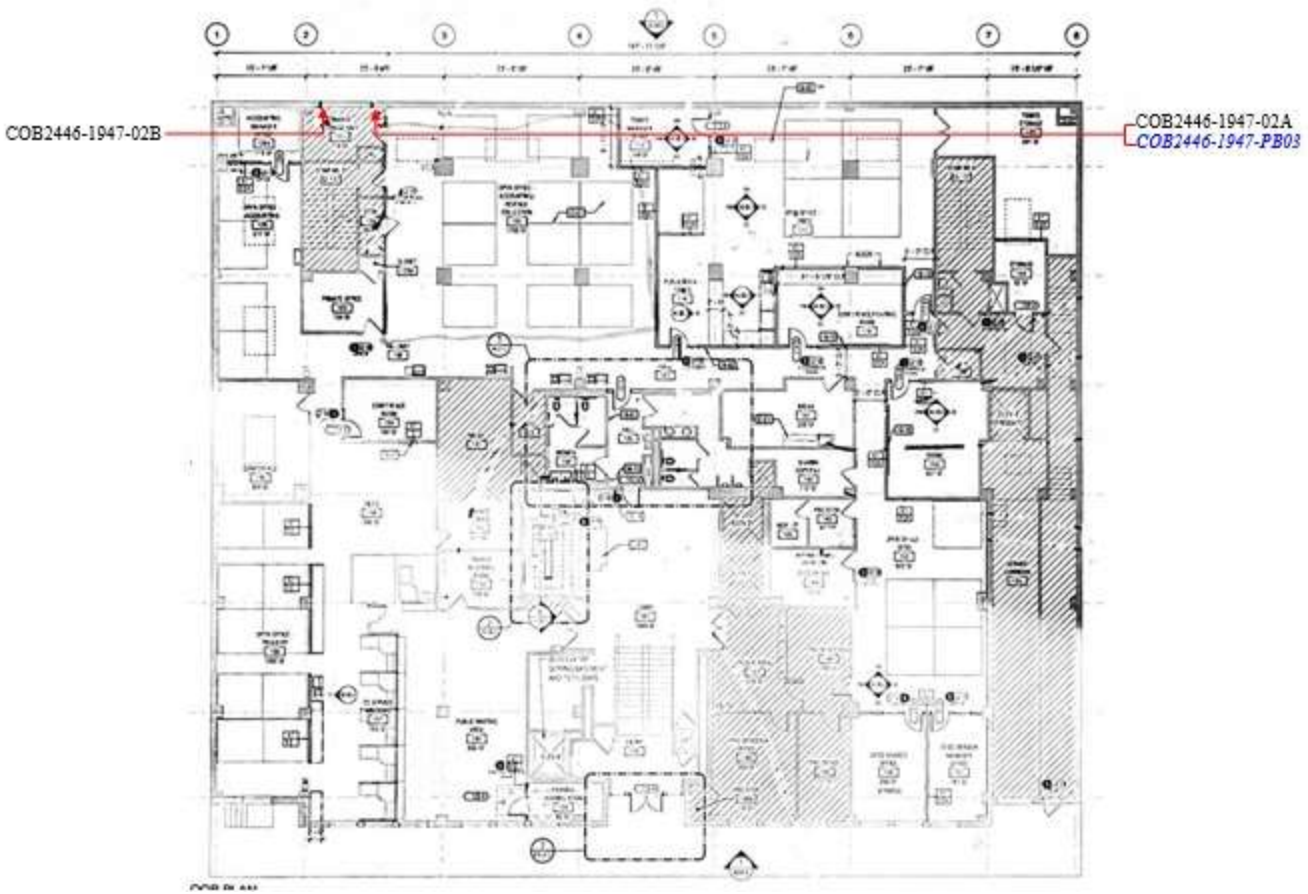
Project No.	Date
COB 2446	02/28/25

Location

-

Level

Basement



Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing Material
Blue Lead Sample
* Floor plan is not to scale.

N

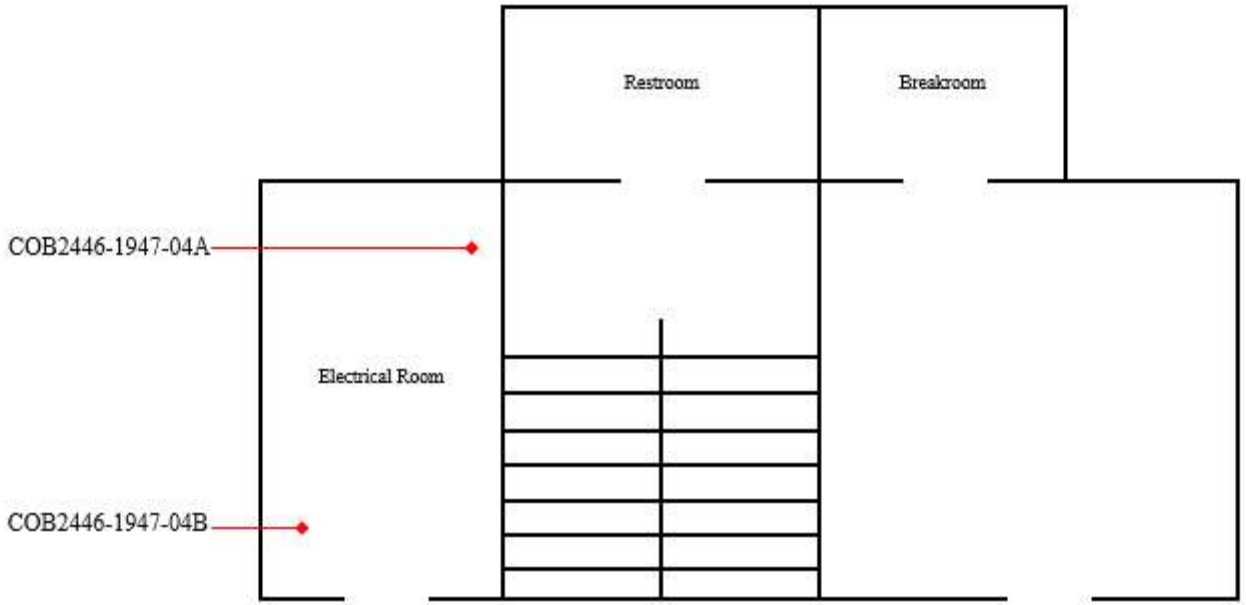
ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922
SAN FRANCISCO CA 94122
415 242 6060
WWW.ACUMEN-IH.COM

Project
Public Works Building
1947 Center Street
Berkeley, CA

Project No.	Date
COB 2446	02/28/25

Location
-

Level
First Floor



Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing Material
Blue Lead Sample
* Floor plan is not to scale.

N

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922
SAN FRANCISCO CA 94122
415 242 6060
WWW.ACUMEN-IH.COM

Project
Public Works Building
1947 Center Street
Berkeley, CA

Project No.	Date
COB 2446	02/28/25

Location
-

Level
Penthouse

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

Appendix C

Photographs

1947 Center Street
Berkeley, CA

April 2025

Photo 1
Public Works building located at 1947 Center Street, Berkeley, CA.

Photo 2
Basement stair 3: Metal fire door core.

Photo 3
Second floor hallway: Ceiling tile.

Photo 4
Basement hallway: Vinyl sheet flooring and baseboard mastic.

Photo 5
Basement multipurpose room: Under sink coating.

Photo 6
Basement lounge: Yellow carpet adhesive.

Photo 7
Basement restroom: Ceramic tiles mortar and grout.

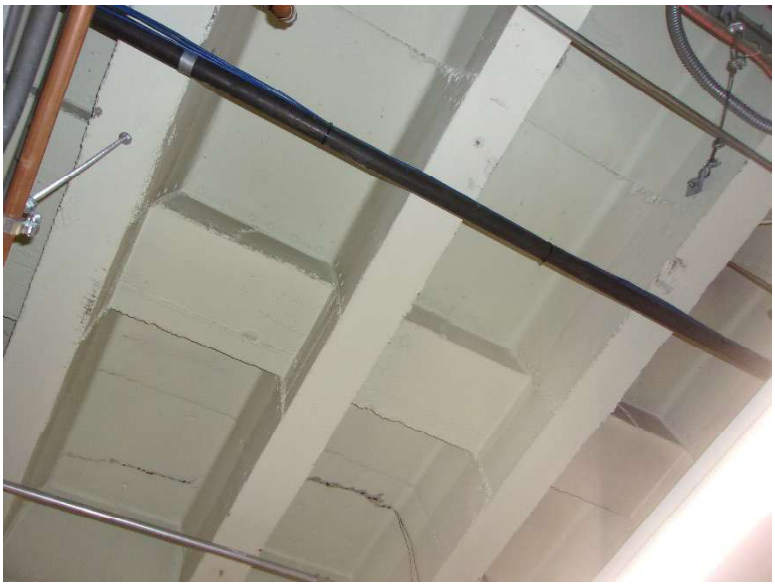


Photo 8
Basement storage: Light green paint on concrete ceiling.

Photo 9
Second floor elevator lobby: Terrazzo flooring.

Photo 10
Second floor breakroom: Vinyl floor tile.

Photo 11
Second floor Balsam conference room: Black mastic under carpet.

Photo 12
Basement boiler room: Silver paint on boiler's support frame.

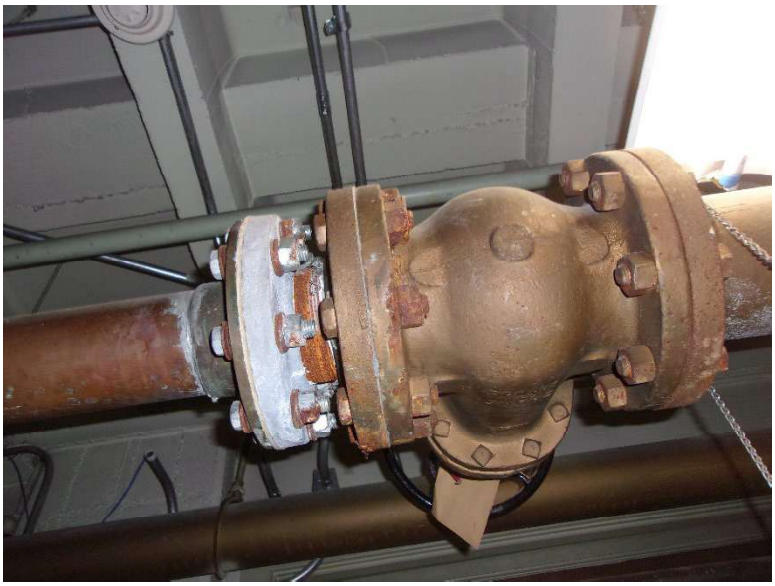


Photo 13
Basement main electrical room: Pipe gasket.

Photo 14
Basement west exit corridor: White paint on concrete wall contains 3,600 ppm lead. It does not contain asbestos.

Photo 15

Basement gas shut off closet: Green paint on concrete wall contains 2,700 ppm lead. It does not contain asbestos.

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

Appendix D

Previous Reports

1947 Center Street
Berkeley, CA

April 2025

SURVEY FOR ASBESTOS CONTAINING MATERIALS AT 1947 CENTER STREET BERKELEY, CALIFORNIA

GALSON PROJECT NO. S7-365

MAY 7, 1987

PREPARED BY:

Gerald J. Bartkus

GERALD J. BARTKUS, PE
PROJECT CONSULTANT

APPROVED BY:

Philip J. Nute FOR CHUCK SIU

CHUCK C. SIU, CIH
BRANCH MANAGER

GALSON TECHNICAL SERVICES, INC.
77 8 ST., SUITE 205
OAKLAND, CA 94607

ABSTRACT

This report summarizes the results and observations of a survey for asbestos containing materials in the building at 1947 Center Street, Berkeley, California. The purpose of the survey is to identify asbestos containing materials in the building and roof, so that proper provisions may be made to handle them during any future renovations.

Many systems examined did contain asbestos containing materials(ACM). Insulation on the steam heating and domestic hot water systems contains the largest percentage of asbestos found. The plaster ceiling and vinyl floor tile in the basement, 1st, 2nd, 3rd, 4th, 5th and 6th floors contained asbestos containing materials(ACM). Four of the twelve roofing layers tested positive for ACM. Asbestos was not detected in the plaster and sheetrock walls, the splined and laid-in ceiling tiles, or the linoleum.

FINAL REPORT:
1947 CENTER STREET BUILDING
ASBESTOS REMOVAL PROJECT
1947 CENTER STREET
BERKELEY, CALIFORNIA

GALSON JOB NO. S7-824

PROJECT DURATION
AUGUST 25, 1987 TO DECEMBER 11, 1987

REPORT PREPARED:
FEBRUARY 8, 1988

REPORT PREPARED FOR:
1947 CENTER STREET ASSOCIATES

PREPARED BY:

COLIN S. BROWNLOW
SENIOR INDUSTRIAL HYGIENIST

APPROVED BY:

CHUCK C. SIU, CIH
BRANCH MANAGER

GALSON TECHNICAL SERVICES, INC.
2116 BERKELEY WAY
BERKELEY, CA 94704

1.0 INTRODUCTION

The 1947 Center Street building is a six story office building located at 1947 Center Street, Berkeley, California. The building was built in 1947, and served as the Berkeley offices of State Farm Insurance Co. In recent years the building served as a multi-tenant office space, with the Educational Testing Service (ETS) as the principal tenant. ETS vacated the building in the fall of 1987. The building owners, 1947 Center Street Associates, took the opportunity of the vacant floors to carry out extensive renovations in the building.

Galson Technical Services, Inc. was originally retained to carry out a survey of the building for the presence of asbestos containing materials. The results of that survey (GTS project # S7-365) were sent to the property managers (Gerson Bakar & Associates) in a report entitled Survey for Asbestos Containing Materials At 1947 Center Street, on May 7, 1987. The report states that the insulation on the steam heating and domestic hot water systems contained asbestos. The plaster ceilings and vinyl floors in the basement, 1st, 2nd, 3rd, 4th, 5th, and 6th floors contained asbestos. Four of the twelve roofing layers tested, contained asbestos. Asbestos was not detected in any other building systems.

Galson was asked to prepare the specifications for removal and disposal of asbestos containing materials in the building (GTS Project S7-647). The specifications and addendum to those specifications are contained in Appendix A of this report. Under the scope of work contained in the project specifications and the addendum, the asbestos abatement contractor was responsible for:

- Removal of insulation from steam heating, heating hot water and domestic hot water pipes in the basement mechanical room.
- Removal of insulation from fittings on steam heating, heating hot water and domestic water lines in the basement mechanical room.

- Removal of insulation from vessels in the basement mechanical room, including the domestic hot water tank.
- Removal of insulation from the boilers in the basement mechanical room.
- Removal of insulation from the breeching in the basement mechanical room.
- Removal of asbestos containing plaster ceilings from the basement elevator lobby and the 1st, 2nd, 5th and 6th floors.

The scope of work was selected to tie in with the proposed renovation of the building which included reinsulation of the equipment in the basement mechanical room, renovation and installation of new mechanical systems on the 1st, 2nd, 5th and 6th floors. The 3rd and 4th floors were to remain occupied and were not scheduled for renovation. Prior to the start of the project, the decision was made to exclude removal of the plaster ceiling in the basement elevator lobby from the scope of work.

Apersey Construction was selected as the general contractor for the renovation project. As its asbestos abatement subcontractor, Apersey selected Strategic Organizational Systems, International, Inc. (SOS).

Galson was retained to provide environmental quality assurance and quality control services during the project. Galson reported directly to the building owner throughout the project. Galson's scope of work included the following:

- Inspection and approval of work area preparation to ensure that cross contamination of the clean areas did not occur.

- During the abatement project, collection of air samples daily (Monday through Friday) outside the barricaded work area. One set of samples was to be collected daily covering the work period from 7:30 AM to 4:30 PM. There were two purposes for the air samples: first, to monitor and detect cross-contamination and second, to document the quality of air in the clean areas. Sampling locations were to be selected to reflect:

    a. Worst case conditions - immediately outside the isolation barriers.

Several instances of horseplay were observed during the project. Of particular concern were the workers' activities when bagging out asbestos containing materials. SOS workers were observed racing in the basement hallway with hand carts full of asbestos bags. On occasion this occurred between 3:30 and 5:00 pm when the building tenants' personnel were exiting the building via the basement. Both Galson and Apersey asked SOS to supervise their bag out crews more closely. Invariably the problem would clear up for a few days, and then reappear.

7.0 PROJECT DELAYS

Several delays occurred during the project. These delays fell into two broad categories, delays due to additional scope of work and delays on the part of the contractor.

7.1 DELAYS DUE TO ADDITIONAL SCOPE OF WORK

During the asbestos abatement project several items were added to the contractors scope of work. These included:

- removal of the plaster ceiling in the 1st Floor lobby,
- removal of asbestos containing insulation on steam piping in the basement,
- removal of steam pipe insulation above the plaster ceilings on the 1st, 2nd, 5th and 6th floors,
- removal of steam riser insulation and hot water pipe insulation exposed during demolition of the bathrooms in the core area of each floor, and
- removal and disposal of PCB containing fluorescent lamp ballasts from fluorescent light fixtures on the 1st, 2nd, 5th and 6th floors.

These items significantly added to SOS's scope of work and increased the cost of the asbestos abatement project. Apart from the additional cost and time delay incurred in the removal and disposal of the PCB lamp ballasts, Galson feels that the delays due to additional scope of work arose as a result of a poorly defined scope of work, and lack of coordination between the architect, general contractor, building owner and Galson prior to the start of the project.

Wilson
Technical Services, Inc.
2116 Berkeley Way
Berkeley, CA 94704
Tel: (415) 848-0389
Fax: (415) 848-0838

Environmental Sciences
Division

March 28, 1988

Ms. Judy Greif
Project Manager
Gerson Bakar & Associates
201 Filbert Street
San Francisco, CA 94133-3298

Re: Completion of Asbestos Related Work
1947 Center Street, Berkeley, CA
GTS Project No. S7-824

Dear Ms. Greif:

All asbestos-related work at the 1947 Center Street building, in Berkeley, has now been completed. This work included:

- the removal of the asbestos containing; plaster ceilings on the 1st, 2nd, 5th, and 6th floors;
- the removal of all asbestos containing thermal insulation in the basement mechanical room;
- the removal of all exposed asbestos containing pipe insulation in the basement, in the building's stairwells and on the roof of the 1st floor annex;
- the removal of all asbestos containing pipe insulation exposed by the demolition of the plaster ceilings and by the demolition of the washroom walls, on the 1st, 2nd, 5th and 6th floors;
- the sealing of all identified wall and ceiling penetrations which might still have asbestos containing pipe insulation, with spray-foam.

The first four items were completed by mid-December, 1987. The sealing of the ceiling and wall penetrations was completed in February, 1988.

Galson Technical Services, Inc. performed the final visual inspections and final clearance air monitoring for the asbestos abatement work in the 1st, 2nd, 5th, and 6th floors, as well as the basement mechanical room. The clearance air samples were collected using aggressive sampling techniques; the clearance samples were analyzed using transmission electron microscopy (Yamate, 1984). All areas were in compliance with the clearance standard contained in the project specification. A summary of the TEM results is given in the attached Table 1.

Galson understands that several questions have been raised regarding the decision to leave the plaster ceilings in place on the 3rd and 4th floors, and to leave the asbestos containing pipe lagging on the steam lines in the perimeter pipe chases. It may be of use therefore in discussing the rationale behind the decision to remove certain materials in the building and to leave others.

Although the plaster ceilings contained 10% chrysotile asbestos, the plaster material itself was non-friable and so would not release asbestos fibers unless the material was mechanically abraded. On most of the floors the plaster ceilings were contained behind suspended ceiling tile (this was the case on both the 3rd and 4th floors). The space between the suspended ceiling tile and the plaster ceilings was not a return air plenum. Galson also carried out air sampling on all floors of the building prior to any demolition, or asbestos related work. Analysis of the air samples showed the asbestos fiber concentrations on all floors to be less than 0.003 fibers/cc (the limit of detection of the analytical method). Based upon the above considerations, Galson felt that so long as the plaster ceilings were not damaged or mechanically abraded, they would not present any threat to the health of the building occupants or the environment.

Since the proposed renovation work on the 1st, 2nd, 5th and 6th floors of the building would involve demolition and removal of substantial amounts of the plaster ceiling on these floors, Galson advised Center Street Associates, that this work would likely result in the release of asbestos fiber, and that such work would have to be done under asbestos containment procedures. The building owners decided therefore to use this opportunity to remove the asbestos containing plaster ceilings on the floors scheduled for renovation.

Since no renovation work was planned for the 3rd and 4th floors, and since these floor were both occupied by long-term tenants the decision was made not to remove the plaster from these floors. If the plaster were to have been removed from these two floors, it would have involved the relocation of the tenants for about a month, with the accompanying inconvenience to the tenants and likely loss of revenue to the building owner. This inconvenience, the costs of relocation and loss of revenue would not have been offset by any improvement in the environmental conditions on either of the floors.

In regards to decision to defer removal of the asbestos containing plaster on the 3rd and 4th floors, it should be noted that it is a common strategy on the part of building owners to defer removal of asbestos containing materials on individual floors within a building until such time as those floors are being renovated. Providing those materials pose no threat to health (as was the case at 1947 Center Street) this is a strategy which Galson would support, and one which is recognized and endorsed by the Environmental Protection Agency.

The decision to remove the asbestos containing thermal insulation from the basement mechanical room, from exposed piping in the basement and from piping exposed by other demolition was based mainly upon the desire of the building owner to protect the tradesmen carrying out the renovations, and the owners' maintenance personnel from possible exposure to asbestos containing materials during repair work. Although thermal insulation is generally encased in painted canvas, the canvas can be torn. The thermal insulation itself usually has a very high asbestos content and is extremely friable. Since the planned renovations could easily damage any of the exposed thermal insulation the decision was made to have that material removed prior to the renovations.

