



August 13, 2019

Mr. Josh Koenig-Brown
Director of Maintenance, Operations & Transportation
Oxnard Union High School District
309 K Street
Oxnard, CA 93030

Subject: Asbestos & Lead Roofing Survey
Channel Islands High School – Buildings B & C
1400 Raiders Way
Oxnard, CA 93033
FCG Job Code: OUHSD-35

Dear Mr. Brown:

FCG Environmental (FCG) conducted a hazardous materials survey of roofing materials at Buildings B and C at the Channel Islands High School Campus. Our survey included asbestos bulk sampling of roofing materials and testing of painted surfaces for lead. The investigation was performed on August 9, 2019 by Blake Forbess, Certified Site Surveillance Technician (CSST No.18-6328) and Certified Lead Sampling Technician (No. 28474), under the supervision of Alan Forbess, a CA Lead Inspector/Assessor and Project Monitor (No. 17425) and CA Certified Asbestos Consultant (No. 94-1549). This report documents the results of our survey, which was conducted to identify proper handling of hazardous building materials prior to roofing replacement activities.

1.0 Background Information / Scope of Project

Background/Site Description: According to information provided to FCG, the existing roofing on Buildings B and C are scheduled to be removed and replaced. Lead testing was also requested in relevant areas.

Scope of Project: FCG was asked to perform a survey of relevant building materials in order to identify hazardous materials concerns in accordance with federal, state and local regulations. The following services were conducted in order to define asbestos and lead concerns within the scope of roofing replacement work:

- A visual inspection of representative building materials was conducted to identify suspect asbestos and lead paint materials.
- Bulk samples were collected from representative suspect materials for submittal to a qualified laboratory for asbestos analysis. All bulk samples were analyzed by Forensic Analytical, a state-certified laboratory located in Rancho Dominguez, CA. All samples were analyzed by polarized light microscopy (PLM), to determine asbestos fiber concentrations in bulk building material samples. PLM is applicable for the analysis of building survey submissions and other bulk materials.

- Screening for lead-based paint was conducted using an X-Ray Fluorescence (XRF) paint analyzer to screen representative surfaces and materials suspected of being coated with lead-based paint.
- All field observations, laboratory analytical data, XRF readings and other findings have been evaluated, with this written report summarizing our findings and providing recommendations as necessary.

2.0 Asbestos Survey Findings

Suspect Materials: After a visual inspection was completed, the following suspect asbestos containing materials were noted:

- Roofing layers – Buildings B & C (felts, tars, composite roofing layers)
- Roofing mastics with silver paint (used to seal around vents, penetrations, etc.)
- Transite (asbestos-cement) flue pipes – Buildings B & C (not sampled)

Bulk Sampling Results: FCG collected 12 bulk samples from suspect asbestos containing materials. Samples were forwarded to Forensic Analytical, a certified asbestos laboratory located in Rancho Dominguez, CA. All samples were analyzed by Polarized Light Microscopy (PLM) using EPA Method 600/R-93-116, Visual Area Estimation.

Summary of Asbestos Sampling Results: Based on the results of laboratory analytical data, we found the following:

Building B:

- A total of six (6) bulk samples were collected from roofing layers and mastics on this building. None of the roofing materials sampled as part of our survey were found to be asbestos containing. This includes main roofing layers (composite sheeting, underlying felts, tars, etc.) and roofing mastics used to seal around penetrations, vents, etc. Please see the attached laboratory analytical report for additional information.
- A total of 13 transite (asbestos-cement) flue pipes were noted on Building B, which appear to be related to heaters, plumbing or other equipment located within the building which is vented up through the roof. Piping materials were not sampled due to potential for permanent damage. Regulations allow asbestos inspectors to “presume” that these materials contain asbestos without laboratory data based on the inspector’s experience and knowledge of building materials. Therefore, all transite piping on Building B must be managed as Presumed Asbestos Containing Materials (PACM)..

Building C:

- A total of six (6) bulk samples were collected from roofing layers and mastics on this building. None of the roofing materials sampled as part of our survey were found to be asbestos containing. This includes main roofing layers (composite sheeting, underlying felts, tars, etc.) and roofing mastics used to seal around penetrations, vents, etc. Please see the attached laboratory analytical report for additional information.
- A total of 21 transite (asbestos-cement) flue pipes were noted on Building B, which appear to be related to heaters, plumbing or other equipment located within the building which is vented up through the roof. Piping materials were not sampled due to potential for permanent damage. Regulations allow asbestos inspectors to “presume” that these materials contain asbestos without laboratory data based on the inspector’s experience

and knowledge of building materials. Therefore, all transite piping on Building B must be managed as Presumed Asbestos Containing Materials (PACM).

Please see the Conclusions & Recommendations (Section 4.0) below for further discussion regarding the abatement and proper handling of asbestos containing materials. Please refer to the Attachments for a complete copy of the laboratory analytical results.

3.0 Lead-Based Paint Survey

FCG was contracted to perform field testing to determine the presence of lead-based paint or lead components in relevant areas at the subject site. A visual inspection of the site was conducted to identify areas of suspect lead-based paint or coatings. Screening for lead was conducted in the field using XRF methodology in accordance with current state and federal regulations. All field work was conducted by a Certified Lead Sampling Technician. Results of this survey will be used by contracting personnel to determine appropriate lead safe work practices prior to renovation work.

Background Information on Lead Paint Requirements: Several regulations apply to the disturbance and possible exposure to lead from paints and other coatings. Title 17 of the California Code of Regulations (CCR) applies to residences and buildings accessible to the public that were constructed prior to 1979, and schools constructed before 1993 where lead paint may exist. Cal-OSHA regulations found within Title 8 of the CCR apply to worker exposure as stated in the Lead-in-Construction Standard (8-CCR-1532.1). The EPA recently issued a final rule to address lead-based paint hazards created by renovation, repair and painting activities that disturb lead-based paint in target housing and child-occupied facilities.

The EPA's Lead Renovation, Repair and Painting (RRP) Program was passed into regulation requiring compliance with training and certification requirements per Title 40 of the Code of Federal Regulations (40 CFR Part 745). The RRP rule states that firms and individuals conducting renovations of target housing constructed before 1978 must assume that lead is present in all painted surfaces or coatings unless a written determination has been made by a Certified Inspector that the components affected by the renovation are free of paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm^2) or 0.5% by weight.

Scope of Lead Testing Services: FCG's scope of services involved field testing through use of X-ray fluorescence (XRF) instrumentation, which provides instantaneous readings in the field. The XRF instrument is used because of its demonstrated abilities to accurately determine the amount of lead that is present without disturbing the painted surfaces, as well as their high speed and relatively low cost per sample. The XRF device is capable of measuring lead in both deteriorated and intact paint. See the Attachments to this report for more information on XRF sampling methodology.

Inspection Results: Per EPA and California regulations, paint or coatings are considered to be lead-based at concentrations at or above 1.0 milligram per square centimeter (mg/cm^2) using XRF technology. FCG tested representative remaining surfaces throughout the subject site. Calibration tests were performed at the beginning of the survey and again at the end of the survey to document that the equipment was working properly. The following is a summary of our field results:

- None of the painted surfaces tested positive for lead at or above the regulatory threshold of 1.0 mg/cm² by XRF testing methodology. Therefore, no Lead Based Paint (LBP) was found within the project scope per current state and federal regulations.

Please refer to the attached data table for a summary of XRF readings collected from each building. The A side noted in the table is the front or street side and the B, C and D sides continue clockwise around the site.

4.0 Conclusions & Recommendations

An asbestos and lead-based paint survey of the project area (Bldg. B & C roofing) has been completed per the terms of our agreement to define hazardous materials issues prior to roofing replacement activities. Based on our visual observations and our evaluation of analytical data, we conclude the following:

Asbestos:

- **Roofing Materials:** No asbestos was detected in the suspect roofing materials tested, including all roofing mastics, felts, tars, composite sheeting and other roofing materials. This excludes transite (asbestos-cement) piping found on both buildings.
- **Transite (asbestos-cement) Flue Pipes:** The following materials are presumed to be asbestos containing (PACM) based on visual appearance and experience of the inspector. These materials are regulated as asbestos under current federal, state and local regulations:
 - **Building B – 13 Transite Flue Pipes.**
 - **Building C – 21 Transite Flue Pipes.**

Note: All transite piping can be managed in place if the proposed roofing project will not disturb or damage the piping. If the piping systems must be removed or disturbed, please follow the recommendations below.

Asbestos Recommendations:

- 1) Transite pipe materials (PACM) that will be disturbed as part of roofing replacement must be managed in accordance with applicable federal, state and local regulations. Disturbance activities should be performed only by properly trained and licensed abatement contractors using appropriate controls to prevent fiber emissions during the removal process. This may include the use of wet methods (water mist), HEPA filtration and other engineering controls to keep fibers from being dispersed in accordance with current federal, state and local regulations.
- 2) Pipes may be removed intact to avoid disturbance. This may be achieved by disconnecting the pipe from the source (water heater, furnace, etc.) and removing the roofing materials or flashing around the base of the pipe to allow it to be removed. If damage or disturbance of the pipe is anticipated, asbestos workers must perform the removal tasks and should be properly protected to prevent exposure, including the use of respiratory protection with HEPA filtration, protective suits, etc. Engineering controls

must be in place. Disturbance of greater than 100 sq. ft. of any ACM or PACM must be performed by trained and licensed asbestos contractors that are currently registered with the Dept. of Occupational Safety & Health (DOSH or Cal/OSHA).