It should be noted that some asbestos containing thermal insulation within sealed pipe chases remains in the building. Removal of the insulation within the pipe chases would require extensive demolition of walls on all floors of the building (including the occupied 3rd and 4th floors). Since the pipe chases are inaccessible from the occupied areas of the building the decision was made to leave the materials in place. Should extensive wall renovations be planned then the insulation could be removed at that time.

Galson trusts this discussion will help in clarifying the decision to leave some asbestos containing materials in place within the building. If Galson can be of any further assistance, or if you should have any further questions, please do not hesitate to contact Colin Brownlow at this office.

Sincerely;
GALSON TECHNICAL SERVICES, INC.

Colin S. Brownlow
Senior Industrial Hygienist

Rev:

Disk: S7-824, work completion

ProTech
Consulting & Engineering

1755 E. Bayshore Road, Suite 14B, Redwood City, CA 94063
(650) 569-4020 Fax (650) 569-4023

Date: March 22, 2005
Report #: 214-AG05
Cal/OSHA Certified Asbestos Consultant: Glen Koutz

ASBESTOS ABATEMENT PROJECT REPORT

CONDUCTED AT:

1947 Center Street, 2nd Floor
Berkeley, California

PREPARED FOR:

City of Berkeley
1947 Center Street
City, CA 94704

ASBESTOS ABATEMENT CONTRACTOR:

Asbestos Management Group
3438 Helen Street
Oakland, California

PREPARED BY:
PROTECH CONSULTING AND ENGINEERING
March 2005

g. Install primary barriers on all walls and floors inside of the abatement work area.
h. Install 3 stage decontamination shower unit.
i. Install magnehelic gage with continuous disc chart recorder

3. Asbestos Abatement Activities

a. Maintain negative pressure inside of the asbestos abatement work areas for eight hours prior to any ACM removal.
b. Wet removal all ACM as specified. Where necessary, remove and dispose of non-ACM building components, finishes, fixtures, etc. that are scheduled for demolition to access all ACM/ACCM.
c. Detail clean all barriers and work area surfaces.
d. Following final inspection of the work area, perform encapsulation of all work areas surfaces.
e. Following visual and final clearance, remove all barriers and check for any residual ACM debris.
f. Demobilize from site.
g. Submit all project close-out submittal documents.

4. Asbestos Abatement Scope of Work

a. The work specified herein includes the removal of various ACM at the subject site.
b. The Contractor shall perform selective wet remove and dispose of asbestos-containing building materials that may potentially be impacted during planned renovation work. The locations and extent of removal shall be limited to specific areas on the second floor as indicated on the attached Second Floor Finish Plan and Second Floor Demolition Plan plans and/or as laid-out in the field.
c. The following asbestos-containing materials are known to exist in areas of the second that will be impacted by planned renovation work:

Suspect Asbestos Material Description	Asbestos Content (%)
Brown 9 x 9" vinyl floor tile and mastic - under carpet throughout the second floor.	10% Chrysotile
Residual pipe insulation and associated debris – at column of room 255	7% Chrysotile 5% Amosite
Black mastic under white with black flecks 12 x 12" vinyl floor tile - phone room 241 over brown 9 x 9" floor tile	5% Chrysotile
Quantity of ACM to be Removed	
All ACM potentially affected (impacted, damaged or disturbed) by planned demolition and/or replacement of new building components (walls) shall be removed. Approximately 170 linear feet of wall removal and/or construction is planned (see attached site plans). The general contractor shall assess the amount of ACM that is required to be removed so that general trades work can be safely conducted and completed without contacting, impacting or otherwise damaging the remaining ACM. At a minimum, ACM removal shall include the dimensional wide of all wall demolition/replacement locations plus a minimum of one whole tile width on each side of sections to be demolished/replaced. No partial, broken or damaged floor tile shall remain. No exposed ACM mastic shall remain.	

d. The above scope-of-work is the result of a limited pre-renovation asbestos inspections performed by ProTech. Due to the limitation of the pre-renovation inspection, it is unlikely that this specification accounts for the

Prepared For:

1947 Center Street Associates
Ms. Jodi Aurely
201 Filbert Street
San Francisco, California 94133-3298

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Commercial Building
1947 Center Street
Berkeley, California 94704
ATC Project No. 17256.0017

Prepared by:

ATC Associates Inc.
6666 Owens Drive
Pleasanton, California 94588
(925) 460-5300 Fax (925) 463-2559

June 17, 1999

the basement and ground levels of the building. According to Ms. Hela, the freight elevator is a hydraulic elevator. The hydraulic oil is housed in an oil reservoir adjacent to the elevator, and also in the pumping unit, jack, and the to and from delivery line. According to Ms. Hela, the hydraulic oil does not contain PCBs.

ATC reviewed a *Preliminary Environmental Assessment at 1947 Center Street – Berkeley, California* dated June 28, 1989, prepared by Clayton Environmental Consultants, Inc. (Clayton). At the time of the Clayton site inspection, the elevators at the Site were serviced by Vertrans. Vertrans stated that the passenger elevators were operated by cables and the freight elevator was operated by non-PCB containing AW32 hydraulic oil. In addition, according to Clayton, the elevators were manufactured by Otis, a major elevator manufacturer that was confirmed to have never used hydraulic oils (Clayton, 1989).

Based on the fact that the hydraulic oil used for the freight elevator does not contain PCBs, the freight elevator is not considered to represent an environmental concern to the Site.

ATC observed one concrete vault electrical transformer number T-6038, which is owned and operated by PG&E. According to Clayton, all of the transformers in the city of Berkeley have been replaced or refilled with a non-PCB containing dielectric fluid (Clayton, 1989). Therefore, the transformer is not considered to represent an environmental concern to the Site.

2.4 ASBESTOS-CONTAINING MATERIALS (ACMs)

ATC visually inspected the facility for the presence of suspect ACMs. ATC reviewed the report entitled *Survey for Asbestos Containing Materials at 1947 Center Street – Berkeley, California* prepared by Galson Technical Services, Inc. (Galson), dated May 7, 1987. Galson collected bulk asbestos samples from the building and determined that numerous materials throughout the building contained asbestos (Refer to Section 2.7). Subsequent abatement projects in 1987 and 1988 removed a great deal of the asbestos from the building (Refer to Section 2.7). According to Ms. Jodi Aurely of CSA, floors 1, 2, 5, and 6 were renovated in 1988 and 1989; floors 3 and 4 have had cosmetic upgrades but have not been completely renovated. According to the asbestos abatement reports completed by Galson in 1987 and 1988, asbestos containing insulation in the basement mechanical room has been removed, as well as plaster ceilings from the basement elevator lobby and the first, second, fifth, and sixth floors. ATC observed 9" x 9" vinyl floor tiles in storage rooms in the basement, and according to Galson, asbestos containing plaster remains above the ceiling on the third and fourth floors. Due to the fact that abatement reports discussed in Section 2.7 did not address the third and fourth floors, it is likely that asbestos containing materials remain on these floors. Prior to performing demolition or renovation of these floors, asbestos surveys should be performed.

ACMs not previously identified in the buildings may be present in walls and other concealed places. U.S. Environmental Protection Agency (USEPA) regulations require performing asbestos surveys prior to renovation or demolition.

2.5 UTILITIES

According to the EBMUD *Water Quality and Supply Report – Spring 1999,* potable water in the City of Berkeley is supplied by Sierra Nevada snow melt transported by the Mokelumne Aqueducts from the Pardee Reservoir. Groundwater is not utilized as a source of potable water in the City of Berkeley.

PG&E provides electricity and natural gas to the Site. Sanitary sewer service [redacted] led by the City of Berkeley.

2.6 WASTE MANAGEMENT AND CHEMICAL HANDLING

No solid waste or other storage container sites were observed during the site visit.

According to Ms. Aurely, there is a janitorial service that collects office waste and recycling from the tenant spaces daily. Small quantities of general janitorial cleaning and maintenance supplies in original containers are stored in the janitorial closet located on the basement level of the building.

2.7 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Survey for Asbestos Containing Materials at 1947 Center Street – Berkeley, California

ATC reviewed the *Survey for Asbestos Containing Materials at 1947 Center Street – Berkeley, California* prepared by Galson, dated May 7, 1987. Galson collected a total of forty-eight bulk asbestos samples from the building. As a result of the survey, the following materials were determined to be ACMs: boiler and breeching insulation jackets in the basement mechanical room; steam pipe lagging in the basement and pipe chases throughout the building; insulation jacket for the steam heat exchanger in the basement mechanical room; insulation on the domestic hot water tank, piping, and fittings in the basement mechanical room; plaster ceilings throughout the building; 9" x 9" brown floor tile located throughout the building; 12" x 12" beige floor tile on the first, fifth, and sixth floors; 12" x 12" white floor tile in the restrooms; and roofing materials. Galson also sampled the plaster and sheetrock walls, splined and laid-in ceiling tiles, and linoleum in the penthouse, none of which contained asbestos. Galson recommended the removal of exposed, friable asbestos, and recommended that renovations at the building consider the ACMs found during the survey.

Completion of Asbestos Removal at 1947 Center Street

ATC also reviewed a letter report prepared by Galson, entitled *Completion of Asbestos Removal at 1947 Center Street*, dated December 22, 1987. The letter stated that Galson completed visual inspections and clearance monitoring of the boiler room, first, second, fifth, and sixth floors. The clearance samples were analyzed by Transmission Electron Microscopy (TEM), and "satisfactory results were achieved for both the visual inspections and the clearance air monitoring" (Galson, 1987).

Final Report: 1947 Center Street Building – Asbestos Removal Project – 1947 Center Street – Berkeley, California

ATC reviewed the report prepared by Galson entitled *Final Report: 1947 Center Street Building – Asbestos Removal Project – 1947 Center Street – Berkeley, California*, dated February 8, 1988. According to the report, ACMs were removed from the building from August through December, 1997. The abatement project included the removal of the following materials: insulation from the steam heating, heating hot water, and domestic hot water pipes in the basement mechanical room; insulation from fittings on steam heating, heating hot water, and domestic hot water lines in the basement mechanical room; insulation from vessels in the basement mechanical room, including the hot water tank; insulation from the boilers in the basement mechanical room; insulation from breeching in the basement mechanical room; and asbestos containing plaster ceilings from the basement elevator lobby and the first, second, fifth, and sixth floors. Abatement activities were not conducted on the third and fourth floors of the building.

Completion of Asbestos Related Work – 1947 Center Street – Berkeley, California

ATC also reviewed a letter report prepared by Galson entitled *Completion of Asbestos Related Work – 1947 Center Street – Berkeley, California,* dated March 28, 1988. The report stated that asbestos related work had been completed at the Site, consisting of the removal of asbestos containing plaster ceilings on the first, second, fifth, and sixth floors; asbestos containing thermal insulation in the basement mechanical room; exposed asbestos containing pipe insulation in the basement, stairwells, and on the roof of the first floor annex; asbestos containing pipe insulation exposed by the demolition of plaster ceilings and the washroom walls on the first, second, fifth, and sixth floors; and the sealing of all identified wall and ceiling penetrations that may still contain asbestos containing pipe insulation with spray foam.

Preliminary Environmental Assessment at 1947 Center Street – Berkeley, California

ATC reviewed a *Preliminary Environmental Assessment at 1947 Center Street – Berkeley, California* dated June 28, 1989, prepared by Clayton. According to Clayton, the building was built in 1947 and was occupied by State Farm Insurance Company from 1947 until 1967, when the building was purchased by Educational Testing Service (ETS). The building was purchased by 1947 Center Street Associates in 1977, when it was occupied by both ETS and the Lawrence Berkeley Laboratory Budget Office. At the time of the Clayton report in 1989, the building was occupied by the Department of Health Services: Consulting and Survey Services Genetic Disease Branch and Maternal and Child Health Care, TRW Financial Services, and the International Computer Science Institute (Clayton, 1989).

According to Clayton, the Site was historically occupied by F.W. Foss Company, which supplied wood, lumber, and coal for retail purposes. Clayton also identified Richard's service station to the east of the Site. In addition, the adjacent park across Center Street was previously occupied by lumber yards, an apartment building, and automotive mechanic shops (Clayton, 1989).

At the time of the Clayton site inspection, the elevators at the Site were serviced by Vertrans. Vertrans stated that the passenger elevators were operated by cables and the freight elevator was operated by non-PCB containing AW32 hydraulic oil. In addition, according to Clayton, the elevators were manufactured by Otis, a major elevator manufacturer that was confirmed to have never used hydraulic oils (Clayton, 1989). Therefore, the hydraulic elevator is not considered to represent an environmental concern to the Site. However, Clayton noted the presence of light ballasts in the building, which may contain PCBs.

Clayton did not find any evidence of USTs or ASTs at the Site during their environmental inspection. Clayton stated that there was a low to moderate potential that upgradient fuel leak sites may pose an environmental concern to the Site if the "required emergency response" was not performed by the responsible parties (Clayton, 1989).

2.8 DRINKING WATER ANALYSIS

Drinking water analysis was not required as part of the scope of this Phase I ESA.

FINAL REPORT:
1947 CENTER STREET BUILDING
ASBESTOS REMOVAL PROJECT
1947 CENTER STREET
BERKELEY, CALIFORNIA

GALSON JOB NO. S7-824

PROJECT DURATION
AUGUST 25, 1987 TO DECEMBER 11, 1987

REPORT PREPARED:
FEBRUARY 8, 1988

REPORT PREPARED FOR:
1947 CENTER STREET ASSOCIATES

PREPARED BY:

COLIN S. BROWNLOW
SENIOR INDUSTRIAL HYGIENIST

APPROVED BY:

CHUCK C. SIU, CIH
BRANCH MANAGER

GALSON TECHNICAL SERVICES, INC.
2116 BERKELEY WAY
BERKELEY, CA 94704

1.0 INTRODUCTION

The 1947 Center Street building is a six story office building located at 1947 Center Street, Berkeley, California. The building was built in 1947, and served as the Berkeley offices of State Farm Insurance Co. In recent years the building served as a multi-tenant office space, with the Educational Testing Service (ETS) as the principal tenant. ETS vacated the building in the fall of 1987. The building owners, 1947 Center Street Associates, took the opportunity of the vacant floors to carry out extensive renovations in the building.

Galson Technical Services, Inc. was originally retained to carry out a survey of the building for the presence of asbestos containing materials. The results of that survey (GTS project # S7-365) were sent to the property managers (Gerson Bakar & Associates) in a report entitled Survey for Asbestos Containing Materials At 1947 Center Street, on May 7, 1987. The report states that the insulation on the steam heating and domestic hot water systems contained asbestos. The plaster ceilings and vinyl floors in the basement, 1st, 2nd, 3rd, 4th, 5th, and 6th floors contained asbestos. Four of the twelve roofing layers tested, contained asbestos. Asbestos was not detected in any other building systems.

Galson was asked to prepare the specifications for removal and disposal of asbestos containing materials in the building (GTS Project S7-647). The specifications and addendum to those specifications are contained in Appendix A of this report. Under the scope of work contained in the project specifications and the addendum, the asbestos abatement contractor was responsible for:

- Removal of insulation from steam heating, heating hot water and domestic hot water pipes in the basement mechanical room.
- Removal of insulation from fittings on steam heating, heating hot water and domestic water lines in the basement mechanical room.

- Removal of insulation from vessels in the basement mechanical room, including the domestic hot water tank.
- Removal of insulation from the boilers in the basement mechanical room.
- Removal of insulation from the breeching in the basement mechanical room.
- Removal of asbestos containing plaster ceilings from the basement elevator lobby and the 1st, 2nd, 5th and 6th floors.

The scope of work was selected to tie in with the proposed renovation of the building which included reinsulation of the equipment in the basement mechanical room, renovation and installation of new mechanical systems on the 1st, 2nd, 5th and 6th floors. The 3rd and 4th floors were to remain occupied and were not scheduled for renovation. Prior to the start of the project, the decision was made to exclude removal of the plaster ceiling in the basement elevator lobby from the scope of work.

Apersey Construction was selected as the general contractor for the renovation project. As its asbestos abatement subcontractor, Apersey selected Strategic Organizational Systems, International, Inc. (SOS).

Galson was retained to provide environmental quality assurance and quality control services during the project. Galson reported directly to the building owner throughout the project. Galson's scope of work included the following:

- Inspection and approval of work area preparation to ensure that cross contamination of the clean areas did not occur.

- During the abatement project, collection of air samples daily (Monday through Friday) outside the barricaded work area. One set of samples was to be collected daily covering the work period from 7:30 AM to 4:30 PM. There were two purposes for the air samples: first, to monitor and detect cross-contamination and second, to document the quality of air in the clean areas. Sampling locations were to be selected to reflect:

    a. Worst case conditions - immediately outside the isolation barriers.

IV. Locations of Asbestos-Containing/Presumed Asbestos-Containing Materials

The following materials are either known to contain, or are presumed to contain, asbestos. It is during maintenance or clean-up involving these materials that the O&M Program will be followed.

Material Type	Locations of Material
Thermal System Insulation	steam heating system, domestic hot water system
Plaster Ceilings	3rd & 4th floors
Floor Tile	3rd & 4th floors
Roofing Materials[1]	4 of 12 layers - roof

[1] Any work performed on roofing materials may negate the warranty and/or cause leaking. It is recommended that warranty information be reviewed if any roof work is performed by a licensed contractor.

TABLE 1

ASBESTOS CONTENT OF BULK MATERIAL SAMPLES
FROM 1947 CENTER STREET

SAMPLE I.D.	DESCRIPTION	LOCATION	% ASBESTOS
MER-A-BLR-1A	Boiler	Basement Mechanical Rm	70
MER-A-BRCH-2A	Breeching	Bsmt Mech. Rm	70
MER-A-STM-3A	Steam Pipe Lagging	Bsmt Mech. Rm	60
MER-STMF-4A	Steam Pipe Fittings	Bsmt Mech. Rm	Not Detected
MER-A-STM-5A	Steam Pipe Lagging	Bsmt Mech. Rm	60
MER-A-STMF-6A	Steam Pipe Fitting	Bsmt Mech. Rm	80
MER-A-HX-7A	Heat Exchanger	Bsmt Mech. Rm	60
MER-A-HWF-8A	Hot Water Fitting	Bsmt Mech. Rm	Not Detected
MER-A-DHW-9A	Domestic Hot Water Pipe	Bsmt Mech. Rm	70
MER-A-DHWF-10A	Domestic Hot Water Fitting	Bsmt Mech. Rm	50
MER-A-DHWT-11A	Domestic Hot Water Tank	Bsmt Mech. Rm	60
BSMT-PLWL-12A	Plaster Wall	Basement	Not Detected
BSMT-SHWL-13A	Sheetrock Wall	Basement	Not Detected
BSMT-PLCL-14A	Plaster Ceiling	Basement	20

TABLE 1 (continued)

SAMPLE I.D.	DESCRIPTION	LOCATION	% ASBESTOS
BSMT-VAT-15A	Vinyl Floor Tile	Basement	20
1/F-VAT-16A	Vinyl Floor Tile	1st Floor Southern Area	10
1/F-PLCL-17A	Plaster Ceiling	1st Floor	10
1/F-VAT-18A	Vinyl Floor Tile	1st Floor Restroom	10
1/F-PLWL-19A	Plaster Wall	1st Floor	Not Detected
1/F-STM-20A	Steam Pipe Lagging	1st Floor	30
2/F-SPCT-21A	Splined Ceiling Tile	2nd Floor	Not Detected
2/F-PLWL-22A	Plaster Wall	2nd Floor	Not Detected
2/F-VAT-23A	Vinyl Floor Tile	2nd Floor	20
2/F-SPCT-24A	Splined Ceiling Tile	2nd Floor	Not Detected
2/F-SPCT-25A	Splined Ceiling Tile	2nd Floor	Not Detected
2/F-SPCT-26A	Splined Ceiling Tile	2nd Floor	Not Detected
3/F-LICT-27A	Laid-in Ceiling Tile	3rd Floor	Not Detected
3/F-PLCL-28A	Plaster Ceiling	3rd Floor	Not Detected
3/F-VAT-29A	Vinyl Floor Tile	3rd Floor	Not Detected

TABLE 1(continued)

SAMPLE I.D.	DESCRIPTION	LOCATION	% ASBESTOS
4/F-PLWL-30A	Plaster Wall	4th Floor	Not Detected
4/F-LICT-31A	Laid-in Ceiling Tile	4th Floor	Not Detected
5/F-PLCL-32A	Plaster Ceiling	4th Floor	10
5/F-VAT-33A	Vinyl Floor Tile	4th Floor	10
6/F-VAT-34A	Vinyl Floor Tile	4th Floor	10
6/F-PLCL-35A	Plaster Ceiling	4th Floor	10
PTHS-LINO-36A	Linoleum	Penthouse	Not Detected
A, CEN	Roofing material 1st (top) layer	N.E. Section 2nd floor	10
B, CEN	Roofing material 2nd layer	N.E. Section 2nd floor	0
C, CEN	Roofing material 3rd layer	N.E. Section 2nd floor	TRACE
D, CEN	Roofing material 4th layer	N.E. Section 2nd floor	0
E, CEN	Roofing material 5th layer	N.E. Section 2nd floor	0
F, CEN	Roofing material 1st layer	S.W. Section Top Roof	0
G, CEN	Roofing material 2nd layer	S.W. Section Top Roof	0
H, CEN	Roofing material 3rd layer	S.W. Section Top Roof	0

TABLE 1(continued)

SAMPLE I.D.	DESCRIPTION	LOCATION	% ASBESTOS
I, CEN	Roofing material 4th layer	S.W. Section Top Roof	0
J, CEN	Roofing material 1st layer	N.W. Section Top Roof	30
K, CEN	Roofing material 2nd layer	N.W. Section Top Roof	40
L, CEN	Roofing material 3rd layer	N.W. Section Top Roof	20

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

Limited Asbestos Survey For Facility Repairs

for

City of Berkeley, CA
1947 Center Street
Berkeley, CA

Acumen Project No. COB 1503

July, 2015

Prepared for:

Ms. Joy Brown
Environmental Compliance Specialist
Public Works Department - City of Berkeley
1326 Allston Way, Berkeley, CA 94702

This report was prepared by (July 11, 2015)

Paul M. Spillane, CIH, CAC
Principal Industrial Hygienist
Certified Asbestos Consultant: #10-4630

Abstract

The objective of our services is to determine the presence of asbestos containing material (ACM) in areas planned for facility upgrades and renovations. We understand upgrades and renovations will involve a multiphase remodel and repairs to the 1947 Center Street (Berkeley, CA) building that was constructed in the mid-20th Century (1947), but extensively remodeled in 1987 and 2003.

A previous asbestos report from Galson Technical Services (Galson, 1987) indicated steam heating and domestic hot water thermal system insulation (TSI) contained asbestos. Plaster ceilings and vinyl floor tile were also reported to be ACM. Galson also discovered asbestos in roofing materials, but there was no mention in these reports regarding testing of exteriors. Materials that tested negative at that time included plaster walls, sheetrock, (drywall/taping mud), linoleum (vinyl sheet flooring) and ceiling tiles (splined and lay-in types).

Based on subsequent Galson letter reports (1988) asbestos was consequently abated from various areas in the building, but some asbestos was left in place, including plaster ceilings the 3rd and 4th floors, vinyl floor tiles (throughout) and thermal insulation inside some pipe chases. Information was not provided regarding the 2003 remodel, however an asbestos project report indicated pipe insulation and vinyl floor tile were abated from the second floor in 2005 (Protech, 2005).

The recent testing by Acumen Industrial Hygiene, Inc. (Acumen) on June 22, 2015 discovered ACM is present in exterior paint and texture on concrete, in exterior window putty and in skylight putty. We also confirmed the presence of asbestos as 9x9" vinyl floor tiles and mastics under carpets and in mechanical closets of 1st, 2nd, 3rd and 4th floors. Asbestos was not detected in pipe chase debris, drywall/taping mud, plaster walls or exterior duct tape (2nd floor roof).

TABLE OF CONTENTS

1.0 INTRODUCTION....1

2.0 SUMMARY OF INVESTIGATION....1
2.1 Asbestos Containing Materials Inspection Methods....1
2.2 Previous Reports Of Asbestos Containing Materials....2

3.0 FINDINGS AND DISCUSSION....2

4.0 SUMMARY OF FINDINGS....3
4.1 Asbestos Related Findings....3

5.0 RECOMMENDATIONS....4
5.1 Recommendations For ACM During Building Renovations....4
5.2 Recommendations For Managing ACM In Place (if leaving ACM in place)....4

6.0 CONCLUSIONS....4

APPENDIX A ANALYTICAL REPORTS AND CHAINS OF CUSTODY

APPENDIX B SAMPLE LOCATION DRAWINGS

APPENDIX C SITE PHOTOGRAPHS

1.0 Introduction

The purpose of this report is to provide the findings of a limited asbestos containing materials (ACM) survey Acumen Industrial Hygiene, Inc. (Acumen) conducted at the above referenced facility (1947 Center Street, Berkeley, California). We understand upgrades and renovations will involve a multiphase remodel and repairs to the 1947 Center Street (Berkeley, CA) building that was constructed in the mid-20th Century (1947), but extensively remodeled in 1987 and 2003. Mr. Paul Spillane, CIH, CAC, conducted the investigation at the building(s) on June 23, 2015.

The main objective of our services is to provide project guidance for complying with applicable regulations, including California Department of Occupational Safety & Health (Cal-OSHA), California Department of Toxic Substances Control (DTSC) and Bay Area Air Quality Management District (BAAQMD) as they relate to asbestos. Our scope of work was as follows:

- Sample exterior window and skylight caulking for asbestos. This material is often assumed to contain asbestos and because it gets replaced on an "as needed" based throughout the history of the building. Multiple samples are required to prove it does not contain asbestos.
- Collect asbestos samples of exterior textured paint on concrete. This will need to be disclosed to contactors working on exteriors, because their work may disturb this material.
- Sample the debris found on the basement due to the water leaks.
- Sample original drywall/plasters in the center pipe chase.
- Based on the areas of planned remodel, we understand that some flooring, ceilings and drywall will be demolished.

2.0 Summary of Investigation

2.1 Asbestos Containing Materials Inspection Methods

The inspection consisted of a walkthrough of accessible areas at the site to identify and sample suspect ACM containing materials. Acumen's standard survey protocol is to conduct asbestos inspections in three steps: conducting a review of existing building survey records and/or drawings; physically surveying structure for suspect materials; and documenting our findings in a written report format. There were no previous survey documents of the building for review.

Asbestos bulk samples are physically collected by taking a small core section of the suspect asbestos material using hand tools. Acumen noted significant factors of suspect ACM including conditions, homogeneity, locations, quantity, potential for damage or disturbance, and friability. Friability describes the ability of a material to be crushed or crumbled, when dry, into a powder using hand pressure. Where suspect materials were noted, bulk samples were collected. At the building, Acumen collected samples of various suspect ACM and lead containing materials. We collected forty-four (44) total asbestos bulk samples.

Samples were given a unique identification number and submitted with our chain of custody forms to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. Micro Analytical Laboratories, Inc. is accredited to analyze asbestos and lead samples. Micro holds the National Institute of Standards and Technology (NIST)/ National Voluntary Laboratory Accreditation Program (NVLAP) accreditation for Transmission Electron Microscopy (TEM) (ISO/IEC 17025:1999); Polarized Light Microscopy (PLM)

(EPA-600/M4-82-020, ISO 9002:1994) Airborne Asbestos, Lab Code #101872-0 and; NIST (NVLAP), Bulk Asbestos, Lab Code 101872-0; and AIHA ELLAP Industrial Hygiene Laboratory Program, #101768.

2.2 Previous reports of Asbestos Containing Materials

Acumen reviewed excerpts of the following reports:

- *Survey for Asbestos Containing Materials at 1947 Center Street - Berkeley, California*, by Galson Technical Services, May 7, 1987.
- *Completion of Asbestos Removal at 1947 Center Street*, by Galson Technical Services, December, 22, 1987.
- *Final Report: 1947 Center Street Building - Asbestos Removal Project - 1947 Center Street – Berkeley, California.* by Galson Technical Services, March 28, 1988.
- *Phase I Environmental Site Assessment, Commercial Building, 1947 Center Street, Berkeley, California 94704,* ATC Associates Inc., June 7, 1999.
- Asbestos Abatement Project Report, Conducted at 1947 Center Street, 2nd Floor, *Berkeley, California.* Protech Consulting and Engineering, March 2005.

Based on review of these reports, Galson Technical Services identified steam heating and domestic hot water insulation systems contained asbestos (Galson, 1987). Plaster ceilings and vinyl floor tile also reported to be asbestos containing materials (ACM). Galson also discovered asbestos in roofing materials, but there was no mention in the reports regarding testing of exteriors.

Based on subsequent Galson letter reports (Galson, 1988) asbestos was consequently abated from various areas in the building, but some asbestos was left in place, including plaster ceilings on basement, 3rd and 4th floors, vinyl floor tiles (unclear where it was left in place) and thermal insulation inside some pipe chases. Information was not provided regarding the 2003 remodel, however a Protech asbestos project report indicated pipe insulation and vinyl floor tile were abated from the second floor in 2005 (Protech, 2005).

3.0 Findings and Discussion

The 1947 Center Street building is a six-story office building plus basement located at 1947 Center Street, Berkeley, California. The building was reportedly constructed in 1947 slab-on-grade using poured in-place concrete. The basic structure is rebar-reinforced concrete.

During this recent survey, Acumen sampled exterior texture paint on concrete for asbestos. Of the seven (7) samples collected from exterior textured wall paint, asbestos was present in one of the seven (sample COB1503-01A, Photo 1). This paint is assumed to contain lead. Acumen sampled exterior window putty located between glass and metal sash at fifteen (15) locations and was also found to contain <1% to 2% asbestos in three of the 15 collected (Samples COB1503-02A, COB1503-02D and COB1503-02J, Photo 2).

Acumen composite sampled the debris located at a basement closet under the pipe chase where a recent water leak has occurred. Asbestos was not detected (Sample COB1503-04A), nor was asbestos detected in the plaster walls and drywall walls tested (Samples COB1503-03A, COB1503-03B, COB1503-03C, COB1503-03D, COB1503-03E, COB1503-03F, COB1503-03G, COB1503-09A, COB1503-09B, COB1503-09C).

The roofs were previously determined to contain asbestos by Galson, (1987). Acumen sampled the

skylight putty on the second floor roof and determined it to contain 5% asbestos (Samples COB1503-05A, COB1503-05B, COB1503-05C).

There is an old HVAC system on this roof and Acumen Sampled the duct tape which does not contain asbestos (Samples COB1503-06A, COB1503-06B, COB1503-06C).

Asbestos flooring was found to be present on floors 1 through 4. On the first floor waiting room, brown 9x9" vinyl floor tiles are present under carpet. On the second floor, vinyl floor tiles are present are not under the carpets (where inspected), however brown 9x9" vinyl floor tiles are present in the mechanical rooms. Acumen sampled flooring under carpets on the 3rd and 4th floors and confirmed asbestos is present (Samples COB1503-07A, COB1503-07B, COB1503-07C). Previously vinyl sheet flooring (as linoleum) was indicated as none-detected by Galson (1987). We collected one sample of vinyl sheet flooring from mechanical room #322 on the third floor, which does not contain asbestos (Sample COB1503-08A).

Previously plaster ceilings were reported to contain 10% asbestos by Galson (1987). Acumen did not observe plaster ceilings during our inspection, however we cannot rule out that these may be present above drop ceilings.

4.0 Summary of Findings

4.1 Asbestos Related Findings

The results of this investigation sampling determined that ACM materials are present at the following locations. These materials must be handled by a licensed abatement contractor, if impacted during the planned renovations.

Asbestos Containing Materials

Materials Sampled and confirmed ACM June 23, 2015:

- Exterior textured light orange paint on concrete, Front elevation (south elevation) Ground floor – right side: Paint (Violet /Tan): 2% Chrysotile Asbestos, Texture Coating (Gray / Beige): 4% Chrysotile Asbestos (Photo 1). Note that asbestos was detected in only one (3) of the seven (7) exterior paint locations sampled;
- Window Putty: <1% to 2% Chrysotile Asbestos (Photo 2). Note that asbestos was detected in three (3) of the fifteen (15) window putties sampled;
- Skylight Caulking: 5% to 6% Chrysotile Asbestos (Photo 3);
- 9x9" vinyl floor tile and mastic: 3% to 15% Chrysotile Asbestos, mastic is inseparable (Photo 4);

Materials previously reported to contain asbestos (Galson, 1987):

- Pipe Insulation (Located in non-accessible locations such as pipe chases, risers and soffits);
- Plaster ceilings (Potentially above drop ceilings, Basement, 3rd floor and 4th floor);
- Roofing materials.

Materials that were sampled and do not contain asbestos include the following:

- Plaster walls and interior paint
- Drywall/taping mud and paint
- Duct Tape (Second floor roof HVAC)
- Debris in basement closet (from recent leak)
- Vinyl Sheet Flooring

5.0 Recommendations

5.1 Recommendations for ACM During Building Renovations

1. Notify potential renovation contractors of the presence of ACM in the building. Disturbance of ACM requires special training and procedures. BAAQMD regulations require that ACM be properly removed and disposed, prior to demolition or renovation where they would be disturbed. A Cal-OSHA registered asbestos contractor is required for work that involves ACM.
2. Notify potential renovation or demolition contractors of the presumed presence of lead-containing paints at the building. Disturbance of these materials require compliance with Cal-OSHA's lead in construction regulation.
3. Although there is no regulatory requirement for it, it would be advisable to develop either a work plan or specification for the handling of asbestos during renovations. Asbestos work should be monitored for compliance by a third party Certified Asbestos Consultant to document proper handling and disposal.

5.2 Recommendations For Managing ACM In Place (If leaving ACM in place)

1. Notify building occupants and employees of the presence of asbestos, as required under California Health & Safety Code 25915.7-25919.7 (Connelly Bill) and by Cal-OSHA regulations. The materials have a low fiber release potential if it remains undisturbed. Notify contractor and maintenance employees of this report.
2. Prepare and implement an asbestos Operations and Maintenance (O&M) program to manage ACMs that will remain in place in the building. This asbestos O&M program should detail roles and responsibilities for managing ACM at the complex. The O&M program should establish written policies and procedures for asbestos safe work practices to minimize the potential for unauthorized disturbance of ACM, monitor the condition of ACM and respond to damage or deterioration of ACM, with the goal of preventing the release of airborne asbestos fibers. Implementation of the O&M program will require that facility employees receive annual asbestos training. The O&M program should remain in place as long as ACM remains in the buildings.
3. The presence of lead based paints should also be managed under an O&M program. The O&M program should establish written policies and procedures for lead-safe work practices as required by EPA and California laws. The O&M program should establish policy for monitoring the condition of lead-based paints and respond to damage or deterioration of lead, with the goal of preventing lead poisoning.
4. The California – Proposition 65 rules require posting a sign warning of potential hazards, because of the presence of leaded paint and asbestos

6.0 Conclusions

Acumen has completed an asbestos and lead survey of 1947 Center Street (Berkeley, CA). This investigation found asbestos in exterior paint, window putty, skylight caulking and vinyl floor tiles/mastic. Previous surveys indicated the presence of asbestos thermal system insulation and ceiling plasters, which may still be present at the building in inaccessible locations. Work that disturbs these materials must be conducted by Cal-OSHA registered asbestos contractor and documented by a third party Certified Asbestos Consultant. For ACMs not abated at this time, these would need to be managed under an O&M program.

Please feel free to contact us if you have any questions or comments regarding this report. Thank you for the opportunity to be of service.

Limitations

Reasonable effort was made by Acumen personnel to locate and sample suspect materials. However, for any facility or building, the existence of unique or concealed ACM or lead containing materials and debris is a possibility. Acumen does not warrant, guarantee, or profess to have the ability to locate or identify all ACM/ACCM or other hazardous materials at this facility. The intent of this report is for use in planning for demolition. All quantities of materials identified in this report should be field verified by contractors prior to submitting bids to perform abatement work. Additional confirmatory sampling and detailed quantification may be required if the demolition uncovers additional suspect materials. The report is not intended as a CDPH or HUD defined "lead hazard evaluation" or "lead inspection".

Acumen provided these services consistent with the level and skill ordinarily exercised by members of the profession currently providing similar services under similar circumstances at the time the services were provided. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the owner/client and their designees. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of certain other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user.

As with all such assessments, the results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times. Additionally, this assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of all conditions within the facility. The information presented in this report is intended to be used as a guide to evaluate the need for materials removal, further investigation or the need for modifications to the processes or procedures surveyed.

The client should recognize that all testing and remediation methods have reliability limitations, no method or number of sampling locations can guarantee that a condition will be discovered within the performance of the services as authorized by the client. Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during Acumens' inspection of the site.

Table 1

Asbestos Containing Material
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	BAAQMD [2]	Sample No.
Front Elevation South Elevation Ground Floor - Right	Exterior Textured Light Orange Paint on Concrete	Violet/Tan Paint: 2% CH Gray/Beige Texture Coating: 4% CH	RACM	COB1503-01A
South Elevation Fourth Floor, Center	Window Putty	Yellow/Beige Putty: <1% CH Paint: ND	Cat II (NF)	COB1503-02A
Outside Second Floor North Side Patch	Window Putty	Gray Blue Putty: <1% CH Paint: ND	Cat II (NF)	COB1503-02D
South Elevation, Third Floor Right	Window Putty	White Putty: 2% CH Paint: ND	Cat II (NF)	COB1503-02J
Skylight East Side Ground Outdoor	Skylight Putty	6% CH	Cat II (NF)	COB1503-05A
Skylight North Side Outdoor Ground Second Floor	Skylight Putty	Gray Putty: 5% CH Black Putty/Caulk: ND	Cat II (NF)	COB1503-05C
Third Floor West Side Electrical Room 303	9x9" Brown Vinyl Floor Tiles with Black Mastic	Brown Floor Tile: 15% CH	Cat I (NF)	COB1503-07A

Footnotes

1. Results report percent (%) asbestos as determined by polarized light microscopy (PLM). CH indicates Chrysotile asbestos, AC indicates Actinolite asbestos, TR indicates Tremolite asbestos, AM indicates Amosite asbestos, CR indicates Crocidolite, PP indicates that sample was not analyzed because of Prior Positive and ND indicates no asbestos detected.
2. BAAQMD indicates classification into friable (Regulated Asbestos Containing Material, RACM) or non-friable ACM (Category I or Category II Non-Friable).
3. EQ means estimated quantity either in square feet (SF) or linear feet (LF).

Table 1(continued)

Asbestos Containing Material
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	BAAQMD [2]	Sample No.
Floor Tile Under Carpet South Side Third Floor	9x9" Brown Vinyl Floor Tiles with Black Mastic	Tan Floor Tile: 3% CH	Cat I (NF)	COB1503-07B
Carpet, Fourth Floor Southeast Side	9x9" Brown Vinyl Floor Tiles with Black Mastic	Brown Floor Tile: 15% CH Yellow Carpet Mastic: ND	Cat I (NF)	COB1503-07C

Footnotes

1. Results report percent (%) asbestos as determined by polarized light microscopy (PLM). CH indicates Chrysotile asbestos, AC indicates Actinolite asbestos, TR indicates Tremolite asbestos, AM indicates Amosite asbestos, CR indicates Crocidolite, PP indicates that sample was not analyzed because of Prior Positive and ND indicates no asbestos detected.
2. BAAQMD indicates classification into friable (Regulated Asbestos Containing Material, RACM) or non-friable ACM (Category I or Category II Non-Friable).
3. EQ means estimated quantity either in square feet (SF) or linear feet (LF).

Table 2

Non-Asbestos Containing Materials
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	Sample No.
West Elevation on Ground Floor Left	Exterior Textured Light Orange Paint on Concrete	White Paint : ND Gray Texture Coating : ND Concrete: ND	COB1503-01B
Skylight North Center Elevation	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating: ND Concrete: ND	COB1503-01C
East Elevation Outdoor, Second Floor	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating: ND Concrete: ND	COB1503-01D
West Elevation Second Floor Window	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating: ND	COB1503-01E
North Elevation Parapet	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating : ND Concrete: ND	COB1503-01F
East Side Fourth Floor Window Outside	Exterior Textured Light Orange Paint on Concrete	White Paint: ND Gray Texture Coating: ND Concrete: ND	COB1503-01G
South Side, Center First Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02B
Sky Light, North Side Elevation (Center) Second Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02C
East Elevation Second Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02E
Skylight Window Second Floor North Side Elevation	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02F
West Elevation, Second Floor Window	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02G

Footnote

1. Samples were analyzed by polarized light microscopy and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

Table 2 (continued)

Non-Asbestos Containing Materials
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	Sample No.
West Elevation, Patch Second Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02H
East Elevation, Third Floor Window	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02I
Third Floor South Elevation Left Window	Window Putty	White Putty: ND Paint: ND	COB1503-02K
West Side Elevation Third Floor Window	Window Putty	Yellow/Beige Putty: ND Paint: ND	COB1503-02L
West Side Elevation Window Fourth Floor	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02M
Fourth Floor, North Side	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02N
Fourth Floor, East Side Window	Window Putty	White/Gray Putty: ND Paint: ND	COB1503-02O
Fourth Floor South	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Texture Compound /Paint: ND	COB1503-03A
Fourth Floor Center Closet Of Electrical	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Paint: ND	COB1503-03B
Second Floor West Side Mechanical Room	Interior Plaster Center Window	Drywall: ND	COB1503-03C
Plaster Wall in Electric Room Third Floor Room 303	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Paint: ND	COB1503-03D
Inner Wall, Room 303 Electric Room	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND	COB1503-03E

Footnote

1. Samples were analyzed by polarized light microscopy and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

Table 2 (continued)

Non-Asbestos Containing Materials
1947 Center Street
Berkeley, CA

June 22, 2015

Location	Material	Results [1]	Sample No.
Mechanical Room 322 The Wall	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Paint: ND	COB1503-03F
Fourth Floor Women's Bathroom Wall	Interior Plaster Center Window	Base Plaster: ND Skim Coat: ND Adhesive: ND	COB1503-03G
Basement, Ster. Room 009 Lab	Interior Debris	Plaster: ND Skim Coat: ND	COB1503-04A
Basement, Ster. Room 009	Interior Debris	Sheetrock: ND Compound: ND	COB1503-04A
Skylight North Side Outdoor Ground	Skylight Putty	ND	COB1503-05B
West Elevation Second Floor Duct	Duct Seam, Tape Glue	Tape / Glue: ND	COB1503-06A
West Elevation Second Floor Duct	Duct Seam, Tape Glue	Tape / Glue: ND	COB1503-06B
West Elevation Second Floor Duct	Duct Seam, Tape Glue	Tape / Glue: ND	COB1503-06C
Mechanical Room 322 Linoleum Floor Third Floor	Yellow Vinyl Sheet Flooring	Vinyl Sheet Flooring: ND Backing / Mastic: ND	COB1503-08A
Janitor's Room, Fourth Floor in The Wall	Drywall Taping Mud	Drywall: ND Taping Mud: ND Paint: ND	COB1503-09A
Fourth Floor East Side Mechanical Room	Drywall Taping Mud	Drywall: ND Taping Mud: ND Tape / Paint: ND	COB1503-09B
First Floor South Side Center Wall	Drywall Taping Mud	Drywall: ND Taping Mud: ND Tape / Paint: ND	COB1503-09C