- 3) The local enforcement agency for asbestos removal projects in this area is the Ventura County Air Pollution Control District (APCD). They require notification for removal of friable, regulated asbestos containing materials in quantities which exceed 100 square feet. The transite piping would be considered a non-friable material and is not subject to notification requirements. Regardless of the quantities and type of asbestos found, the survey report should be submitted for their review along as a courtesy with any required documentation or notifications for their review and approval. They also require notification for all demolition projects, including projects where a load-bearing wall is removed. Additional permit requirements may apply from the local Building Department. We recommend that you contact the local APCD and appropriate agencies directly for further information regarding permitting and regulatory requirements.
- 4) The contractor conducting abatement work is responsible for complying with local, state and federal standards for worker protection and NESHAPS regulations regarding asbestos fiber emissions. Proper removal techniques must be followed to prevent the dissemination of asbestos fibers. Notification and permitting is typically the responsibility of the abatement contractor and/or property owner. If you would like assistance regarding these matters or would like the names of qualified contractors in your area, please feel free to contact FCG at (805) 646-1995.

Lead Paint Survey:

- 1) None of the painted surfaces screened as part of our survey tested positive for lead at or above the regulatory threshold of 1.0 mg/cm² by XRF testing methodology. This included representative painted materials on the roof and at the upper walls and flashings, etc. that might be disturbed as part of the roofing project.
- 2) Based on these findings, lead safe work practices are not required if these areas or materials will be disturbed as part of roofing replacement activities.
- 3) It should be noted that although the painted surfaces tested do not meet the criteria of LBP, any material containing any detectable level of lead is subject to OSHA's Lead Exposure in Construction Rule (29 CFR Part 1926). Cal/OSHA's Construction Lead Standard (Title 8, CCR, Section 1532.1) states that employers can assume that disturbance of coatings or materials shown to contain less than 0.06% lead by weight or 600 ppm will not result in exposures above the Action Level (30 ug/m³ lead in air). It is the responsibility of the employer to ensure that employees are not exposed above the Action Level or Permissible Exposure Limit per OSHA.

General: As our survey was limited to readily accessible areas within the project scope only, there is potential that suspect materials previously not included or identified by our survey could be discovered during future renovation/demolition work within these buildings. This may include suspect materials located inside walls, under floors, above ceilings, etc. If suspect materials are found during site work, the area should be isolated, and any suspect materials tested to confirm or deny the presence of asbestos, lead or other hazards.

Limitations Statement

The data compiled and evaluated as part of this assessment was limited and may not represent all conditions at the subject site. Asbestos was widely used until the late 1970's in thousands of building materials (i.e. joint compound, wallboard, thermal system insulation (TSI), acoustical ceiling, roofing material, etc.), making it difficult to locate all areas of ACM usage. This assessment reflects the data collected from the specific locations tested to identify Asbestos Containing Materials (ACM) in those locations and may not be all encompassing. There is always potential for asbestos containing materials to be missed due to problems with accessibility, and the broad variety of uses. The presence or absence of lead-based paint or lead-based paint hazards applies only to the tested or assessed surfaces on the date of the field visit. It should be understood that conditions noted within this report were accurate at the time of the inspection and in no way reflect the conditions at the property after the date of the inspection. All data collection, findings, conclusions and recommendations presented by FCG within this report are based upon limited data using current standard practices accepted within the industry. The conclusions and recommendations presented within this report are based on current regulations and the professional experience of the certified professionals involved in this project.

The data collected during this assessment and any resulting recommendations shall be used only by the client for the site described in this report. Any use or reliance of this report by a third party, including any of its information or recommendations, without the explicit authorization of the client shall be strictly at the risk of the third party.

It should not be misconstrued that this assessment has identified any or all environmental conditions at the subject site. FCG makes no representations regarding the accuracy of the enclosed data and will not be held responsible for any incidental or consequential loss or punitive damages including but not limited to, loss of profits or revenues, loss of use of a facility or land, delay in construction or action of regulatory agencies.

If you have any questions or concerns regarding the information provided, please do not hesitate to call us at 805.646.1995.

FCG Environmental



Alan Forbess, Principal Consultant
Certified Lead Inspector/Assessor #17425
CA Certified Asbestos Consultant #94-1549

Attachments: 1 - Forensic Analytical Results & Bulk Sampling Log (Asbestos)
2 - XRF Field Readings and XRF Sampling Methodology (Lead Paint)
3 - FCG Inspector Certifications

Attachment 1

Laboratory Analytical Results for Asbestos Bulk Samples

Bulk Sample Log Sheets/Chain-of-Custody

Field Sketch/Plot Plan



Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)
NVLAP Lab Code: 101459-1

FCG Environmental
Alan Forbess
1009 Mercer Avenue
Ojai, CA 93023

Client ID: 7238
Report Number: B291461
Date Received: 08/12/19
Date Analyzed: 08/12/19
Date Printed: 08/12/19
First Reported: 08/12/19