Footnote

1. Samples were analyzed by polarized light microscopy and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

Appendix A

Laboratory Reports

1947 Center Street
Berkeley, CA

June 22, 2015

Acumen Project No. COB 1503

Prepared For:

City of Berkeley
Public Works Department
1326 Allston Way, Berkeley
Berkeley, CA 94702

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**207373**
Total Samples	44
Date Sampled	06/22/2015
Date Received	06/22/2015
Date Analyzed	06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-01A** Micro #: 207373-01 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE FRONT ELEVATION (SOUTH ELEVATION) GROUND FLOOR - RIGHT**	**PAINT (VIOLET /TAN): 2% CHRYSOTILE ASBESTOS** **TEXTURE COATING (GRAY / BEIGE): 4% CHRYSOTILE ASBESTOS**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01B** Micro #: 207373-02 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE WEST ELEVATION ON GROUND FLOOR LEFT**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01C** Micro #: 207373-03 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE SKYLIGHT NORTH CENTER ELEVATION**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01D** Micro #: 207373-04 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE EAST ELEVATION OUTDOOR, 2ND FLOOR**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01E** Micro #: 207373-05 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE WEST ELEVATION 2ND FLOOR WINDOW**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: _____ 6/23/2015
Gamini Ranatunga, Ph.D. Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**207373**
Total Samples	44
Date Sampled	06/22/2015
Date Received	06/22/2015
Date Analyzed	06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-01F** Micro #: 207373-06 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE NORTH ELEVATION PARAPET**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-01G** Micro #: 207373-07 Analyst: GR **EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE EAST SIDE 4TH FLOOR WINDOW OUTSIDE**	**PAINT (WHITE): NONE DETECTED** **TEXTURE COATING (GRAY): NONE DETECTED** **CONCRETE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-02A** Micro #: 207373-08 Analyst: GR **WINDOW PUTTY LIGHT ORANGE PAINT ON CONCRETE SOUTH ELEVATION FOURTH FLOOR, CENTER**	**PUTTY (YELLOW / BEIGE): < 1% CHRYSOTILE ASBESTOS** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02B** Micro #: 207373-09 Analyst: GR **WINDOW PUTTY LIGHT ORANGE PAINT ON CONCRETE SOUTH SIDE, CENTER 1ST FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02C** Micro #: 207373-10 Analyst: GR **WINDOW PUTTY LIGHT ORANGE PAINT ON CONCRETE SKY LIGHT, NORTH SIDE ELEVATION (CENTER) 2ND FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-02D** Micro #: 207373-11 Analyst: GR GR **WINDOW PUTTY** **OUTSIDE 2ND FLOOR** **NORTH SIDE PATCH**	**PUTTY (GRAY BLUE): < 1% CHRYSOTILE ASBESTOS** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02E** Micro #: 207373-12 Analyst: GR **WINDOW PUTTY** **EAST ELEVATION 2ND FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02F** Micro #: 207373-13 Analyst: GR **WINDOW PUTTY** **SKYLIGHT WINDOW 2ND FLOOR** **NORTH SIDE ELEVATION**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02G** Micro #: 207373-14 Analyst: GR **WINDOW PUTTY** **WEST ELEVATION, 2ND FLOOR WINDOW**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02H** Micro #: 207373-15 Analyst: GR **WINDOW PUTTY** **WEST ELEVATION, PATCH 2ND FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**207373**
Total Samples	44
Date Sampled	06/22/2015
Date Received	06/22/2015
Date Analyzed	06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-02I** Micro #: 207373-16 Analyst: GR **WINDOW PUTTY** **EAST ELEVATION, 3RD FLOOR WINDOW**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02J** Micro #: 207373-17 Analyst: GR GR **WINDOW PUTTY** **SOUTH ELEVATION, 3D FLOOR (RIGHT)**	**PUTTY (WHITE): 2% CHRYSOTILE ASBESTOS** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02K** Micro #: 207373-18 Analyst: GR GR **WINDOW PUTTY** **SOUTH ELEVATION LEFT** **WINDOW 3RD FLOOR**	**PUTTY (WHITE): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02L** Micro #: 207373-19 Analyst: GR GR **WINDOW PUTTY** **WEST SIDE ELEVATION** **3RD FLOOR WINDOW**	**PUTTY (YELLOW / BEIGE): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02M** Micro #: 207373-20 Analyst: GR **WINDOW PUTTY** **WEST SIDE ELEVATION** **WINDOW 4TH FLOOR**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/24/2015 Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-02N** Micro #: 207373-21 Analyst: GR **WINDOW PUTTY** **4TH FLOOR, NORTH SIDE**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-02O** Micro #: 207373-22 Analyst: GR **WINDOW PUTTY** **4TH FLOOR, EAST SIDE WINDOW**	**PUTTY (WHITE / GRAY): NONE DETECTED** **PAINT: NONE DETECTED**	NFM: SYNTHETIC MATERIAL, CARBONATE.
Client #: **COB1503-03A** Micro #: 207373-23 Analyst: GR **INTERIOR PLASTER CENTER WINDOW** **FOURTH FLOOR SOUTH**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **TEXTURE COMPOUND / PAINT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03B** Micro #: 207373-24 Analyst: GR **INTERIOR PLASTER CENTER WINDOW** **FOURTH FLOOR CENTER CLOSET** **OF ELECTRICAL**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **PAINT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03C** Micro #: 207373-25 Analyst: GR **INTERIOR PLASTER CENTER WINDOW** **2ND FLOOR WEST SIDE MECHANICAL ROOM**	**DRYWALL: NONE DETECTED** **(NO PLASTER IN THE SAMPLE)**	NFM: 'GYPSUM' (CALCIUM SULFATE).

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-03D** Micro #: 207373-26 Analyst: BK **INTERIOR PLASTER CENTER WINDOW PLASTER WALL IN ELECTRIC ROOM 3RD FLOOR (ROOM 303)**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **PAINT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03E** Micro #: 207373-27 Analyst: BK **INTERIOR PLASTER CENTER WINDOW INNER WALL, ROOM 303 ELECTRIC ROOM**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03F** Micro #: 207373-28 Analyst: BK **INTERIOR PLASTER CENTER WINDOW MECHANICAL ROOM 322 THE WALL**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **PAINT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-03G** Micro #: 207373-29 Analyst: BK GR **INTERIOR PLASTER CENTER WINDOW WOMEN'S BATHROOM WALL FOURTH FLOOR**	**BASE PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED** **ADHESIVE: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **COB1503-04A** Micro #: 207373-30A Analyst: BK **INTERIOR DEBRIS BASEMENT, STER. ROOM 009** ***LAB NOTE: PLASTER***	**PLASTER: NONE DETECTED** **SKIM COAT: NONE DETECTED**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**207373**
Total Samples	44
Date Sampled	06/22/2015
Date Received	06/22/2015
Date Analyzed	06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-04A** Micro #: 207373-30B Analyst: BK **INTERIOR DEBRIS** **BASEMENT, STER. ROOM 009** ***LAB NOTE: SHEETROCK***	**SHEETROCK: NONE DETECTED** **COMPOUND: NONE DETECTED**	NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: **COB1503-05A** Micro #: 207373-31 Analyst: GR **SKYLIGHT PUTTY** **SKYLIGHT EAST SIDE GROUND OUTDOOR**	**6% CHRYSOTILE ASBESTOS**	3 % CELLULOSE 5 % WOLLASTONITE / POLYETHYLENE NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-05B** Micro #: 207373-32 Analyst: GR **SKYLIGHT PUTTY** **SKYLIGHT NORTH SIDE OUTDOOR GROUND**	**NONE DETECTED**	NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-05C** Micro #: 207373-33 Analyst: GR **SKYLIGHT PUTTY** **SKYLIGHT NORTH SIDE OUTDOOR GROUND** **2ND FLOOR**	**PUTTY (GRAY): 5% CHRYSOTILE ASBESTOS** **PUTTY / CAULK (BLACK): NONE DETECTED**	3 % CELLULOSE 5 % WOLLASTONITE / POLYETHYLENE NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-06A** Micro #: 207373-34 Analyst: GR **DUCT SEAM, TAPE GLUE** **WEST ELEVATION 2ND FLOOR DUCT**	**TAPE / GLUE: NONE DETECTED**	NFM: BINDER, OTHER, MISCELLANEOUS.

Technical Supervisor: _____ 6/23/2015
Gamini Ranatunga, Ph.D. Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**207373**
Total Samples	44
Date Sampled	06/22/2015
Date Received	06/22/2015
Date Analyzed	06/22/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-06B** Micro #: 207373-35 Analyst: GR **DUCT SEAM, TAPE GLUE** **WEST ELEVATION 2ND FLOOR DUCT**	**TAPE / GLUE: NONE DETECTED**	NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-06C** Micro #: 207373-36 Analyst: GR **DUCT SEAM, TAPE GLUE** **WEST ELEVATION 2ND FLOOR DUCT**	**TAPE / GLUE: NONE DETECTED**	NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-07A** Micro #: 207373-37 Analyst: GR **9" X 9" VFT BROWN WITH BLACK MASTIC** **WEST SIDE ELECTRICAL ROOM, 303 3RD FLOOR**	**FLOOR TILE (BROWN): 15% CHRYSOTILE ASBESTOS** **(MASTIC (BLACK) IS INSEPARABLE)**	NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: **COB1503-07B** Micro #: 207373-38 Analyst: GR GR **9" X 9" VFT BROWN WITH BLACK MASTIC** **FLOOR TILE UNDER CARPET** **SOUTH SIDE 3RD FLOOR**	**FLOOR TILE (TAN): 3% CHRYSOTILE ASBESTOS** **(MASTIC (BLACK) IS INSEPARABLE)**	NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: **COB1503-07C** Micro #: 207373-39 Analyst: GR **9" X 9" VFT BROWN WITH BLACK MASTIC** **CARPET, 4TH FLOOR** **SOUTHEAST SIDE 9X9**	**FLOOR TILE (BROWN): 15% CHRYSOTILE ASBESTOS** **CARPET MASTIC (YELLOW): NONE DETECTED** **(MASTIC (BLACK) IS INSEPARABLE)**	NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB1503
1947 CENTER STREET
BERKELEY, CA

Micro Log In **207373**
Total Samples 44
Date Sampled 06/22/2015
Date Received 06/22/2015
Date Analyzed 06/23/2015

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: **COB1503-08A** Micro #: 207373-40 Analyst: GR **YELLOW VSF** **MECHANICAL ROOM 322** **LINOLEUM FLOOR 3RD FLOOR**	**VINYL SHEET FLOORING: NONE DETECTED** **BACKING / MASTIC: NONE DETECTED**	15 % CELLULOSE NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: **COB1503-09A** Micro #: 207373-41 Analyst: GR **DRYWALL TAPING MUD** **JANITOR'S ROOM, FOURTH FLOOR** **IN THE WALL**	**DRYWALL: NONE DETECTED** **TAPING MUD: NONE DETECTED** **PAINT: NONE DETECTED**	15 % CELLULOSE 2 % FIBROUS GLASS NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: **COB1503-09B** Micro #: 207373-42 Analyst: GR **DRYWALL TAPING MUD** **MECHANICAL ROOM, EAST SIDE** **4TH FLOOR**	**DRYWALL: NONE DETECTED** **TAPING MUD: NONE DETECTED** **TAPE / PAINT: NONE DETECTED**	15 % CELLULOSE 2 % FIBROUS GLASS NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: **COB1503-09C** Micro #: 207373-43 Analyst: GR **DRYWALL TAPING MUD** **1ST FLOOR SOUTH SIDE CENTER WALL**	**DRYWALL: NONE DETECTED** **TAPING MUD: NONE DETECTED** **TAPE / PAINT: NONE DETECTED**	15 % CELLULOSE 2 % FIBROUS GLASS NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.

Technical Supervisor: Gamini Ranatunga, Ph.D. 6/23/2015 Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported materials other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

207373

Project No. COB 1503

Job Site: 1947 Center Street
Location: Berkeley, CA

Laboratory: MAL
Turnaround Time: (Normal) / ~~24 Hour~~ / ~~Rush~~

Sample Date: 6/22/15

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
1	COB 1503 01A	EXTERIOR TEXTURED LIGHT ORANGE PAINT ON CONCRETE / FRONT ELEVATION (SOUTH ELEVATION) GROUND FLR = RIGHT	PLM ASBESTOS
2	01B	west elevation ground floor left	
3	01C	sky light north center elev.	
4	01D	east elevation outdoor, 2nd floor	
5	01E	west elevation 2nd floor window	
6	01F	north elevation parapet	
7	01G	eastside 4th floor window outside	
8	02A	window puddy (1 SAMP) / south elevation fourth floor, center	
9	02B	south side, center 1st floor	
10	02C	sky light, northside (center) elevation 2nd floor	

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 6/22/15 11[illegible]	Date received: 6/22/15 1:16PM

Sent via Federal Express Air Bill: Hand delivered

☐ No Tab
☐ WTE

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

207373

Project No. COB 1503

Job Site: <Same>

Location:

Laboratory: MAL

Turnaround Time: Normal / 24 Hour / ~~Rush~~

Sample Date: 6/22/15

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
11	COB1503 02D	window putty / outside ~~window~~ 2nd floor northside patch	PLM Asbestos
12	02E	/ east elevation 2nd floor	
13	02F	/ sky light window 2nd floor northside elevation	
14	02G	/ west elevation, 2nd floor window	
15	02H	/ west elevation, patch 2nd floor	
16	02I	/ east elevation, 3rd floor window	
17	02J	/ south elevation, 3rd floor (right)	
18	02K	/ south elevation window ~~west~~ left 3rd floor	
19	02L	/ westside 3rd floor elevation window	
20	02M	/ westside window elevation 4th floor	

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 6/22/15 1/16	Date received: 6/22/15 1:16pm

Sent via Federal Express Air Bill:

~~Hand delivered~~

☐ No Tab
☐ WTE

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

207373

Project No. COB 1503

Job Site: (SAME)

Laboratory: MAL

Location:

Turnaround Time: Normal / ~~24 Hour / Rush~~

Sample Date: 22.6.15

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
	COB — 1503		
21	021	window putty / 4th floor, northside	PLM Asbestos
22	020	/ 4th floor, eastside window	
23	03A	interior plaster / fourth floor, south center window ~~closet (/) window (no night lock)~~	
24	03B	/ fourth floor center closet of electrical	
25	03C	/ 2nd floor westside mechanical room	
26	03d	/ plaster wall in electric room 3rd floor (room 303)	outer wall
27	03E	/ inner wall, room 303 electric room	
28	03F	/ mech. room 322 the wall	
29	036	/ womens bathroom wall fourth floor	
30	04A	interior debris / Basement, ster. room A009	

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 6/22/15	Date received: 6/22/15 1:16 pm

Sent via Federal Express Air Bill:

Hand delivered

☐ No Tab
☐ WTE

A

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

20737

Project No. COB 1503

Job Site: <SAME>

Location:

Laboratory: MAL

Turnaround Time: Normal / 24 Hour / Rush

Sample Date: 6/22/15

Sampler: Paul M. Spillane, CIH, CAC

Sample No.	Description/ Location	Analysis
COB 1503 05A	Skylight putty / skylight eastside ground. outdoor	PLM Asbestos
05B	/ Skylight northside outdoor ground	
05C	/ skylight northside outdoor ground. 2nd floor	

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 6/22/15	Date received: 6/22/15

Sent via Federal Express Air Bill:

Hand delivered

☐ No Tab
☐ WTE

207373

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

Project No. CoB 1503

Job Site: <Jane>

Laboratory: MAL

Location:

Turnaround Time: (Normal) / ~~24 Hour~~ / ~~Rush~~

Sample Date: 6/22/15

Sampler: Paul M. Spillane, CIH, CAC

	Sample No.	Description/ Location	Analysis
34	CoB 1503 06A	Duct seam, tape & glue / west elevation 2nd floor duct	PLM Asbestos
35	06B	/ west elevation 2nd floor duct	
36	06C	/ west elevation 2nd floor duct	
37	07A	9x9" VFT BRWN w/ BLK MASTIC / westside electrical room, 303, 3rd floor	
38	07B	/ ~~Yellow~~ floortile under carpet, southside 3rd floor	
39	07C	/ carpet, 4th floor southeast side 9x9	
40	~~30~~ 08A	Yellow VSF / mechanicle room 322 linellium floor 3rd floor	
41	09A	Drywall taping mud / Janitors room, fourth floor in the wall	
42	09B	/ mech room, eastside 4th floor	
43	09C	/ 1st floor southside center wall	

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 6/23/15	Date received: 6/22/15 1:16 PM

Sent via Federal Express Air Bill: ~~Hand delivered~~

☐ No Tab
☐ WTE

Appendix B

Floor Plans

1947 Center Street
Berkeley, CA

June 22, 2015

Acumen Project No. COB 1503

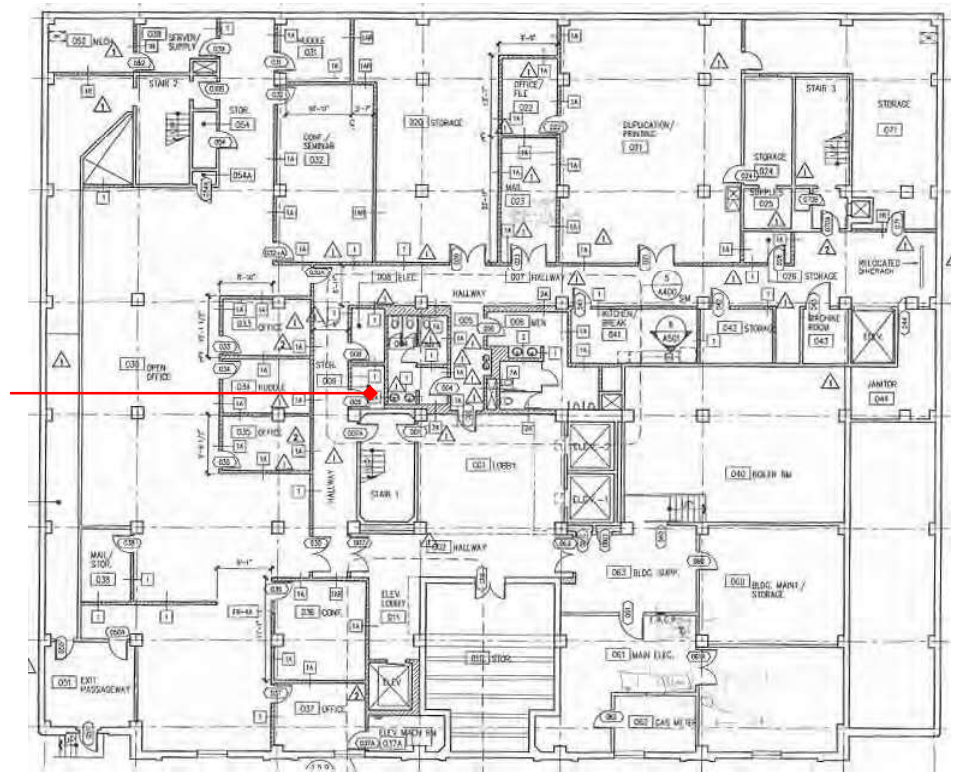
Prepared For:

City of Berkeley
Public Works Department
1326 Allston Way, Berkeley
Berkeley, CA 94702