Job ID/Site: Oxnard UHSD-35; Channel islands HS/1400 Raiders Way, Bldgs. B2 & C2

FALI Job ID: 7238
Total Samples Submitted: 12
Total Samples Analyzed: 12

Date(s) Collected: 08/09/2019

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
1	51257625						
Layer: Stones			ND				
Layer: Black Tars			ND				
Layer: Black Felts			ND				
Layer: Tan Fibrous Material			ND				
Layer: Wood			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (10 %)	Fibrous Glass (20 %)						
2	51257626						
Layer: Stones			ND				
Layer: Black Tars			ND				
Layer: Black Felts			ND				
Layer: Tan Fibrous Material			ND				
Layer: Wood			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %)	Fibrous Glass (20 %)						
3	51257627						
Layer: Stones			ND				
Layer: Black Tars			ND				
Layer: Black Felts			ND				
Layer: Tan Fibrous Material			ND				
Layer: Wood			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (10 %)	Fibrous Glass (20 %)						
4	51257628						
Layer: Silver Paint			ND				
Layer: Off-White Semi-Fibrous Material			ND				
Layer: Silver Paint			ND				
Layer: Grey Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (2 %)							

Client Name: FCG Environmental

Report Number: B291461

Date Printed: 08/12/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
5	51257629						
Layer: Off-White Non-Fibrous Material			ND				
Layer: Silver Paint			ND				
Layer: Grey Non-Fibrous Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (2 %)							
6	51257630						
Layer: Silver Paint			ND				
Layer: Off-White Semi-Fibrous Material			ND				
Layer: Grey Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (2 %)							
7	51257631						
Layer: Stones			ND				
Layer: Black Tars			ND				
Layer: Black Felts			ND				
Layer: Tan Fibrous Material			ND				
Layer: Wood			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %)	Fibrous Glass (20 %)						
8	51257632						
Layer: Stones			ND				
Layer: Black Tars			ND				
Layer: Black Felts			ND				
Layer: Tan Fibrous Material			ND				
Layer: Wood			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %)	Fibrous Glass (20 %)						
9	51257633						
Layer: Stones			ND				
Layer: Black Tars			ND				
Layer: Black Felts			ND				
Layer: Tan Fibrous Material			ND				
Layer: Wood			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (15 %)	Fibrous Glass (20 %)						
10	51257634						
Layer: Grey Semi-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Synthetic (2 %)						

Client Name: FCG Environmental

Report Number: B291461

Date Printed: 08/12/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
11	51257635						
Layer: Silver Paint			ND				
Layer: Off-White Semi-Fibrous Material			ND				
Layer: Silver Paint			ND				
Layer: Grey Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (2 %)							
12	51257636						
Layer: Silver Paint			ND				
Layer: Off-White Semi-Fibrous Material			ND				
Layer: Silver Paint			ND				
Layer: Grey Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (2 %)							



Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.



Client No.: 7238
 FCG Environmental
 (Forbess Consulting Group, Inc.)
 1009 Mercer Avenue
 Ojai, CA 93023

PO/Job#: **Oxnard UHSD-35** Date: **8-9-19**

Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day

PCM: NIOSH 7400A / NIOSH 7400B Rotometer

PLM: Standard / Point Count 400 / 1000 / CARB 435

Contact: Alan Forbess, Bill Miller

Phone: (805) 646-1995 Fax: (805) 669-3538

E-mail: aforbess@fcgenviro.com, bmiller@fcgenviro.com

Site: **Channel Islands HS/1400 Raiders Way**

Site Location: **Blkgs B2 + C2**

Comments: **Roof Survey**

Report Via: Fax E-Mail Verbal

TEM Air: AHERA / Yamate2 / NIOSH 7402
 TEM Bulk: Quantitative / Qualitative / Chatfield
 TEM Water: Potable / Non-Potable / Weight %
 TEM Microvac: Qual(+/-) / D5755(str/area) / D5756(str/mass)

IAQ Particle Identification (PLM LAB) PLM Opaques/Soot
 Particle Identification (TEM LAB) Special Project

Metals Analysis: Method:
 Matrix:
 Analytes:

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg. LPM	Total Time	
Samples 1-12 See Attached log			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: **BRF** Date: **8-9-19** Time: **2:00pm**

Shipped Via: Fed Ex DHL UPS US Mail Courier Drop Off Other:

Relinquished By: **[Signature]** Relinquished By: Relinquished By:

Date / Time: **8-9-19 4:00pm** Date / Time: Date / Time:

Received By: **[Signature]** Received By: Received By:

Date / Time: **8-12-19 9:05am** Date / Time: Date / Time:

Condition Acceptable? Yes No Condition Acceptable? Yes No Condition Acceptable? Yes No

FCG Environmental

Asbestos Bulk Sampling Field Log

Date:	8-9-19
Client:	OUHSD
Site:	Channel Islands HS
Project:	OUHSD-35
Inspector(s):	BRF
Area/Unit:	Bldgs. B + C