Figure 1

Sampling Locations
1947 Center Street – Basement
Berkeley, CA

June 22, 2015

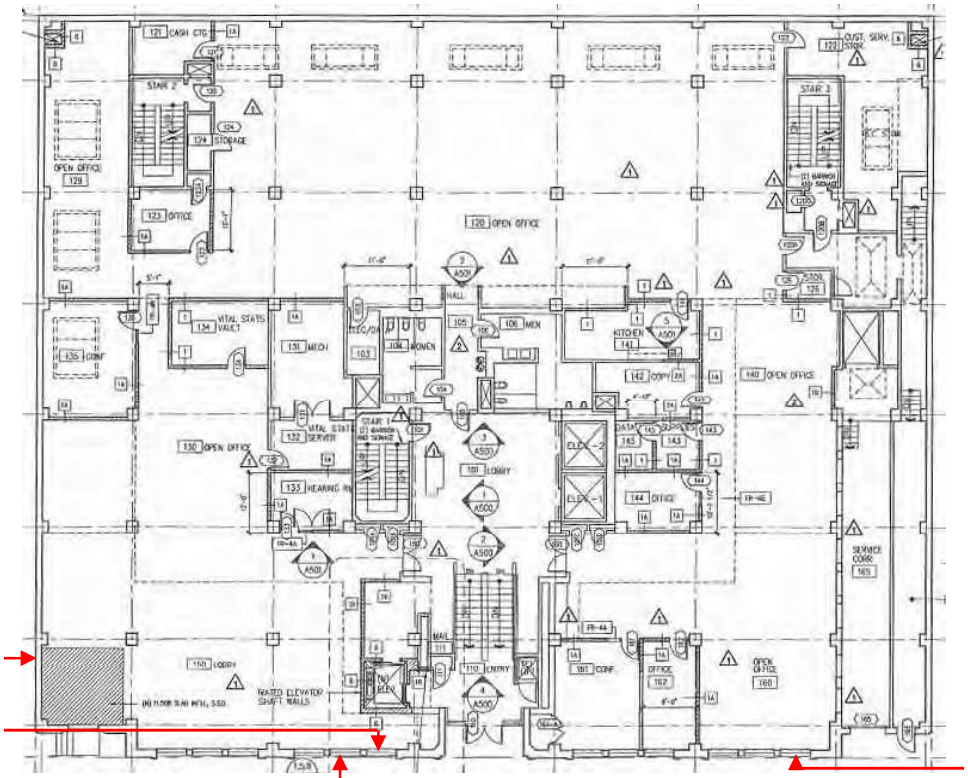


Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing

Figure 2

Sampling Locations
1947 Center Street – 1st Floor
Berkeley, CA

June 22, 2015



COB1503-01B
Exterior Textured Light Orange Paint on Concrete

COB1503-09C
Drywall Taping Mud

COB1503-02B
Window Putty

COB1503-01A
Exterior Textured Light Orange Paint on Concrete

Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing

Figure 3

Sampling Locations
1947 Center Street – 2nd Floor
Berkeley, CA

June 22, 2015

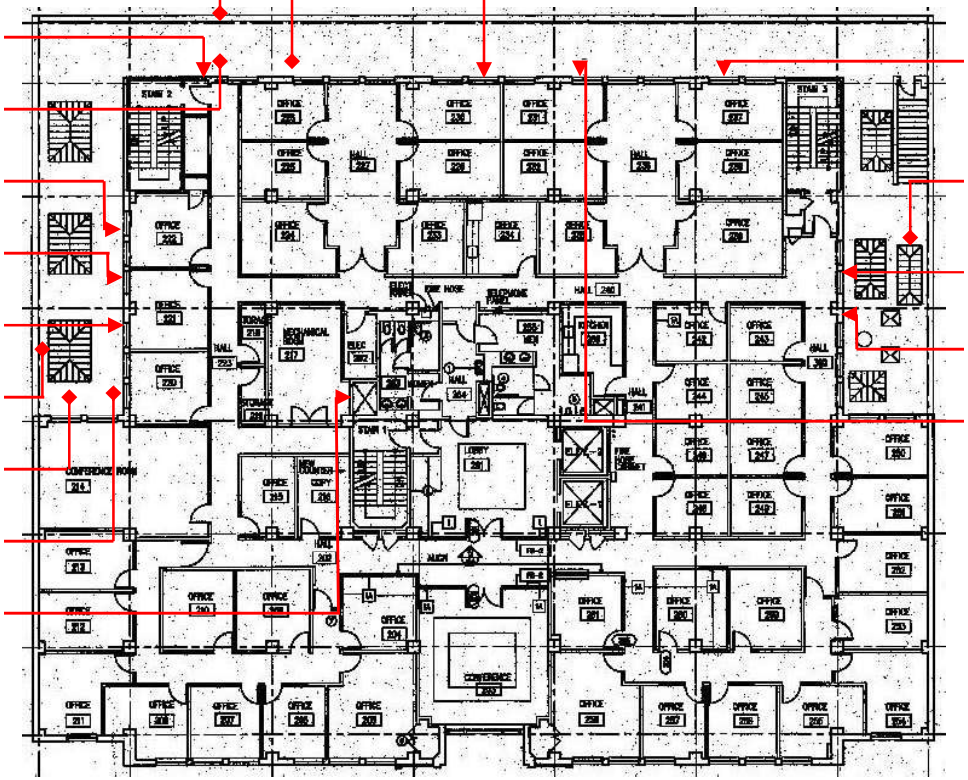
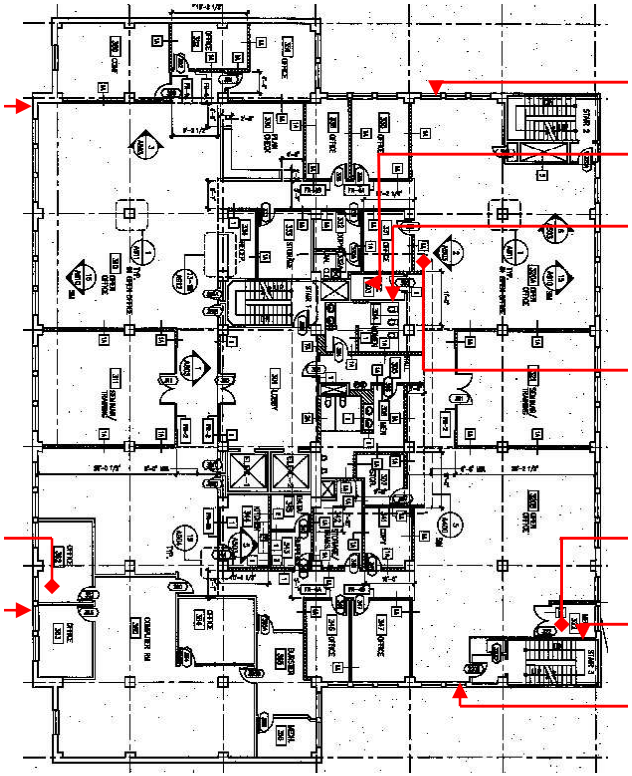


Figure 4

Sampling Locations
1947 Center Street – 3rd Floor
Berkeley, CA

June 22, 2015



COB1503-02K
Window Putty

COB1503-02L
Window Putty

COB1503-03E
Interior Plaster Center Window

COB1503-03D
Interior Plaster Center Window

COB1503-07A
9x9" Brown Vinyl Floor Tiles with Black Mastic

COB1503-07B
9x9" Brown Vinyl Floor Tiles with Black Mastic

COB1503-08A
Yellow Vinyl Sheet Flooring

COB1503-02J
Window Putty

COB1503-03F
Interior Plaster Center Window

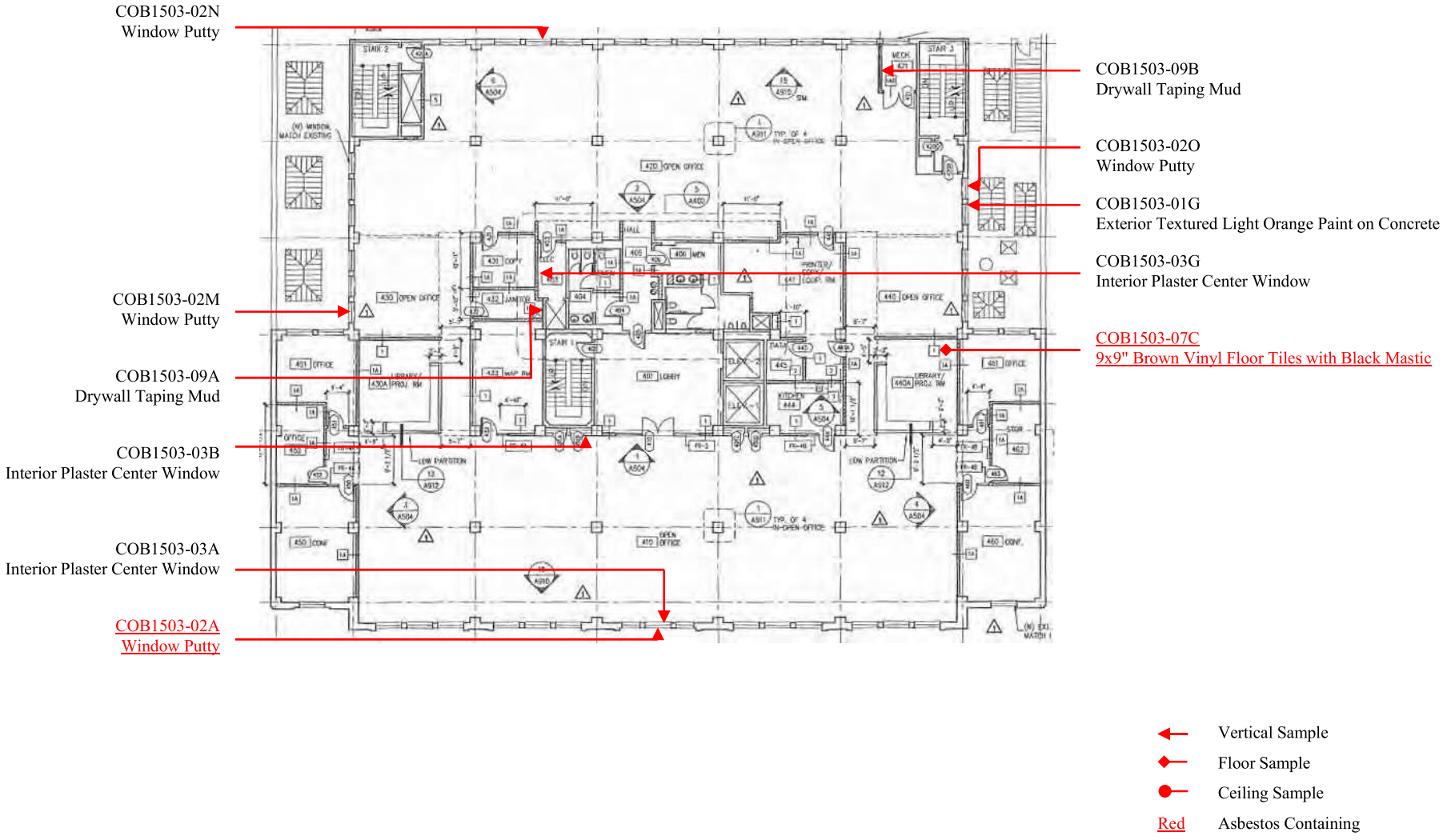
COB1503-02I
Window Putty

Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing

Figure 5

Sampling Locations
1947 Center Street – 4th Floor
Berkeley, CA

June 22, 2015



Appendix C

Photographs

1947 Center Street
Berkeley, CA

June 22, 2015

Acumen Project No. COB 1503

Prepared For:

City of Berkeley
Public Works Department
1326 Allston Way, Berkeley
Berkeley, CA 94702

Photo 1

Exterior textured light orange paint on concrete, Front elevation (south elevation) Ground floor – right side:
Paint (Violet /Tan): 2% Chrysotile Asbestos, Texture Coating (Gray / Beige): 4% Chrysotile Asbestos
Note that asbestos was detected in only one (3) of the seven (7) exterior paint locations sampled.

Photo 2

Window Putty: <1% to 2% Chrysotile Asbestos.
Note that asbestos was detected in three (3) of the fifteen (15) window putties sampled.

Photo 3
Skylight Caulking: 5% to 6% Chrysotile Asbestos

Photo 4
9x9” vinyl floor tile and mastic: 3% to 15% Chrysotile Asbestos, mastic is inseparable

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

February 9, 2016

Mr. Paul Kaushal
Public Works Department
City of Berkeley
1326 Allston Way
Berkeley, CA 94702

RE: Limited Lead-Based Paint Testing For Construction
1947 Center Street
Berkeley, CA 94112

Dear Paul:

The purpose of this letter is to report and discuss the findings of lead-paint sampling Acumen Industrial Hygiene, Inc. (Acumen) conducted at the above referenced building in Berkeley, California. The objectives of this investigation were as follows:

- To identify "lead content" of surfaces coatings (i.e. paint) for areas that are currently part of the remodeling scope at the building. This sampling is for construction purposes for compliance with Cal-OSHA lead related construction (8CCR1532.1) and to assist California Department of Toxic Substances Control (DTSC) waste profiling.
- This testing does not meet all purposes of a "lead inspection" as defined by California Department of Public Health (CDPH) regulations pertaining to public or residential buildings (17CCR35001 et seq). Based on the age of the building, surface coatings not tested should be presumed lead-based paint. Per CDPH reporting requirements, a form 8552 is attached as Appendix C.

Mr. Tam Pham, CAC and Mr. Paul M. Spillane, CIH, CDPH accredited inspector assessor, conducted this testing on February 4-5, 2016. This inspection was limited to areas of the building planned for remodeling.

Samples collected during the investigation were submitted to Micro Analytical Laboratories (Emeryville, CA). This laboratory is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP) for selected lead test methods. This laboratory also holds certification from the American Industrial Hygiene Association (AIHA). The lead paint samples were analyzed by flame atomic absorption.

Results:

The sample results are presented as Table 1. The laboratory reports are attached as Appendix A and a sample location floor plan, is attached as Appendix B.

Lead-Based Paint (>5,000 parts per million):

- Exterior peach paint on metal window components (Sample COB1505-020516-Pb02): 18,000 parts per million (ppm) lead. Sample collected from peach paint on metal sash at 4th Floor south-west corner conference room.

Lead-Containing Paint (<5,000 ppm lead):

- Interior cream paint on metal window components (Sample COB1505-020516-04A): 180 parts per million (ppm) lead. Sampled at 4th Floor south-west corner conference room.
- Multi-layered (white/green) paints on plaster (perimeter) walls (Sample COB1505-020516-Pb01): 520 parts per million (ppm) lead. Sampled at 4th Floor south-west corner conference room.

Non-Lead-Containing Paint (<detection limit):

- White paint on drywall (Sample COB1505-020416-01Pb): <80 ppm. Sampled at 3rd Floor Katherine's office.
- White paint on drywall (Sample COB1505-020416-01Pb): <71 ppm. Sampled at 3rd Floor west hallway.
- White paint on drywall (Sample COB1505-020416-01Pb): <65 ppm. Sampled at 1st Floor Room 146.
- White paint on drywall (Sample COB1505-020416-01Pb): <74 ppm. Sampled at 1st Floor Room 146.
- White paint on drywall (Sample COB1505-020416-01Pb): <81 ppm. Sampled at 4th Floor east corner office.
- Light Cream paint on drywall (Sample COB1505-020416-01Pb): <80 ppm. Sampled at 4th Floor east hall.

Discussion:

Paints that contain more than 5,000 ppm lead are classified as lead based paint (LBP), as is the case with the exterior peach paint on metal windows and is regulated under several regulations including the California CDPH regulations. The presence of lead-containing paints (on interior plaster walls and window components) also has several consequences pertaining to the Cal-DTSC waste regulations and Cal-OSHA regulations for construction work.

There are specific prohibitions of burning LBP, scraping, sanding or grinding of lead-based paint without a containment or tools fitted with HEPA filters. DTSC regulations require that leaded wastes be properly classified and segregated before disposal.

Cal-OSHA regulations would require a demolition contractor to comply with the requirements of Cal-OSHA's lead in construction standard (8CCR1532.1). According to these regulations, a contractor would need to develop and implement a lead compliance plan, conduct employee exposure assessment to determine appropriate protective measures (that would include the use of respiratory protection unless air monitoring results show it is not needed), provide employee training on the hazards of lead related work, provide adequate hand washing facilities and ensure their use, and possibly provide medical surveillance exams (including blood lead testing). The written compliance plan would essentially acknowledge the

presence of lead and would describe procedures to minimize airborne lead exposures (i.e. use dust control, clean up debris daily with a HEPA vacuum, and use good personal hygiene procedures, etc.). These issues are commonplace since these Cal-OSHA rules have been in effect since 1992 and since the lead containing paints are commonly found.

Because this is a public building, the US EPA requires the contractor be lead-trained under Renovation, Repair and Painting (RRP) rule. This regulation requires containment and clearance protocols. The CDPH also has certain standards pertaining to lead, which should be required by project specification.

Please feel free to contact us if you have any questions or comments regarding this report. Thank you for the opportunity to be of service.

Sincerely,
Acumen Industrial Hygiene, Inc.

Paul M. Spillane, CIH,
CDPH Accredited Lead-Based Paint Inspector/Assessor #3920, Exp. 08/21/16

Table 1: **Summary of Lead Paint Sample Results**

Appendix A: **Laboratory Reports**
Appendix B: **Sample Location Floor plan**
Appendix C: **CDPH Form 8552**

Appendix A

Laboratory Reports

Limited Lead-Based Paint Testing For Construction
1947 Center Street

February 4-5, 2016

Acumen Project No. COB 1505

Prepared For:

City of Berkeley
1326 Allston Way
Berkeley, CA 94702

Table 1

Summary of Lead Paint Sample Results
1947 Center Street
Berkeley, CA

February 4 – 5, 2016

Location	Material	Result [1]	Sample No.
3rd Floor – Katherine's Office	White Paint on Drywall	< 80	COB1505-020416-01PB
3rd Floor – West Hallway	Light Cream Paint on Drywall	< 71	COB1505-020416-02PB
1st Floor – Room 146	White Paint on Plaster Wall	< 65	COB1505-020416-03PB
1st Floor – Room 146	White Paint on Drywall	< 74	COB1505-020416-04PB
4th Floor – East Corner Office	White Paint on Drywall	< 81	COB1505-020416-05PB
4th Floor – East Hallway	Light Cream Paint on Drywall	< 80	COB1505-020416-06PB
4th Floor – South Corner Conference Room	White and Green Paint on Plaster Wall	520	COB1505-020516-PB01
4th Floor – South Corner Conference Room	Exterior Peach Paint on Window Frame	18,000	COB1505-020516-PB02
4th Floor – South Corner Conference Room	Interior Gray Paint on Window Sash	180	COB1505-020516-04A

Footnote

1. Samples are analyzed by Flame Atomic Absorption Spectrometry (AAS). U.S. EPA SW-846 Method 7000B is used for the instrumental analysis. Nitric acid and hydrogen peroxide digestion procedures are based on ASTM E-1645. Results reported in milligram per kilogram (mg/kg) or parts per million (ppm).

Appendix B

Sample Location Floor Plan

Limited Lead-Based Paint Testing For Construction
1947 Center Street

February 4-5, 2016

Acumen Project No. COB 1505

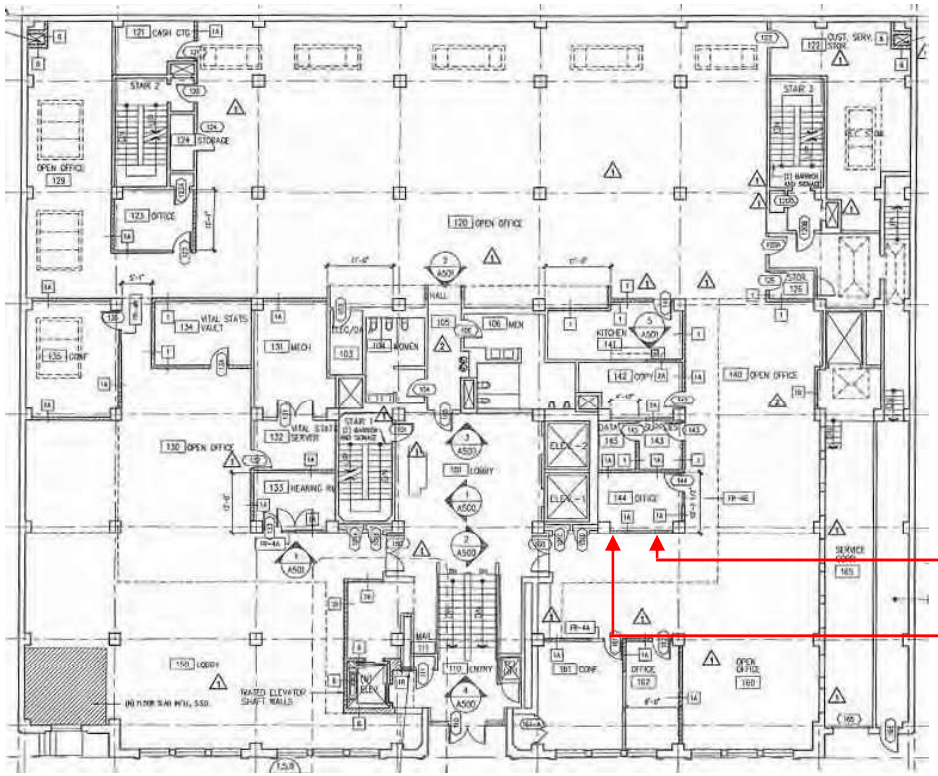
Prepared For:

City of Berkeley
1326 Allston Way
Berkeley, CA 94702

Figure 1

Sampling Locations
1947 Center Street – 1st Floor
Berkeley, CA

February 4 – 5, 2016

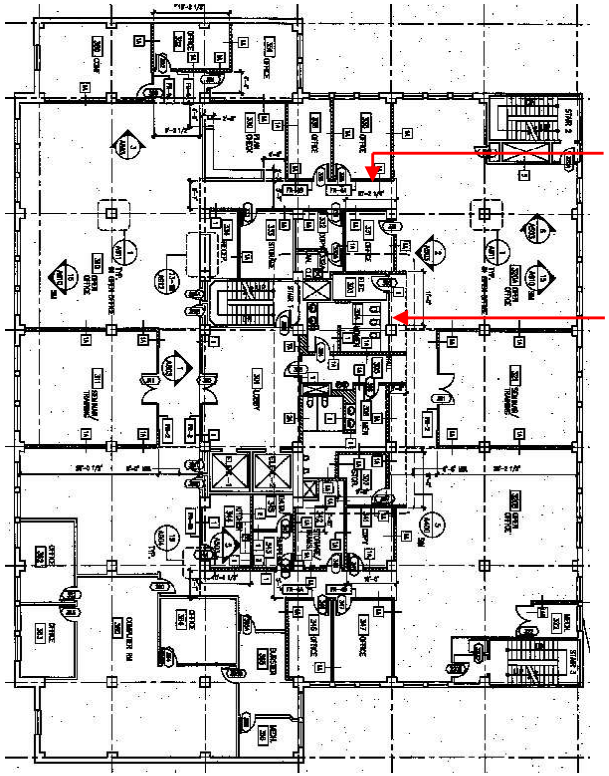


Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing
Blue Lead Sample

Figure 2

Sampling Locations
1947 Center Street – 3rd Floor
Berkeley, CA

February 4 – 5, 2016



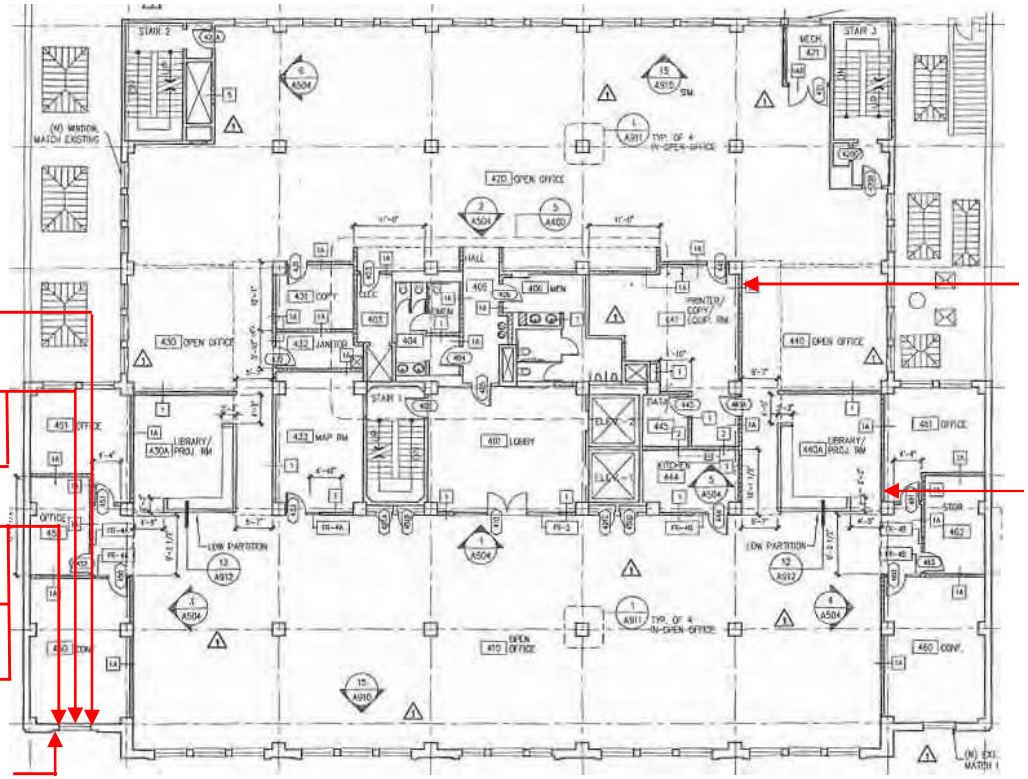
←	Vertical Sample
◆←	Floor Sample
●—	Ceiling Sample
Red	Asbestos Containing
Blue	Lead Sample

Figure 3

Sampling Locations

1947 Center Street – 4th Floor
Berkeley, CA

February 4 – 5, 2016



COB1505-020516-03A
Exterior White Caulking

COB1505-020516-04A
Interior Gray Paint on Window Sash

COB1505-020516-04A
Interior Gray Paint on Window Sash

COB1505-020516-02A
Plaster Wall

COB1505-020516-PB01
White and Green Paint on Plaster Wall

COB1505-020516-01A
Exterior White and Gray Mortar

COB1505-020516-PB02
Exterior Peach Paint on Window Frame

COB1505-020416-06PB
Light Cream Paint on Drywall

COB1505-020416-05PB
White Paint on Drywall

←	Vertical Sample
◆←	Floor Sample
●—	Ceiling Sample
Red	Asbestos Containing
Blue	Lead Sample

Appendix C

CDPH Report

Limited Lead-Based Paint Testing For Construction
1947 Center Street

February 4-5, 2016

Acumen Project No. COB 1505

Prepared For:

City of Berkeley
1326 Allston Way
Berkeley, CA 94702

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation 2/4/16 to 2/5/16

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

☐ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☑ Other (specify) Limited Bulk Sampling

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
1947 Center Street	Berkley	Alameda	94702

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

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

Name	Telephone number
City of Berkeley	510.981.6396

Address [number, street, apartment (if applicable)]	City	State	Zip Code
1947 Center Street, 4th Floor	Berkeley	CA	94704

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

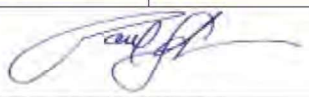
☐ No lead-based paint detected ☑ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

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

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Paul Spillane	415-242-6060

Address [number, street, apartment (if applicable)]	City	State	Zip Code
1032 Irving Stree #922	San Francisco	CA	94122

CDPH certification number	Signature	Date
I/A, PM #3920		2-9-16

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

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

August 8, 2022

Uriel Gonzalez, Junior Engineer
Public Works Department
1947 Center Street, 5th Floor
Berkeley, CA 94704

RE: Asbestos Containing Materials Inspection for Carpet Replacement Project
1947 Center Street, 6th Floor (Berkeley, CA)
Acumen Project No.: COB 2231

Dear Uriel:

The purpose of this letter is to report and discuss the findings of an asbestos containing materials (ACM) inspection Acumen Industrial Hygiene, Inc. (Acumen) conducted at the sixth floor of 1947 Center Street in Berkeley, California for the upcoming carpet replacement project. The objectives of this investigation were as follows:

- To identify regulated asbestos containing materials (RACMs), defined by Bay Area Air Quality Management District (BAAQMD). RACMs and Category I and II materials that will be rendered friable need to be removed if they are to be impacted by building renovation and before the building can be demolished.
- To identify asbestos containing materials (ACM) that would require compliance with California Department of Industrial Relations – Division of Occupational Safety and Health (Cal/OSHA) asbestos regulations and waste disposal. ACM is a manufactured construction material with an asbestos content that is greater than 1% by weight.
- To identify lead-containing materials (LCMs) primarily in ceramic tiles that would need to be removed before demolition for compliance with Cal/OSHA and DTSC regulations. The evaluation was not intended to be either a lead inspection or a lead hazard evaluation as defined by California Department of Public Health (17CCR35001 et seq).

Mr. Paul M. Spillane, CIH, a registered California Asbestos Consultant (CAC) and Lead Inspector/Assessor (I/A), conducted this investigation on July 14, 2022. This inspection was limited to accessible areas and was focused on the carpet replacement project. Wall cavities, ceiling plenum or other interstitial spaces were not accessed or surveyed.

Summary of Investigation

Where suspect asbestos flooring materials were noted, Acumen collected bulk samples and submitted them with our chain of custody forms to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for asbestos. This laboratory also holds certification from the American Industrial Hygiene Association (AIHA).

The suspect material samples collected were analyzed by polarized light microscopy (PLM). The laboratory reports are shown in Appendix A. This analytical method identifies the type(s) of asbestos present in the sample and its corresponding percent concentration(s). The reliable limit of quantification of this method is 1% asbestos.

Bulk ceramic tile sample was also collected and analyzed for total lead content by Total Threshold Limit Concentration (TTLC) method, U.S. Environmental Protection Agency (EPA) Method SW-846. Lead sample was submitted to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the AIHA under the Environmental Lead Laboratory Accreditation Program (ELLAP) for selected lead analysis methods. The lead laboratory results are also shown in Appendix A. When a result is noted to be less than (<) on the lead sample report, it should be interpreted as meaning below analytical detection limit.

Findings and Discussion

The ACM found during this investigation include the following materials:

- 9x9-inch brown vinyl floor tile contains 12% asbestos (Photo 1). There are approximately 14,000 square feet of this Category I non-friable material present (Samples COB2231-02A and COB2231-02B). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.
- 12x12-inch orange vinyl floor tile contains 6% asbestos (Photo 2). There is an unknown amount of this Category I non-friable material present (Sample COB2231-03A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.
- Mastic under 12x12-inch black/white vinyl floor tile contains 4% asbestos (Photo 3). There are approximately 100 square feet of this Category I non-friable material present (Sample COB2231-05A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.

If impacted by the upcoming renovations, these materials must be handled by Cal/OSHA asbestos registered contractor. The contractor must also be licensed as an asbestos abatement contractor by the California State Licensing Board. In some cases, it may be possible to leave the asbestos flooring in place, although, they would need to be removed prior to any impact by renovations.

The Bay Area Air Quality Management District (BAAQMD) requires notification and RACM procedures if mechanical methods are used to remove asbestos flooring (more than 1% asbestos) including the use of mechanical floor buffers. The removal of RACM requires 10-day advance notification to BAAQMD, if more than 100 square feet or 100 linear feet are removed. Even if less than 100 square feet/100 linear feet are removed, the BAAQMD has rules regarding methods of removal. Based on past experience with flooring abatement at 1947 Center Street, the concrete subflooring is porous and susceptible to having mastic solvent seep down into the floor below. The abatement contractor should be aware of this condition and adjust their work method accordingly.

Lead containing ceramic tile do not contain more than 50 ppm of lead so the tile is not considered regulated wastes. Because there is some lead present (12 ppm), Cal/OSHA regulations would apply to the demolition work. The Cal/OSHA lead in construction standard (8CCR1532.1) requires a contractor whose work involves disturbing lead-containing materials to develop and implement a lead compliance plan. The written lead compliance plan would essentially acknowledge the presence of lead and would describe procedures to minimize airborne lead exposures (e.g., use of dust control, clean up debris daily with a HEPA vacuum, and use good personal hygiene procedures, etc.) consistent with either assumed or known airborne lead exposures. Additionally, contractor is required to conduct employee exposure assessment to determine appropriate protective measures, including medical surveillance and personal hygiene facilities, and to provide employee training on the hazards of lead related work.

Recommendations

The findings of this investigation warrant the following actions:

1. Notify potential building maintenance personal, lessees and contractors of the presence of ACMs at the building. Disturbance of ACMs require special training and Cal/OSHA procedures.
2. At a minimum the carpets and tack-strips must be removed by a Cal/OSHA registered and State licensed asbestos contractor and any loose floor tiles must be abated.
3. Third party perimeter air monitoring should be conducted to limit the City's liability when doing this work. Although there is no regulatory requirement for it, it would be advisable to develop either a work plan or specification for the handling of asbestos and to protect over occupants of the building.
4. Once carpets are removed, asbestos clearance testing is recommended prior to releasing the contractor from this work. If the asbestos floors are not abated, the carpet installer will also be required to have asbestos training for Class IV work on an annual basis. This is a 2-hour awareness class that informs the carpet installers not to remove or damage the asbestos flooring.
5. The presence of asbestos (and presumed leaded paints) should be managed under an Operations and Management (O&M) program. The O&M program should establish written policies and procedures for work practices as required by EPA and California laws. The O&M program should establish policy for notifying employees per Health and Safety Code Section 25915-25919.7. Under the Connolly Bill (Health and Safety Code Section 25915-25919.7) the owner (employer) is required to annually provide in writing to each individual employee, the presence and location of asbestos-containing materials in the building.

Conclusions

This limited investigation discovered asbestos flooring that will require special work practices and waste disposal considerations, if disturbed. This survey was limited to flooring materials and did not include the upgraded restrooms, walls, ceilings, insulation or other suspect materials. Ceramic tile was determined to contain lead, but it is considered construction debris because it is below 50 ppm. Disturbing leaded materials will need to follow lead-construction work practices per Cal/OSHA regulations (8CCR1532.1).

At a minimum the carpet should be removed by a Cal/OSHA asbestos registered contractor working under a third-party specification. This work should be monitored by a Certified Asbestos Consultant and clearance testing should be conducted at the end of the work. Suitable project design could allow certain ACMs to remain in place, although they may need to be removed if damaged.

Please feel free to contact us if you have any questions or comments regarding this report. Thank you for the opportunity to be of service.

Sincerely,
Acumen Industrial Hygiene, Inc.

Paul M. Spillane, CIH
Certified Asbestos Consultant: 10-4630 (Exp 6-16-23)
CDPH Lead Accredited #LRC-00004053
Principal Industrial Hygienist

Limitations

Reasonable effort was made by Acumen personnel to locate and sample suspect materials. However, for any facility or building, the existence of unique or concealed ACM/LBP/PCBs, mold or other hazardous materials and debris is a possibility. Acumen does not warrant, guarantee, or profess to have the ability to locate or identify all ACM or other hazardous materials at this facility. The intent of this report is for use in planning and for demolition purposes. All quantities of materials identified in this report should be field verified by contractors prior to submitting bids to perform abatement work. Additional confirmatory sampling and detailed quantification may be required if the renovation work uncovers additional suspect materials. The report is not intended as a CDPH or HUD defined “lead hazard evaluation” or “lead inspection”.

Acumen provided these services consistent with the level and skill ordinarily exercised by members of the profession currently providing similar services under similar circumstances at the time the services were provided. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the named client and their designees. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of certain other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user.

As with all such assessments, the results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times. Additionally, this assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of all conditions within the facility. The information presented in this report is intended to be used as a guide to evaluate the need for materials removal, further investigation or the need for modifications to the processes or procedures surveyed.

The client should recognize that all testing and remediation methods have reliability limitations, no method or number of sampling locations can guarantee that a condition will be discovered within the performance of the services as authorized by the client. Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during Acumen’s inspection of the site.

Table 1

Asbestos Containing Material
1947 Center Street, 6th Floor
Berkeley, CA 94704

July 14, 2022

Location	Material	Results[1]	BAAQMD[2]	EQ[3]	Sample No.
6th Floor - 608	9x9" Brown Vinyl Floor Tile	Vinyl Floor Tile: 12% CH Black Mastic: ND	Cat I NF	14,000 SF	COB2231-02A
6th Floor - 625	9x9" Brown Vinyl Floor Tile	Vinyl Floor Tile: 6% CH Black Mastic: ND Yellow Mastic: ND	Cat I NF	See Above	COB2231-02B
6th Floor - 632	12x12" Orange Vinyl Floor Tile	Vinyl Floor Tile: 6% CH Black Mastic: ND	Cat I NF	Unknown TBD	COB2231-03A
6th Floor - Closet	12x12" White Vinyl Floor Tile	Vinyl Floor Tile: ND Black/Yellow Mastic: 4% CH	Cat I NF	100 SF	COB2231-05A

Footnotes

1. Results report percent (%) asbestos as determined by polarized light microscopy (PLM). Samples that are marked Point Count were analyzed by EPA-600/R93-116 (1993) method as determined by PLM 400 Point Count method and are reported as percentage (%) asbestos. CH = Chrysotile asbestos; AC = Actinolite asbestos; TR = Tremolite asbestos; AM = Amosite asbestos; CR = Crocidolite; PP = sample was not analyzed because of Prior Positive; Trace = levels of asbestos is less than 1%; ND = no asbestos detected; and Assumed = material to contain asbestos unless proven otherwise.
2. BAAQMD indicates classification into friable as Regulated Asbestos Containing Material (RACM) or Category I (Cat I) or Category II (Cat II) Non-Friable. Depending on methods of removal Category I or II non-friable ACMs could become rendered into friable/RACM. BAAQMD classifications are non-applicable (N/A) for materials with results that are ND for asbestos.
3. EQ means estimated quantity either in square feet (SF) linear feet (LF), or each unit (EA). Estimated quantities are non-applicable (N/A) for materials with results that are ND for asbestos. Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. TBD = To Be Determined.

Table 2

Non-Asbestos Containing Materials
1947 Center Street, 6th Floor
Berkeley, CA 94704

July 14, 2022

Location	Material	Results[1]	Sample No.
6th Floor - Lobby	6x6" Ceramic Floor Tile	Ceramic Floor Tile: ND Adhesive: ND	COB2231-01A
6th Floor - Lobby	6x6" Ceramic Floor Tile	Ceramic Floor Tile: ND	COB2231-01B
6th Floor - Breakroom	12x12" Black Vinyl Floor Tile	Vinyl Floor Tile: ND Yellow Adhesive: ND	COB2231-04A

Footnote

1. Samples were analyzed by polarized light microscopy (PLM) and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

Table 3

Summary of Lead Material Sample Results
1947 Center Street, 6th Floor
Berkeley, CA 94704

July 14, 2022

Location	Material	Result[1]	EQ[2]	Sample No.
6th Floor - Lobby	6x6" Maroon Ceramic Floor Tile	12	N/A	COB2231-PB01

Footnote

1. Samples are analyzed by Total Threshold Limit Concentration (TTLC) in accordance with EPA Methods 3050B for Acid Digestion (SW 846, 3rd edition, 2007) and 7420 for Analysis (SW-846, 3rd edition, 2007). Results reported in milligram per kilogram (mg/kg) or parts per million (ppm). The "<" sign means below analytical detection limit.
2. EQ means estimated quantity either in square feet (SF). Ceramic tile contains more than 1,000 ppm lead would be classified as California hazardous wastes. If ceramic tile or other material contains greater than 50 ppm lead but less than 1,000 ppm lead, then it should also be removed and tested for leachable lead per the STLC/TCLP methods, prior to demolition or renovation. Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. N/A = Removal is not required.

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

WWW.ACUMEN-IH.COM

Appendix A

Laboratory Reports

1947 Center Street, 6th Floor
Berkeley, CA 94704

August 2022

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECTNO. COB 2231
1947 CENTER
BERKELEY, CA

Micro Log In **293514**
Total Samples 7
Date Sampled 07/14/2022
Date Received 07/14/2022
Date Analyzed 07/14/2022

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB2231-01A Micro #: 293514-01 Analyst: GDS 6 X 6 CFT / 6TH FLOOR / LOBBY	CFT: ND ADHESIVE: ND	NFM: ROCK FRAGMENTS MISCELLANEOUS PARTICLES
Client #: COB2231-01B Micro #: 293514-02 Analyst: GDS 6 X 6 CFT / 6TH FLOOR / LOBBY	CFT: ND	NFM: ROCK FRAGMENTS MISCELLANEOUS PARTICLES
Client #: COB2231-02A Micro #: 293514-03 Analyst: GDS 9 X 9 " BROWN VFT / 6TH FLOOR / 608	VFT: 12% CHRYSOTILE ASBESTOS MASTIC (BLACK): ND	1 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: COB2231-02B Micro #: 293514-04 Analyst: GDS 9 X 9 " BROWN VFT / 6TH FLOOR / 625	VFT: 6% CHRYSOTILE ASBESTOS MASTIC (BLACK): ND MASTIC (YELLOW): ND	2 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: COB2231-03A Micro #: 293514-05 Analyst: GDS 12 X 12 " ORANGE VFT / 6TH FLOOR / 632	VFT: 6% CHRYSOTILE ASBESTOS MASTIC (BLACK): ND	2 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.

Technical Supervisor: Mark Olivares 7/16/2022
For Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos: however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECTNO. COB 2231
1947 CENTER
BERKELEY, CA

Micro Log In **293514**
Total Samples 7
Date Sampled 07/14/2022
Date Received 07/14/2022
Date Analyzed 07/14/2022

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB2231-04A Micro #: 293514-06 Analyst: GDS MO 12 X 12 " BLACK VFT / 6TH FLOOR / BREAK ROOM	VFT: ND ADHESIVE (YELLOW): ND	2 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: COB2231-05A Micro #: 293514-07 Analyst: GDS 12 X 12 " WHITE VFT / 6TH FLOOR / CLOSET	VFT: ND MASTIC (BLACK/YELLOW): 4% CHRYSOTILE ASBESTOS	3 % CELLULOSE NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.

Technical Supervisor: Mark Olivares 7/16/2022
For Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

(PLM) 293514

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

Project No. COB 2231

Job Site: 1947 Center
Location: Berkeley CA

Laboratory: MAL

Turnaround Time: (Normal) / 24 Hour / Rush

Sample Date: 7/14/22

Sampler: Paul M. Spillane, CIH, CAC

Sample No.	Description/ Location	Analysis
COB 2231 01A	6x6 CFT / 6TH FLR / LOBBY	PLM ASBESTOS
01B	/ / / / /	
02A	9x9" BROWN VFT / / 608	
02B	/ / / / / 625	
03A	12x12" ORANGE VFT / / 632	
04A	12x12" BLACK VFT / / BREAK ROOM	
05A	12x12" WHITE VFT / / CLOSET	
COB 2231 PB01	6x6" CFT (MAROON) / 6TH / LOBBY	LEAD TTLC

1 2 3 4 5 6 7

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 7/14/22 11 21 AM	Date received: 7/14/22 @ 1124 AM

Sent via Federal Express Air Bill:

Hand delivered

Page 1 of 1

Tab / No Tab
WTE

MICRO ANALYTICAL LABORATORIES, INC.

EPA SW-846 LEAD-TTLC

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:

PROJECTNO. COB 2231
1947 CENTER
BERKELEY, CA

Micro Log In 293515
Total Samples 1
Date Sampled 07/14/2022
Date Received 07/14/2022
Date Analyzed 07/14/2022

Sample ID	Lead Concentration, ppm	RDL, ppm	Comments
Client COB2231-PB01 Micro 293515-01 6 X 6 " CFT (MAROON) / 6TH / LOBBY	12	9.8	

Technical Supervisor: _____ 7/14/2022
Long T. Nguyen, Chemistry Supervisor Date Reported

Analyst: RN

AIHA-LAP LLC ELLAP Accredited Laboratory, ID #101768. Samples are analyzed by Flame Atomic Absorption Spectrometry (FLAA) using SOP 23-Soil (in accordance with EPA Methods 3050B for Acid Digestion (SW 846, 3rd edition, 2007) and 7420 for Analysis (SW-846, 3rd edition, 2007)). NOTE: Water samples are analyzed by FLAA in accordance with Method 3111B (Standard Methods for the Examination of Water and Wastewater, 18th edition). Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. This report must not be reproduced except in full without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION. L = liters. RDL = Report Detection Limit. Note: mg / Kg is the same as ppm for solids, and mg/L is the same as ppm for water.