Friable: Friability Codes: N=Non-friable; F=Friable

Cond: Condition Codes: G=Good; F=Fair; P=Poor

NA=Not Analyzed

ND=Detected

N=Negative

1	Roofing layers w/ stones	Bldgs. B / East side	T/O		N	G
2	↓ ↓	↓ / Middle	↓		↓	↓
3	↓ ↓	↓ / West side	↓		↓	↓
4	Roof Mastics / Beige w/ Silver paint	/ SE 4" Pipe Pen.	50 sf total		N	F
5	↓ ↓ ↓	↓ / North ↓ ↓ ↓	↓		↓	↓
6	↓ ↓ ↓	↓ / SW ↓ ↓ ↓	↓		↓	↓
7	Roofing layers w/ stones	Bldgs. C / East side	T/O		N	G
8	↓ ↓	↓ / Middle	↓		↓	↓
9	↓ ↓	↓ / West side	↓		↓	↓
10	Roof Mastics	/ East Exhaust Fan duct seam	15 sf		N	F
11	↓ ↓ ↓ w/ Silver Paint	/ East South 6" Vent Pipe Pen.	60 sf		↓	↓
12	↓ ↓ ↓	↓ / NW 6" vent pipe Pen.	↓		↓	↓

* PACM - 13 Transite pipes on Bldgs. B

* PACM - 21 Transite pipes on Bldgs. C

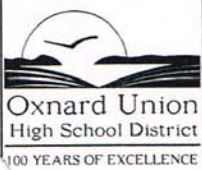
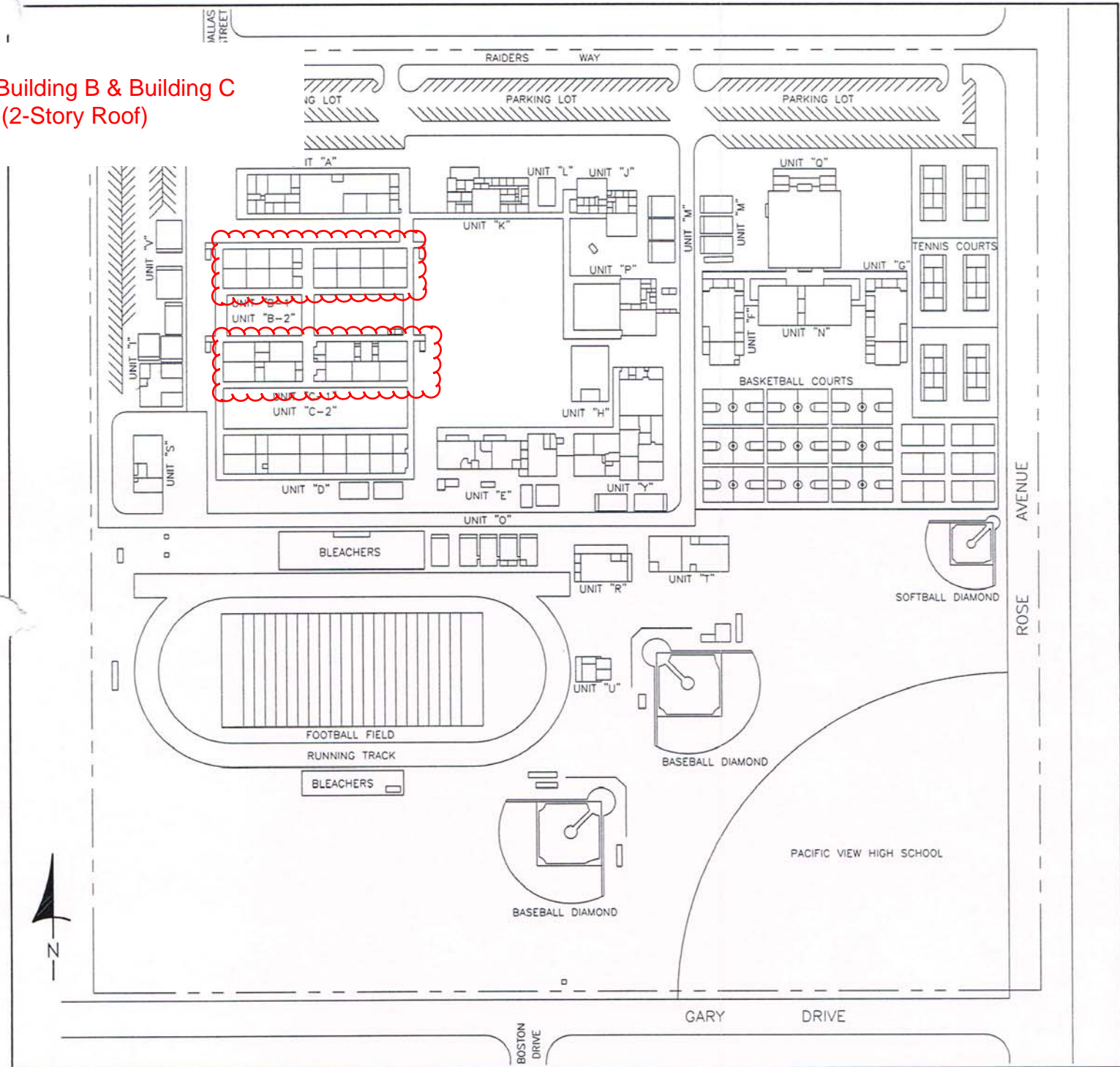
Oxnard Union High School District
 Channel Islands High School, Ventura County

- New Construction
- Modernization/Reconstruction

Diagram of Building Area

- Existing 1-A
- Proposed 2-A
- Final 3-A

**Building B & Building C
 (2-Story Roof)**



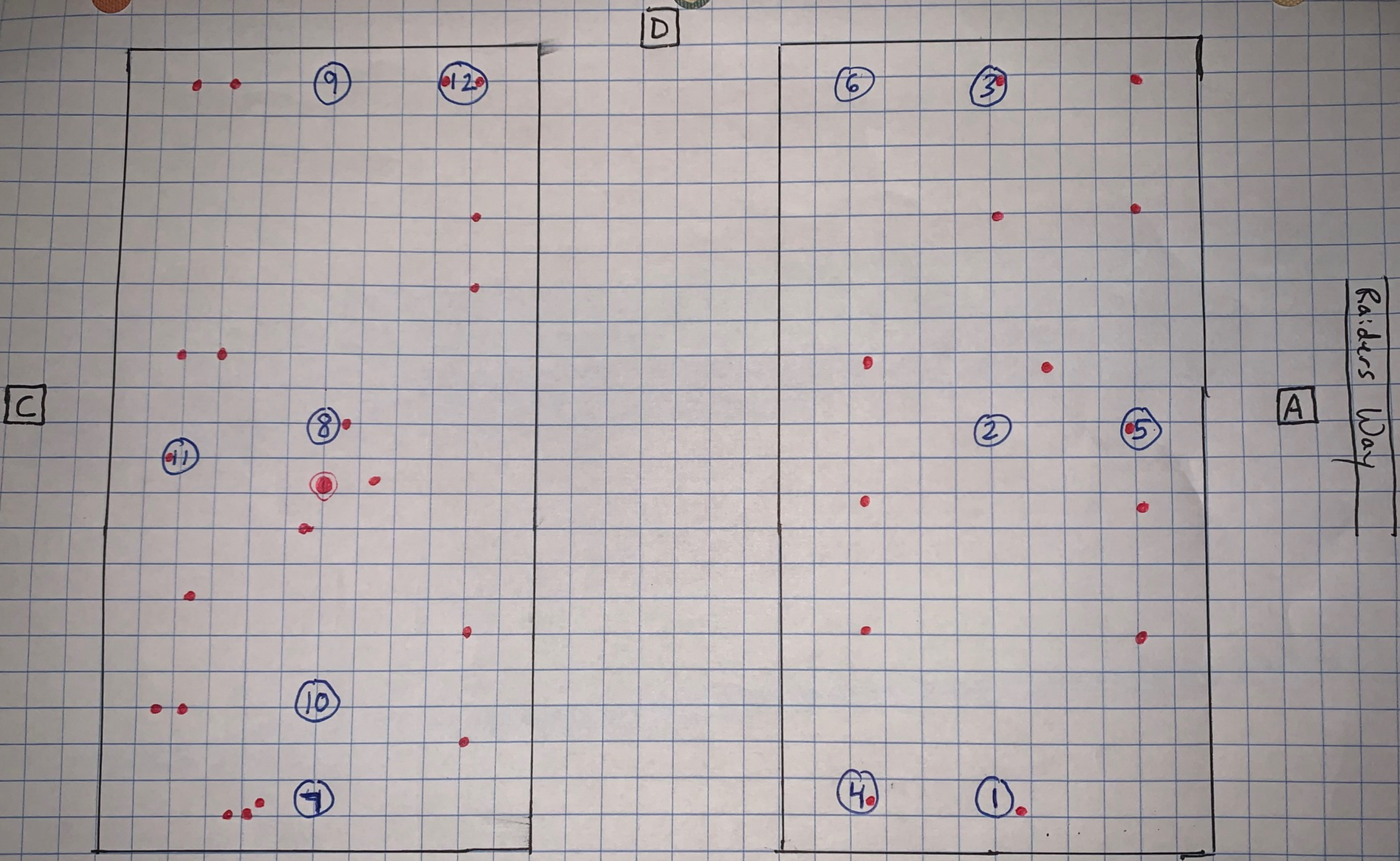
Siteplan
 Channel Islands High School
 1400 East Raiders Way - Oxnard, CA 93033
 Web Site - www.ouhsd.k12.ca.us
 Phone (805) 385-2787 FAX (805) 385-2764

The above is measured in accordance with the laws and regulations governing the State School Building Lease-Purchase Program.
cadxservices@yahoo.com

January 10, 2007
 Scale: 1"=200'-0"
 D.S.A.# 00000
 Page 1 of 91

CIHS 8-9-19 Ouhsd-35

1400 Raiders Way Bldg. B+C



Bldg. C

B

Bldg. B

Transite pipe locations = ●
ASB. Sample locations = ⊕

North →

Raiders Way

Attachment 2

XRF Field Readings from Lead Based Paint Survey

XRF Sampling Methodology



XRF Lead Table - Roofing
Channel Islands High School – Buildings B & C
Oxnard, CA 93033