(TTLC) 293515

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING ST. - BOX 922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

Project No. COB 2231

Job Site: 1947 Center
Location: Berkeley CA

Laboratory: MAL

Turnaround Time: (Normal) / 24 Hour / Rush

Sample Date: 7/14/22

Sampler: Paul M. Spillane, CIH, CAC

Sample No.	Description/ Location	Analysis
COB 2231 01A	6X6 CFT / 6TH FLR / LOBBY	PCM ASBESTOS
01B	/ / / / /	
02A	9X9" BROWN VFT / / 608	
02B	/ / / / / 625	
03A	12X12" ORANGE VFT / / 632	
04A	12X12" BLACK VFT / / BREAK ROOM	
05A	12X12" WHITE VFT / / CLOSET	
COB 2231 PB01	6X6" CFT (MAROON) / 6TH / LOBBY	LEAD TTLC

Email to lab@acumen-ih.com

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent by:	Received by:
Date sent: 7/14/22 11 21 Am	Date received: 7/14/22 P 1124 Am

Sent via Federal Express Air Bill: Hand delivered

Page 1 of 1

Tab / No Tab
WTE

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

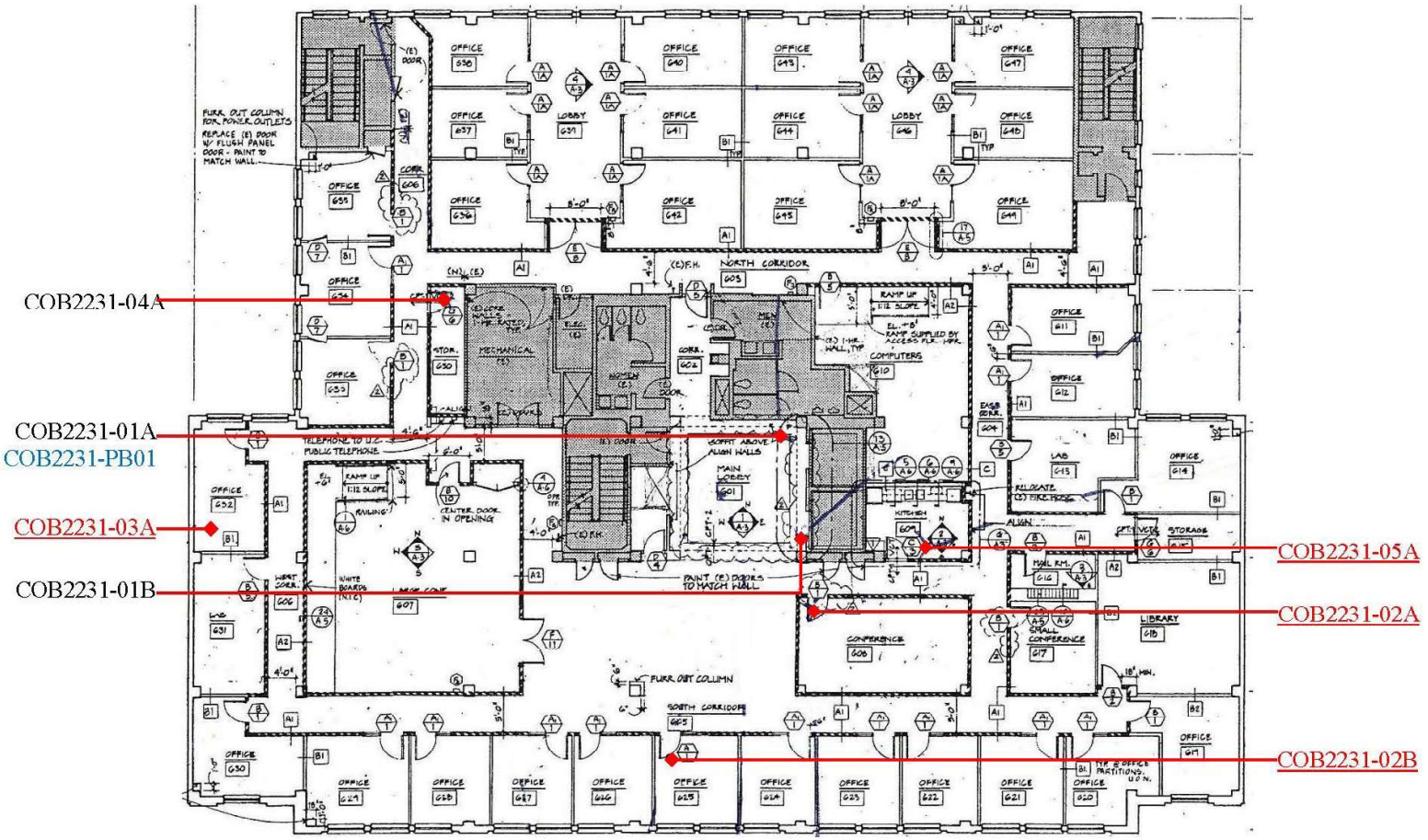
WWW.ACUMEN-IH.COM

Appendix B

Sample Location Floor Plans

1947 Center Street, 6th Floor
Berkeley, CA 94704

August 2022



A

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922

SAN FRANCISCO CA 94122

415 242 6060

WWW.ACUMEN-IH.COM

Project

1947 Center Street

Berkeley, CA

Project No.	Date
COB 2231	7/14/2022

Location

-

Level

6th Floor

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

WWW.ACUMEN-IH.COM

Appendix C

Photographs

1947 Center Street, 6th Floor
Berkeley, CA 94704

August 2022

Photo 1

9x9-inch brown vinyl floor tile (12% asbestos). There are approximately 14,000 square feet of this Category I non-friable material present (Sample COB 2231-02A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.

Photo 2

12x12-inch orange vinyl floor tile (6% asbestos, Photo 2). There is an unknown amount of this Category I non-friable material present (Sample COB 2231-03A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.

Photo 3

Mastic under 12x12-inch white vinyl floor tile (4% asbestos). There are approximately 100 square feet of this Category I non-friable material present (Sample COB 2231-05A). The removal requires Class II abatement procedures and a registered/license asbestos abatement contractor.

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

August 14, 2024

Uriel Gonzalez, Junior Engineer
Public Works Department
1947 Center Street, 5th Floor
Berkeley, CA 94704

RE: Limited Hazardous Materials Testing for Window Replacement Project
1947 Center Street, 6th Floor
Berkeley, CA
Acumen Project No.: COB 2231

Dear Uriel:

The purpose of this letter is to report and discuss the findings of an asbestos containing materials (ACM) inspection Acumen Industrial Hygiene, Inc. (Acumen) conducted at 1947 Center Street, 6th Floor in Berkeley, California for the upcoming window replacement project. The objectives of this investigation were as follows:

- To identify regulated asbestos containing materials (RACMs), defined by Bay Area Air Quality Management District (BAAQMD). RACMs and Category I and II materials that will be rendered friable need to be removed if they are to be impacted by building renovation and before the building can be demolished.
- To identify asbestos containing materials (ACM) that would require compliance with California Department of Industrial Relations – Division of Occupational Safety and Health (Cal/OSHA) asbestos regulations and waste disposal. ACM is a manufactured construction material with an asbestos content that is greater than 1% by weight.
- To identify lead-containing materials (LCMs) primarily in ceramic tiles that would need to be removed before demolition for compliance with Cal/OSHA and DTSC regulations. The evaluation was not intended to be either a lead inspection or a lead hazard evaluation as defined by California Department of Public Health (17CCR35001 et seq).
- Based on the age of the buildings (constructed or remodeled between 1950 and 1981), Acumen conducted representative sampling of "PCB priority building materials" consistent with the methods outlined in Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition required by the Bay Area Stormwater Management Agencies Association (BASMAA, 2018). We included sampling for PCBs in "priority" building materials such as window putty.

Mr. Tam Pham, a registered California Asbestos Consultant (CAC) and Lead Inspector/Assessor (I/A), conducted this investigation on July 2, 2024. This inspection was limited to accessible areas on the 6th floor and was focused on the window replacement project (Photo 1). Wall cavities or other interstitial spaces were not accessed or surveyed.

Summary of Investigation

Where suspect asbestos materials were noted, Acumen collected bulk samples and submitted them with our chain of custody forms to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for asbestos. This laboratory also holds certification from the American Industrial Hygiene Association (AIHA).

The suspect material samples collected were analyzed by polarized light microscopy (PLM). The laboratory reports are shown in Appendix A. This analytical method identifies the type(s) of asbestos present in the sample and its corresponding percentage concentration(s). The reliable limit of quantification of this method is 1% asbestos.

We also collected discrete paint samples and window putty bulk sample for lead analysis. The discrete paint samples were analyzed by flame atomic absorption (FLAA) spectrometry using Method 7420. The window putty bulk sample was analyzed for total lead content by Total Threshold Limit Concentration (TTLC) method, U.S. EPA Method SW-846. Lead sample was submitted to Micro Analytical Laboratories, Inc. (Emeryville, CA) for analysis. This laboratory is accredited by the AIHA under the Environmental Lead Laboratory Accreditation Program (ELLAP) for selected lead analysis methods. The lead laboratory results are also shown in Appendix A. When a result is noted to be less than (<) on the lead sample report, it should be interpreted as meaning below analytical detection limit.

Findings and Discussion

The sampling results for suspect materials that did not contain detectable amounts of asbestos are summarized on Table 1. The laboratory analytical results are included in Appendix A. Sample locations are illustrated on the Sample Location Maps provided in Appendix B. The diagrams indicate where the samples were taken, but locations of these materials are not limited to the areas sampled. Representative photographs are provided in Appendix C

Non-Asbestos Containing Materials

There were no ACMs discovered during this limited inspection. The following materials were sampled and determined not to contain asbestos:

- Window putty
- Gray paint on window frame

Lead-Containing Paints and Lead-Based Material

The result of this limited inspection determined that lead paints and lead window putty is present. Intact lead paints do not require paint-stabilization. However, deteriorated (loose and flaking) lead paints must be stabilized prior to demolition or renovation. Where inspected, we observed deteriorated paints at the stairwells. As shown on Table 2 and Table 3, we representatively sampled paints and material to comply with Cal/OSHA and DTSC waste disposal regulations during construction.

Paints that contain more than 5,000 ppm lead are considered “lead-based paint” and if deteriorated are considered a “lead-hazard” by the CDPH. Paint chip wastes or material that contains more than 1,000 ppm lead would be classified as California hazardous wastes. Deteriorated paint wastes or materials that contain more than 50 ppm lead, but less than 1,000 ppm lead would need to be re-analyzed by the Soluble Threshold Limit Concentration (STLC) to determine soluble lead content and by the US EPA Total Concentration for Leachable Pollutants (TCLP) test to determine whether the paint or material is either a California or a Federal hazardous waste. If the soluble test(s) exceed 5.0 mg/L, then the waste would be

characterized as “hazardous waste” (either California, federal or both). If ceramic tile or other bulk materials contains greater than 50 ppm, then it should also be removed and tested for leachable lead per the STLC/TCLP methods, prior to demolition or renovation.

We found lead-containing paints and lead-based material based on bulk samples collected.

- Exterior cream paint on window frame contains 2,000 ppm lead. This paint is intact and does not require paint-stabilization.
- Gray and green paint on window frame contains 1,900 ppm lead (Photo 2). This paint is deteriorated and does require paint-stabilization. We estimate about 75 square feet of flaking lead-containing paint.
- Exterior cream paint on window sill contains 5,100 ppm lead. This paint is intact and does not require paint-stabilization.
- Window putty contains up to 7,400 ppm lead (Photo 3). We estimate about 55 windows of this lead-based material will need to be removed prior to demolition or renovation.

Construction work that disturbs lead-based or lead-containing materials (including demolition) will need to be conducted in accordance with Cal/OSHA's lead in construction regulations (8CCR1532.l). These regulations apply to paints and materials that contains any detectable amounts of lead. In theory, this should not pose a significant problem as this regulation has been in effect since 1992. Lead containing materials may require separate disposal if they contain more than 50 ppm lead. This rule does not apply for intact paint.

Cal/OSHA notification 24 hours in advance of removal work would be required because the material (window putty) tested contain more than 0.5% lead or 5,000 ppm lead. Nevertheless Cal/OSHA's lead in construction standard (8CCR1532.1) requires a contractor whose work involves disturbing leaded materials to develop and implement a lead compliance plan. The written lead compliance plan would essentially acknowledge the presence of lead and would describe procedures to minimize airborne lead exposures (e.g., use of dust control, clean up debris daily with a HEPA vacuum, and use good personal hygiene procedures, etc.) consistent with either assumed or known airborne lead exposures. Additionally, if the paint is disturbed (e.g., sanding or chipping), contractor is required to conduct employee exposure assessment to determine appropriate protective measures, including medical surveillance and personal hygiene facilities, and to provide employee training on the hazards of lead related work. Note that lead related work in public buildings that exceeds Cal/OSHA's permissible exposure limit requires that the training be accredited lead worker training under the California Department of Public Health (CDPH).

PCB Findings and Discussion

The Resource Conservation and Recovery Act (RCRA) and the Toxic Substance Control Act (TSCA) defines PCB-containing materials as materials containing concentrations of greater than 500 ppm PCB. PCB-contaminated materials are defined as materials containing a concentration of greater than 50 ppm PCB, but less than 500 ppm PCB. Non-PCB materials are defined as containing a concentration of less than 50 ppm PCB.

An assessment was conducted to test for the presence of building materials that may contain PCB. Acumen sampled priority” building materials including window putty. Based on bulk samples collected at the stairwells, we did not find PCB-containing materials. Window putty samples do not contain a detectable concentration of PCBs. PCB bulk sample results can be found in Table 4.

Recommendations

The findings of this investigation warrant the following actions:

1. Notify potential demolition or renovation contractors of the presence of deteriorated lead-containing paints and lead-based paint and window putty. Disturbance of the lead requires compliance with Cal/OSHA's lead in construction regulation. The paint waste is considered hazardous waste based on the high lead-content.
2. If additional suspect materials were discovered during demolition or renovations, these materials should be sampled to confirm that they do not contain asbestos or lead prior to their removal.
3. Prior to submitting bids to perform abatement work, abatement contractors should field verify all the estimated quantity of ACM materials and other hazardous materials stated in this report.
4. Although there is no regulatory requirement for it, it would be advisable to develop either a work plan or specification for the handling of lead and to protect over occupants of the building.
5. The presence of leaded paints and window putty should be managed under an Operations and Management (O&M) program. The O&M program should establish written policies and procedures for work practices as required by EPA and California laws. The O&M program should establish policy for notifying employees per Health and Safety Code Section 25915-25919.7. Under the Connolly Bill (Health and Safety Code Section 25915-25919.7) the owner (employer) is required to annually provide in writing to each individual employee, the presence and location of asbestos-containing materials in the building.

Conclusions

This limited investigation did not discover asbestos containing material. However, lead-based material (window putty) requires to be removed. Deteriorated lead-containing paints are also present, which should be stabilized prior to demolition or renovation. Disturbing leaded materials will need to follow lead-construction work practices per Cal/OSHA regulations (8CCR1532.1).

Please feel free to contact us if you have any questions or comments regarding this report. Thank you for the opportunity to be of service.

Prepared by:

Tam Pham, CAC (August 14, 2024)
Certified Asbestos Consultant #13-5033
CDPH Lead Accredited #LRC-00004523

Reviewed by:

Paul M. Spillane, CIH, CAC (August 14, 2024)
Certified Asbestos Consultant #10-4630
CDPH Lead Accredited #LRC-00004523

Limitations

Reasonable effort was made by Acumen personnel to locate and sample suspect materials. However, for any facility or building, the existence of unique or concealed ACM/LBP/PCBs, mold or other hazardous materials and debris is a possibility. Acumen does not warrant, guarantee, or profess to have the ability to locate or identify all ACM or other hazardous materials at this facility. The intent of this report is for use in planning and for demolition purposes. All quantities of materials identified in this report should be field verified by contractors prior to submitting bids to perform abatement work. Additional confirmatory sampling and detailed quantification may be required if the renovation work uncovers additional suspect materials. The report is not intended as a CDPH or HUD defined “lead hazard evaluation” or “lead inspection”.

Acumen provided these services consistent with the level and skill ordinarily exercised by members of the profession currently providing similar services under similar circumstances at the time the services were provided. This statement is in lieu of other statements either expressed or implied. This report is intended for the sole use of the named client and their designees. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of certain other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user.

As with all such assessments, the results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times. Additionally, this assessment was limited with respect to the specific parameters indicated above and should not be construed to be a comprehensive evaluation or a definitive representation of all conditions within the facility. The information presented in this report is intended to be used as a guide to evaluate the need for materials removal, further investigation or the need for modifications to the processes or procedures surveyed.

The client should recognize that all testing and remediation methods have reliability limitations, no method or number of sampling locations can guarantee that a condition will be discovered within the performance of the services as authorized by the client. Additionally, the passage of time may result in a change in the environmental characteristics at this site. This report does not warrant against future operations or conditions that could affect the recommendations made. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were observed during Acumen’s inspection of the site.

Table 1

Asbestos Containing Materials
1947 Center Street
Berkeley, CA

July 2, 2024

Location	Material	Results[1]	Sample No.
625	Window Putty	Putty: ND	COB-2231-01A
By 643	Window Putty	Putty: ND	COB-2231-01B
634	Window Putty	Putty: ND	COB-2231-01C
629	Window Putty	Putty: ND	COB-2231-01D
621	Window Putty	Putty: ND	COB-2231-01E
621	Gray Paint on Window Frame	Putty: ND	COB-2231-02A
By 638	Gray Paint on Window Frame	Putty: ND	COB-2231-02B

Footnote

1. Samples were analyzed by polarized light microscopy (PLM) and reported as not containing detectable amounts of asbestos. ND indicates that asbestos was not detected.

Table 2

Summary of Lead Paint Sample Results
1947 Center Street
Berkeley, CA

July 2, 2024

Location	Material	Result[1]	Condition[2]	EQ[3]	Sample No.
By 643	Exterior Cream Paint on Window Frame	2,000	Intact	N/A	COB-2231-PB04
621	Gray and Green Paint on Window Frame	1,900	Deteriorated	75 SF	COB-2231-PB06

Footnote

1. Samples are analyzed by Flame Atomic Absorption Spectrometry (AAS). U.S. EPA SW-846 Method 7420 is used for the instrumental analysis. Nitric acid and hydrogen peroxide digestion procedures are based on U.S. EPA SW-846, 3rd edition. Results reported in milligram per kilogram (mg/kg) or parts per million (ppm). The "<" sign means below analytical detection limit.
2. Intact paint requires no lead-stabilization; deteriorated paint with greater than 50 ppm lead must be stabilized prior to demolition or renovation.
3. EQ means estimated quantity in square feet (SF). Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. N/A = Lead-stabilization is not required.

Table 3

Summary of Lead TTLC Sample Results
1947 Center Street
Berkeley, CA

July 2, 2024

Location	Material	Result[1]	EQ[2]	Sample No.
625	Window Putty	1,400	55 Windows	COB-2231-PB01
625	Exterior Cream Paint on Window Sill	5,100	N/A	COB-2231-PB02
By 643	Window Putty	7,400	Included in PB01	COB-2231-PB03
634	Window Putty	28	Included in PB01	COB-2231-PB05

Footnote

1. Samples are analyzed by Total Threshold Limit Concentration (TTLC) in accordance with EPA Methods 3050B for Acid Digestion (SW 846, 3rd edition, 2007) and 7420 for Analysis (SW-846, 3rd edition, 2007). Results reported in milligram per kilogram (mg/kg) or parts per million (ppm). The "<" sign means below analytical detection limit.
2. EQ means estimated quantity either in square feet (SF). Ceramic tile contains more than 1,000 ppm lead would be classified as California hazardous wastes. If ceramic tile or other material contains greater than 50 ppm lead but less than 1,000 ppm lead, then it should also be removed and tested for leachable lead per the STLC/TCLP methods, prior to demolition or renovation. Estimated quantities should be confirmed by an abatement contractor prior to bid or removal. N/A = Removal is not required.

Table 4

Summary of PCB Sample Results
1947 Center Street
Berkeley, CA

July 2, 2024

Location	Material	Results[1]	Sample No.
625	Window Putty	ND	COB2231-PCB01
By 643	Window Putty	ND	COB2231-PCB02
634	Window Putty	ND	COB2231-PCB03

Footnote

1. Samples were analyzed by Gas Chromatography. U.S. EPA Method 8082A is used to determine the concentrations of polychlorinated biphenyls (PCBs) as Aroclors or as individual PCB congeners in extracts from solid, tissue, and aqueous matrices, using open-tubular, capillary columns with electron capture detectors (ECD) or electrolytic conductivity detectors (ELCD). ND indicates that PCB was not detected.

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

WWW.ACUMEN-IH.COM

Appendix A

Laboratory Reports

1947 Center Street
Berkeley, CA

August 2024

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB-2231
6TH FLOOR
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**316946**
Total Samples	7
Date Sampled	07/02/2024
Date Received	07/02/2024
Date Analyzed	07/03/2024

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB-2231-01A Micro #: 316946-01 Analyst: BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES
Client #: COB-2231-01B Micro #: 316946-02 Analyst: BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES
Client #: COB-2231-01C Micro #: 316946-03 Analyst: BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES
Client #: COB-2231-01D Micro #: 316946-04 Analyst: BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES
Client #: COB-2231-01E Micro #: 316946-05 Analyst: BK BK WINDOW PUTTY	ND	NFM: CARBONATE, MISC. PARTICLES

Technical Supervisor: _____ 7/3/2024
Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB-2231
6TH FLOOR
1947 CENTER STREET
BERKELEY, CA

Micro Log In	**316946**
Total Samples	7
Date Sampled	07/02/2024
Date Received	07/02/2024
Date Analyzed	07/03/2024

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: COB-2231-02A Micro #: 316946-06 Analyst: BK GRAY PAINT ON WINDOW FRAME	ND	NFM: OPAQUES
Client #: COB-2231-002B Micro #: 316946-07 Analyst: BK GRAY PAINT ON WINDOW FRAME	ND	NFM: OPAQUES

Technical Supervisor: Baojia Ke, Ph.D. 7/3/2024 Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

A

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

316946 (PLM)

Project No. COB 2231

Location: 1947 Center Street, 6th Floor
Address: Berkeley, CA
Sampling Date: 7/2/2024

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: [X] Normal [ ] 24 Hour [ ] Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
1	COB 2231-01A	6	625	window putty	PLM Asbestos
2	01B		BY643		
3	01C		634		
4	01D		629		
5	01E		621		
6	02A		621	grey paint on window frame	
7	02B		BY638		
	Pb01		625	window putty	TTLC LEAD
	Pb02		625	EXT. cream paint on window sil	
	Pb03		BY643	window putty	

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By:	Received By: CS
Date Submitted: 7/2/2024	Date Received: 7/2/24 12:53

Sample(s) Submitted Via: [X] Hand Delivered [ ] Federal Express (Air Bill #_____) [ ] Other: _____

MICRO ANALYTICAL LABORATORIES, INC.