Component	Substrate	Side	Condition	Color	Floor	Room	Bldg.	Results	Lead mg/cm ²
CALIBRATE								Positive	1
CALIBRATE								Positive	1
CALIBRATE								Positive	1
WALL	PLASTER	A	INTACT	BEIGE	ROOF	OUTSIDE	BLDG C	Negative	0
WALL	PLASTER	B	INTACT	BEIGE	ROOF	OUTSIDE	BLDG C	Negative	0
WALL	PLASTER	C	INTACT	BEIGE	ROOF	OUTSIDE	BLDG C	Negative	0
WALL	PLASTER	D	INTACT	BEIGE	ROOF	OUTSIDE	BLDG C	Negative	0
EAVES	PLASTER	A	INTACT	BEIGE	ROOF	OUTSIDE	BLDG C	Negative	0
EAVES	PLASTER	B	INTACT	BEIGE	ROOF	OUTSIDE	BLDG C	Negative	0
EAVES	PLASTER	C	INTACT	BEIGE	ROOF	OUTSIDE	BLDG C	Negative	0
EAVES	PLASTER	D	INTACT	BEIGE	ROOF	OUTSIDE	BLDG C	Negative	0
FLASHING	METAL	A	POOR	BLUE	ROOF	OUTSIDE	BLDG C	Negative	0.03
FLASHING	METAL	B	POOR	BLUE	ROOF	OUTSIDE	BLDG C	Negative	0.04
FLASHING	METAL	C	POOR	BLUE	ROOF	OUTSIDE	BLDG C	Negative	0.01
FLASHING	METAL	D	POOR	BLUE	ROOF	OUTSIDE	BLDG C	Negative	0.06
PIPE PEN.	METAL	A	FAIR	SILVER	ROOF	OUTSIDE	BLDG C	Negative	0.13
PIPE PEN.	METAL	B	FAIR	SILVER	ROOF	OUTSIDE	BLDG C	Negative	0.1
PIPE PEN.	METAL	C	FAIR	SILVER	ROOF	OUTSIDE	BLDG C	Negative	0.09
PIPE PEN.	METAL	D	FAIR	SILVER	ROOF	OUTSIDE	BLDG C	Negative	0.04
PIPE PEN.	METAL	A	FAIR	SILVER	ROOF	OUTSIDE	BLDG B	Negative	0.13
PIPE PEN.	METAL	B	FAIR	SILVER	ROOF	OUTSIDE	BLDG B	Negative	0.08
PIPE PEN.	METAL	C	FAIR	SILVER	ROOF	OUTSIDE	BLDG B	Negative	0.05
PIPE PEN.	METAL	D	FAIR	SILVER	ROOF	OUTSIDE	BLDG B	Negative	0.06
FLASHING	METAL	A	POOR	BLUE	ROOF	OUTSIDE	BLDG B	Negative	0.09
FLASHING	METAL	B	POOR	BLUE	ROOF	OUTSIDE	BLDG B	Negative	0.04
FLASHING	METAL	C	POOR	BLUE	ROOF	OUTSIDE	BLDG B	Negative	0.12
FLASHING	METAL	D	POOR	BLUE	ROOF	OUTSIDE	BLDG B	Negative	0.05
EAVES	PLASTER	A	INTACT	BEIGE	ROOF	OUTSIDE	BLDG B	Negative	0

XRF Lead Table – Roofing (Continued)

Channel Islands High School – Buildings B & C

Component	Substrate	Side	Condition	Color	Floor	Room	Bldg.	Results	Lead mg/cm ²
EAVES	PLASTER	B	INTACT	BEIGE	ROOF	OUTSIDE	BLDG B	Negative	0
EAVES	PLASTER	C	INTACT	BEIGE	ROOF	OUTSIDE	BLDG B	Negative	0
EAVES	PLASTER	D	INTACT	BEIGE	ROOF	OUTSIDE	BLDG B	Negative	0
WALL	PLASTER	A	INTACT	BEIGE	ROOF	OUTSIDE	BLDG B	Negative	0
WALL	PLASTER	B	INTACT	BEIGE	ROOF	OUTSIDE	BLDG B	Negative	0
WALL	PLASTER	C	INTACT	BEIGE	ROOF	OUTSIDE	BLDG B	Negative	0
WALL	PLASTER	D	INTACT	BEIGE	ROOF	OUTSIDE	BLDG B	Negative	0
CALIBRATE								Positive	1.1
CALIBRATE								Positive	1.1
CALIBRATE								Positive	1

XRF Sampling Methodology: All inspections include a visual inspection of site surfaces to identify painted components and general site conditions. Field testing is performed by a CA Certified Lead Inspector/Assessor using a Niton X-Ray fluorescence (XRF) lead paint analyzer. The XRF sampling method uses a field instrument (X-Ray Fluorescence or XRF gun) to characterize suspect painted surfaces and components. XRF equipment is used to sample materials suspected of being coated with lead-based paint and lead-containing materials by “reading” the suspect materials through direct contact. The advantage of this method is that it provides instantaneous results and is a non-destructive method which allows for the collection of as many samples as time allows for the daily cost of the instrument. This survey method can also identify lead in ceramic tiles, porcelain or other suspect building materials. The survey attempts to define the extent of LBP and estimate quantities where possible. Paint is determined positive using the CA Dept. of Health Services criteria of 1.0 milligrams per square centimeter (mg/cm²). During the survey, the front or main side of the building is typically designated as the “A” side, with the remaining sides designated as “B”, “C” and “D” continuing in a clockwise manner. Where appropriate, a field sketch or plot plan is provided.