LEAD IN PAINT - FLAME AAS (SW846)

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:
PROJECT NO. COB-2231
6TH FLOOR
1947 CENTER STREET
BERKELEY, CA

Micro Log In 316948
Total Samples 2
Date Sampled 07/02/2024
Date Received 07/02/2024
Date Analyzed 07/03/2024

Sample ID	Lead Concentration Weight Percent	mg/kg (ppm)	RDL
Client: COB-2231-PB04 Lab: 316948-01 EXT. CREAM PAINT ON WINDOW FRAME	0.20 %	2000	0.0080 % 80 mg/kg
Client: COB-2231-PB06 Lab: 316948-02 GRAY + GREEN PAINT ON WINDOW FRAME	0.19 %	1900	0.0081 % 81 mg/kg

Technical Supervisor: _____ 7/3/2024
Long T. Nguyen, Chemistry Supervisor Date Reported

Analyst: RN

AIHA-LAP, LLC Accredited Laboratory, ID #101768. Samples are analyzed by Flame Atomic Absorption Spectrometry (FLAAS) using SOP 23-Paint. This SOP is based on U.S. EPA SW-846 Method 7420 for instrumental analysis, and on ASTM E-1645-21 for nitric acid and hydrogen peroxide digestion. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. If the amount of sample available for analysis is lower than advisable for this method, detection limits and uncertainty will be higher. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. N/A = Not Applicable. RDL = Report Detection Limit.

A

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM 316948

(paint)

Project No. COB 2231

Location: <SAME>
Address:
Sampling Date: 7/2/2024

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
1	COB2231-P604	6	By 643	EXT. cream paint on window Frame	~~FLAA~~ ~~LEAD~~
	P605	|	634	window putty	TTCL ~~LEAD~~
2	P606	|	621	gray + green paint on window frame	~~FLAA~~ ~~LEAD~~

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By:	Received By: CS
Date Submitted: 7/2/2024	Date Received: 7/2/24 12:53

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other: _____

☐ NT ☐ WTE

MICRO ANALYTICAL LABORATORIES, INC.

EPA SW-846 LEAD-TTLC

1092
Paul Spillane
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122-2216

PROJECT:

PROJECT NO. COB-2231
6TH FLOOR
1947 CENTER STREET
BERKELEY, CA

Micro Log In	316947
Total Samples	4
Date Sampled	07/02/2024
Date Received	07/02/2024
Date Analyzed	07/03/2024

Sample ID	Lead Concentration, ppm	RDL, ppm	Comments
Client COB-2231-PB01 Micro 316947-01 WINDOW PUTTY	1400	250	
Client COB-2231-PB02 Micro 316947-02 EXT. CREAM PAINT ON WIDOW SILL	5100	500	
Client COB-2231-PB03 Micro 316947-03 WINDOW PUTTY	7400	500	
Client COB-2231-PB05 Micro 316947-04 WINDOW PUTTY	28	10	

Technical Supervisor: _____ 7/3/2024 Analyst: RN
Long T. Nguyen, Chemistry Supervisor — Date Reported

Samples are analyzed by Flame Atomic Absorption Spectrometry (FLAAS) using SOP 23-Soil (in accordance with EPA Methods 3050B for Acid Digestion (SW 846, 3rd edition, 2007) and 7420 for Analysis (SW-846, 3rd edition, 2007)). NOTE: Water samples are analyzed by FLAA in accordance with Method 3111B (Standard Methods for the Examination of Water and Wastewater, 18th edition). Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. This report must not be reproduced except in full without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION. L = liters. RDL = Report Detection Limit. Note: mg / Kg is the same as ppm for solids, and mg/L is the same as ppm for water.

(HIC)

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6005
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM 316947

Project No. COB 2231

Location: 1947 Center Street, 6th Floor
Address: Berkeley, CA
Sampling Date: 7/2/2024

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: [X] Normal [ ] 24 Hour [ ] Rush
Collection By: Tam Pham

	Sample No.	Floor	Location	Description	Method
	COB 2231-01A	6	625	window putty	PLM Asbestos
	01B		BY 643		
	01C		634		
	01D		629		
	01E		621		
	02A		621	gray paint on window frame	
	02B		BY 638		
1	PB01		625	window putty	TTLC LEAD
2	PB02		625	EXT. cream paint on window sil	
3	PB03		BY 643	window putty	

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 7/2/2024	Date Received: 7/2/24 12:53

Sample(s) Submitted Via: [X] Hand Delivered [ ] Federal Express (Air Bill #_____) [ ] Other: _____

[ ] NT [ ] WTE

A

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2218
TEL 415 242 5060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

BULK CHAIN OF CUSTODY FORM

316947 (HIC)

Project No. COB 2231

Location: (SAME)
Address:
Sampling Date: 7/2/2024

Laboratory: Micro Analytical Laboratories, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

Sample No.	Floor	Location	Description	Method
COB2231-P604	6	By 643	EXT. cream paint on window Frame	PLM LEAD
P605	1	634	window putty	TTCL LEAD
P606	1	621	gray + green paint on window frame	PLM LEAD

4

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By: [signature]	Received By: CS
Date Submitted: 7/2/2024	Date Received: 7/2/24 12:53

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill # _____) ☐ Other: _____

☐ NT ☐ WTE

McCampbell Analytical, Inc.
"When Quality Counts"

Analytical Report

WorkOrder: 2407312

Report Created for: Acumen Industrial Hygiene, Inc.

1032 Irving Street, #922
San Francisco, CA 94122

Project Contact: Results
Project P.O.:
Project: COB 2231; COB 2231

Project Location: 1947 Center Street - 6th Floor Berkeley, CA
Project Received: 07/03/2024

Analytical Report reviewed & approved for release on 07/11/2024 by:

Jena Alfaro
Project Manager

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Acumen Industrial Hygiene, Inc. **WorkOrder:** 2407312

Project: COB 2231; COB 2231

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CCV	Continuing Calibration Verification.
CCV REC (%)	% recovery of Continuing Calibration Verification.
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LCS2	Second LCS for the batch. Spike level is lower than that for the first LCS; applicable to method 1633.
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit [1]
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit [2]
RPD	Relative Percent Difference
RRT	Relative Retention Time
RSD	Relative Standard Deviation
SNR	Surrogate is diluted out of the calibration range
SPK Val	Spike Value

[1] MDL is the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. Definition and Procedure for the Determination of the Method Detection Limit, Revision 2, 40CFR, Part 136, Appendix B, EPA 821-R-16-006, December 2016. Values are based upon our default extraction volume/amount and are subject to change.

[2] RL is the lowest level that can be reliably determined within specified limits of precision and accuracy during routine laboratory operating conditions. (The RL cannot be lower than the lowest calibration standard used in the initial calibration of the instrument and must be greater than the MDL.) Values are based upon our default extraction volume/amount and are subject to change.

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Acumen Industrial Hygiene, Inc. **WorkOrder:** 2407312

Project: COB 2231; COB 2231

SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TNTC	"Too Numerous to Count;" greater than 250 colonies observed on the plate.
TZA	TimeZone Net Adjustment for sample collected outside of MAI's Coordinated Universal Time (UTC). (Adjustment for Daylight Saving is not accounted.)
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3	Sample diluted due to high organic content interfering with quantitative/or qualitative analysis.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Acumen Industrial Hygiene, Inc.	**WorkOrder:**	2407312
Date Received:	07/03/2024 15:30	**Extraction Method:**	SW3550B/3630C
Date Prepared:	07/05/2024	**Analytical Method:**	SW8082A
Project:	COB 2231; COB 2231	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors w/ Column Style Clean-up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COB2231 PCB01	2407312-001A	Caulk	07/02/2024	GC23 07092417.d	297087

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	10	20	07/09/2024 12:27
Aroclor1221	ND	10	20	07/09/2024 12:27
Aroclor1232	ND	10	20	07/09/2024 12:27
Aroclor1242	ND	10	20	07/09/2024 12:27
Aroclor1248	ND	10	20	07/09/2024 12:27
Aroclor1254	ND	10	20	07/09/2024 12:27
Aroclor1260	ND	10	20	07/09/2024 12:27
PCBs, total	ND	10	20	07/09/2024 12:27

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	85	70-130	07/09/2024 12:27

Analyst(s): CN Analytical Comments: a3

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COB2231 PCB02	2407312-002A	Caulk	07/02/2024	GC23 07092424.d	297087

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	10	20	07/09/2024 14:15
Aroclor1221	ND	10	20	07/09/2024 14:15
Aroclor1232	ND	10	20	07/09/2024 14:15
Aroclor1242	ND	10	20	07/09/2024 14:15
Aroclor1248	ND	10	20	07/09/2024 14:15
Aroclor1254	ND	10	20	07/09/2024 14:15
Aroclor1260	ND	10	20	07/09/2024 14:15
PCBs, total	ND	10	20	07/09/2024 14:15

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	88	70-130	07/09/2024 14:15

Analyst(s): CN Analytical Comments: a3

(Cont.)

CA ELAP 1644

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Acumen Industrial Hygiene, Inc.	**WorkOrder:**	2407312
Date Received:	07/03/2024 15:30	**Extraction Method:**	SW3550B/3630C
Date Prepared:	07/05/2024	**Analytical Method:**	SW8082A
Project:	COB 2231; COB 2231	**Unit:**	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors w/ Column Style Clean-up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COB2231 PCB03	2407312-003A	Caulk	07/02/2024	GC23 07092425.d	297087

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	10	20	07/09/2024 14:31
Aroclor1221	ND	10	20	07/09/2024 14:31
Aroclor1232	ND	10	20	07/09/2024 14:31
Aroclor1242	ND	10	20	07/09/2024 14:31
Aroclor1248	ND	10	20	07/09/2024 14:31
Aroclor1254	ND	10	20	07/09/2024 14:31
Aroclor1260	ND	10	20	07/09/2024 14:31
PCBs, total	ND	10	20	07/09/2024 14:31

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	105	70-130	07/09/2024 14:31

Analyst(s): CN

Analytical Comments: a3

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Acumen Industrial Hygiene, Inc.	**WorkOrder:**	2407312
Date Prepared:	07/05/2024	**BatchID:**	297087
Date Analyzed:	07/09/2024	**Extraction Method:**	SW3550B/3630C
Instrument:	GC23	**Analytical Method:**	SW8082A
Matrix:	Bulk Material	**Unit:**	mg/kg
Project:	COB 2231; COB 2231	**Sample ID:**	MB/LCS/LCSD-297087

QC Summary Report for SW8082A w/ Column Clean-up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aroclor1016	ND	0.050	0.050	-	-	-
Aroclor1221	ND	0.050	0.050	-	-	-
Aroclor1232	ND	0.050	0.050	-	-	-
Aroclor1242	ND	0.050	0.050	-	-	-
Aroclor1248	ND	0.050	0.050	-	-	-
Aroclor1254	ND	0.050	0.050	-	-	-
Aroclor1260	ND	0.050	0.050	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.052			0.05	103	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aroclor1016	0.13	0.13	0.15	88	90	70-130	1.66	20
Aroclor1260	0.13	0.12	0.15	86	82	70-130	5.12	20
Surrogate Recovery								
Decachlorobiphenyl	0.054	0.048	0.050	108	96	70-130	11.6	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2407312 **ClientCode: ACUM**

☐ WaterTrax ☐ CLIP ☐ EDF ☒ EQuIS ☒ Dry-Weight ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☒ Detection Summary ☐ Excel

Report to:
Results
Acumen Industrial Hygiene, Inc.
1032 Irving Street, #922
San Francisco, CA 94122
415-242-6060 FAX: 415-242-6051

Email: lab@acumen-ih.com
cc/3rd Party:
PO:
Project: COB 2231; COB 2231

Bill to:
Accounts Payable
Acumen Industrial Hygiene, Inc.
1032 Iriving Street, #922
San Francisco, CA 94142-3570
irene@acumen-ih.com

Requested TAT: **5 days;**

Date Received: **07/03/2024**
Date Logged: **07/05/2024**

Lab ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2407312-001	COB2231 PCB01	Caulk	7/2/2024 00:00	☐	A	A										
2407312-002	COB2231 PCB02	Caulk	7/2/2024 00:00	☐	A	A										
2407312-003	COB2231 PCB03	Caulk	7/2/2024 00:00	☐	A	A										

Test Legend:

1	8082_PCB_SG_Caulk	2	PRDisposal Fee	3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Gemma Gomez

Comments:

NOTE: Soil samples are discarded 60 days after receipt unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ACUMEN INDUSTRIAL HYGIENE, INC. **Project:** COB 2231; COB 2231 **Work Order:** 2407312

Client Contact: Results **QC Level:** LEVEL 2

Contact's Email: lab@acumen-ih.com **Comments** **Date Logged:** 7/5/2024

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

LabID	ClientSampID	Matrix	Test Name	Cont./ Comp.	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001A	COB2231 PCB01	Caulk	SW8082A (PCBs w/ Column Style Clean-up)	1	Plastic Baggie, Extra Small	☐	☐	☐	7/2/2024	5 days	7/12/2024		☐	☐
002A	COB2231 PCB02	Caulk	SW8082A (PCBs w/ Column Style Clean-up)	1	Plastic Baggie, Extra Small	☐	☐	☐	7/2/2024	5 days	7/12/2024		☐	☐
003A	COB2231 PCB03	Caulk	SW8082A (PCBs w/ Column Style Clean-up)	1	Plastic Baggie, Extra Small	☐	☐	☐	7/2/2024	5 days	7/12/2024		☐	☐

NOTES: *** STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).**

- ISM prep requires 5 to 10 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 6 to 11 days from sample submission). Due date listed on WO summary will not accurately reflect the time needed for sample preparation.

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

U = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.**

Cont./Comp. = Containers /Composites

2407312

ACUMEN

BULK CHAIN OF CUSTODY FORM

INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922 SAN FRANCISCO CA 94122-2216
TEL 415 242 6060 FAX 415 242 6006
WWW.ACUMEN-IH.COM

Project No. COB 2231

Location: 1947 Center Street - 6th Floor
Address: Berkeley, CA
Sampling Date: 7/2/2024

Laboratory: McCampbell Analytical, Inc.
Turnaround: ☒ Normal ☐ 24 Hour ☐ Rush
Collection By: Tam Pham

Sample No.	Floor	Location	Description	Method
COB2231 PCB01	6	625	window putty	PCB EPA 8082
PCB02		By 643		
PCB03		634		

Other Instructions: Email results to lab@acumen-ih.com.

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports.

Sent By:	Received By: 7.9
Date Submitted: 7/2/2024	Date Received: 7/3/24 1315 ~~7/3/24 15:15~~ 7.9

Sample(s) Submitted Via: ☒ Hand Delivered ☐ Federal Express (Air Bill #_____) ☐ Other: _____

7/3/24 1530

7/3/24 15:30

Rev 08/01

Page 1 of 1

☐ NT ☐ WTE

2.1 W

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	Acumen Industrial Hygiene, Inc.	Date and Time Received:	7/3/2024 15:30
Project:	COB 2231; COB 2231	Date Logged:	7/5/2024
		Received by:	Gemma Gomez
WorkOrder №:	2407312 Matrix: Caulk	Logged by:	Gemma Gomez
Carrier:	Benjamin Yslas (MAI Courier)		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA	☑
Custody seals intact on sample bottles?	Yes	☐	No	☐	NA	☑
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						
Sample/Temp Blank temperature	Temp: 2.1°C				NA	☐
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2)?	Yes	☐	No	☐	NA	☑

UCMR Samples:

pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]?	Yes	☐	No	☐	NA	☑

Comments:

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

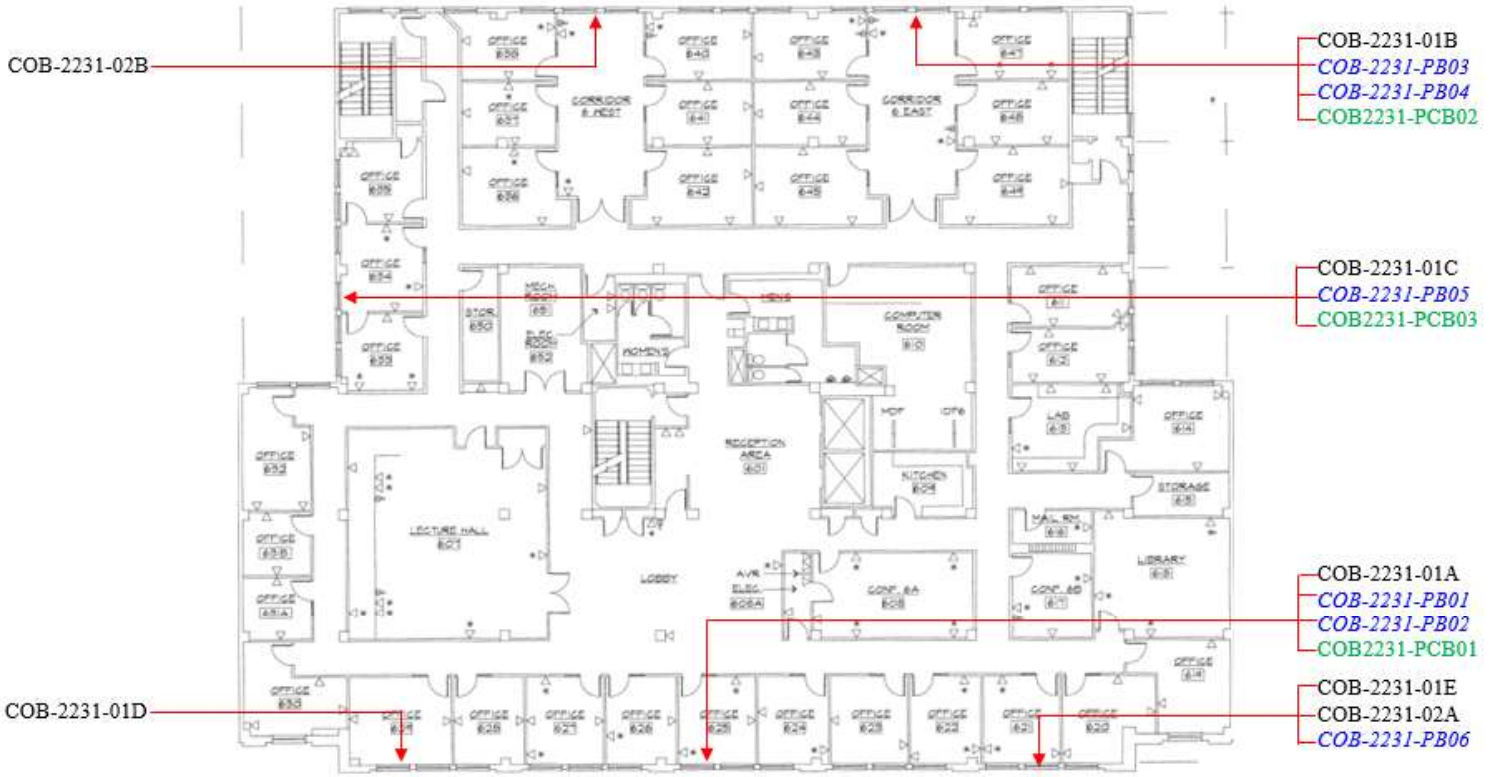
WWW.ACUMEN-IH.COM

Appendix B

Sample Location Floor Plans

1947 Center Street
Berkeley, CA

August 2024



Vertical Sample
Floor Sample
Ceiling Sample
Red Asbestos Containing Material
Blue Lead Sample
Green PCB Sample
* Floor plan is not to scale.

ACUMEN
INDUSTRIAL HYGIENE INC
1032 IRVING STREET #922
SAN FRANCISCO CA 94122
415 242 6060
WWW.ACUMEN-IH.COM

Project
1947 Center Street
Berkeley, CA

Project No.	Date
COB 2231	07/02/2024

Location
-

Level
Sixth Floor

ACUMEN

INDUSTRIAL HYGIENE INC

1032 IRVING STREET #922 SAN FRANCISCO CA 94122

TEL 415 242 6060 FAX 415 242 6006

WWW.ACUMEN-IH.COM

Appendix C

Photographs

1947 Center Street
Berkeley, CA

August 2024

Photo 1

1947 Center Street, Berkeley.

Photo 2

Gray and green paint on window frame contains 1,900 ppm lead.

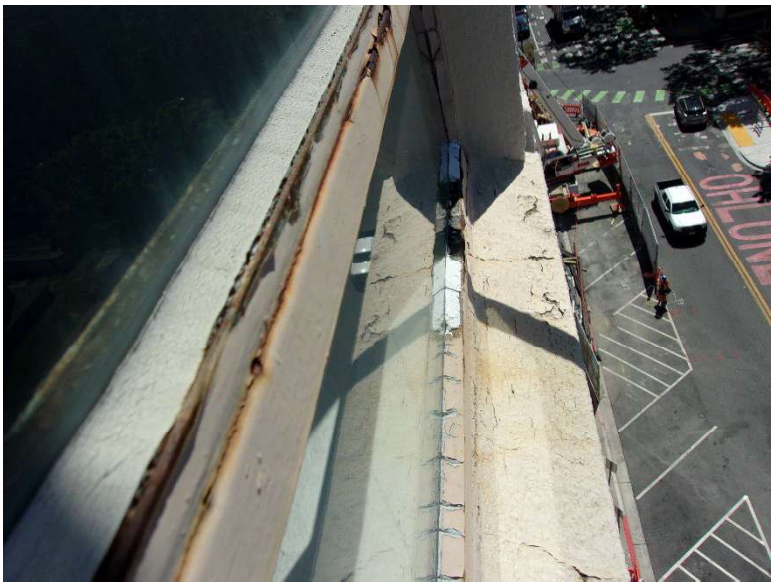


Photo 3

Window putty contains up to 7,400 ppm lead.