Instrument Calibration: The calibration of the Niton XLP 300A X-Ray fluorescence (XRF) instrument is done in accordance with the Performance Characteristic Sheet (PCS) for this instrument. These XRF instruments are calibrated using a calibration standard block of known lead content. Three calibration readings are taken before and after each property is tested to ensure manufacturer’s standards are met. If the inspection is longer than 4 hours, a set of 3 calibration readings must be taken before the 4 hours expires, and then an additional 3 calibration readings taken at the end of the inspection. If for any reason the instruments are not maintaining a consistent calibration reading within the manufacturer’s standards for performance on the calibration block supplied by the manufacturer, manufacturer’s recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

Inspector Training and Qualifications: All inspectors utilized by FCG are Certified Lead Inspectors/Assessors, having obtained certification through the *California Department of Public Health (CDPH)*. All inspectors have taken a State-certified 40-hour Inspector/Assessor course and passed the State Inspector/Assessor Exam. All FCG field personnel have also been trained in the use, calibration and maintenance of the X-Ray Fluorescence (XRF) equipment they currently use, along with necessary principles of radiation safety through a training program provided by the manufacturer.

Equipment Information: The field instrument used on this project was a Niton Model XLP 300A X-Ray fluorescence (XRF) lead paint analyzer (Serial No. 10106). The Niton instrument uses a high performance, electrically-cooled, solid-state detector optimized for lead (Pb) analysis using L-shell and K-shell x-ray detection. This instrument allows for XRF spectrum analysis in the field with automatic Positive/Negative decision and automatic corrections for substrate bias and age of source. All negative classifications in all paint-test modes are verified by negative K-shell x-ray readings. Please see Attachment 2 for a copy of the Performance Characteristic Sheet provided by Niton for the XLP 300A instrument. This document contains detailed information regarding the XRF instrument calibration, inconclusive range or thresholds for various substrates, operating parameters and other information. For more information on the Niton Model XLP 300A instrument, please visit the following website: www.thermo.com/niton

Attachment 3

FCG Inspector Certifications



Alan W. Forbes, Certifications

State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Alan Wayne Forbes

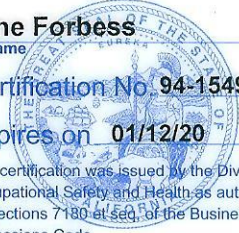
Name



Certification No. **94-1549**

Expires on **01/12/20**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



Alan Forbes

CERTIFICATE TYPE:

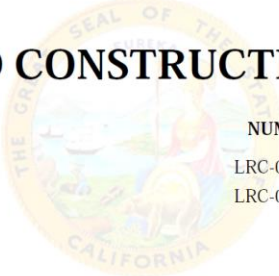
Lead Inspector/Assessor
Lead Project Monitor

NUMBER:

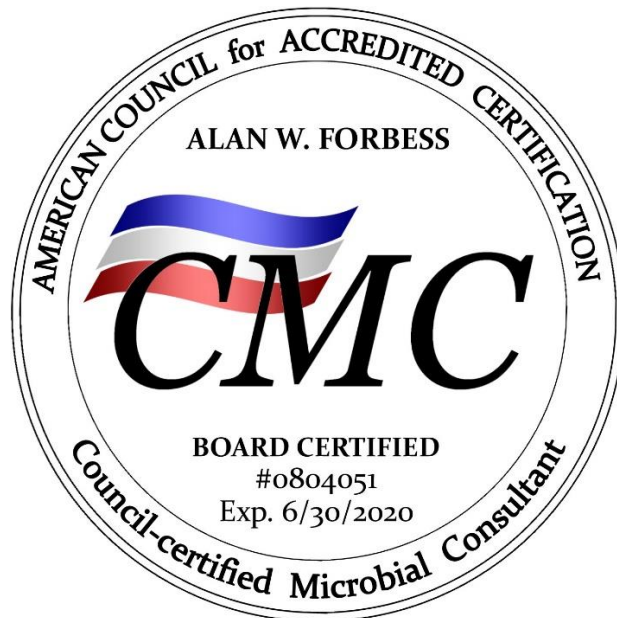
LRC-00000505
LRC-00000504

EXPIRATION DATE:

6/18/2020
6/18/2020



Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clpph or calling (800) 597-LEAD.



Blake Forbess Certifications 2019

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician

Blake R Forbess



Name

Certification No. 18-6328

Expires on 11/15/19

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

State of California Department of Public Health

Lead-Related
Construction
Certificate

Certificate
Type

Expiration
Date

★
Sampling Technician 10/31/2019



Blake R. Forbess

ID #: 28474