

3.1.6 Testing of Containment	
3.1.7 Establishing Emergency Exits.	
3.1.8 Removing Fixtures from Area	
3.1.9 Commencement of Work	
3.1.10 Alternative Procedures	
3.2 Workplace Entry and Exit	
3.3 Respiratory Protection Requirements	
3.4 Removal Procedure	
3.7 Clean-up Procedure	
3.8 Clearance Air Monitoring	
3.9 Disposal Procedures	
3.10 Reestablishment of Area and Systems.	
3.11 Monitoring.	
PART 4 Support Activities	44
4.1 Training	
4.2 Medical Monitoring	
Attachments	49
Attachment A	Scope of Work
Diagrams	53
1.0 ACM to be Abated (Building A)	
1.1 ACM to be Abated (Building C)	

PART 1 - General Information

1.2 Definitions

- 1.2.1 Abatement-Procedures to control fiber release from asbestos-containing materials. Includes removal, encapsulation, enclosure, repair, demolition and renovation activities.
- 1.2.2 ACGIH-American Conference of Governmental Industrial Hygienists
6500 Glenway Ave. Bldg. D-7
Cincinnati, Ohio 45211
- 1.2.3 AIHA-American Industrial Hygiene Association
2700 Prosperity Avenue, Suite 250
Fairfax, VA 22031
- 1.2.3a AQMD - Air Quality Management District
- 1.2.4 Airlock - A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways separated by a distance of at least 3 feet such that one passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through contamination.
- 1.2.5 Air Monitoring - The process of measuring the fiber content of a known volume of air collected during a specific period of time. The procedure normally utilized for asbestos follows the NIOSH Standard Analytical Method for Asbestos in Air Method 7400. For clearance air monitoring, electron microscopy methods may be utilized for lower detectability and specific fiber identification.
- 1.2.6 Air Sampling Professional - The professional contracted or employed by the Building Owner to supervise and/or conduct air monitoring and analysis schemes. This individual may also function as the Asbestos Project Manager, if qualified. Supervision of air sampling and evaluation of results should be performed by an individual Certified in the Comprehensive Practice of Industrial Hygiene (C.I.H.) and having specialized experience in air sampling for asbestos.

Other acceptable Air Sampling Professionals include Environmental Engineers, Architects, Chemists and Environmental Scientists or others with equivalent experience in asbestos air monitoring. This individual shall not be affiliated in any way other than through this contract with the Contractor performing the abatement work. (Air Sampling Professional will be Heidi Barrios, MBA, REHS, IH).

- 1.2.7 Amended Water - Water to which a surfactant has been added.
- 1.2.8 ANSI - American National Standards Institute
1430 Broadway, New York, New York 10018
- 1.2.9 Asbestos means the asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite - grunerite (amosite), anthrophyllite, actinolite and tremolite.
- 1.2.10 Asbestos containing material (ACM) - Material composed of asbestos of any type and in an amount greater than 0.1% by weight, either alone or mixed with other fibrous or non-fibrous materials. (29 CFR 1926.58 and 8 CCR 1529).
- 1.2.11 Asbestos containing waste material - asbestos containing material or asbestos contaminated objects requiring disposal.
- 1.2.12 Asbestos Project Manager (also known as Clerk-of-the-Works or Competent Person). - An individual qualified by virtue of experience and education designated as the Owner's representative and responsible for overseeing the asbestos abatement project. (The Asbestos Project Manager is Steven Uhlman, CIH, Riverside County Environmental Health Department, 951-955-8980).
- 1.2.13 ASTM - American Society for Testing and Materials
916 Race Street
Philadelphia, PA 19103
- 1.2.14 Authorized Visitor - The Building Owner (any designated representatives) and any representative of a regulatory or other agency having jurisdiction over the project.
- 1.2.15 Building Owner - The Owner or his authorized

representative.

- 1.2.16 Certified Industrial Hygienist - (CIH) - An industrial hygienist certified in comprehensive practice by the American Board of Industrial Hygiene. (See Section 1.2.3 for address).
- 1.2.17 Class I Work - Activities involving the removal of TSI and surfacing ACM and presumed ACM.
- 1.2.18 Class II Work - Activities involving the removal of ACM that is not TSI or surfacing material. This includes but is not limited to, the removal of asbestos containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastic.
- 1.2.19 Class III Work - repair and maintenance operations where ACM including TSI and surfacing material is likely to be disturbed.
- 1.2.20 Certified Asbestos Consultant: A person in receipt of a certificate with a Division of Occupational Safety and Health Number. The primary Asbestos Consultant for this project is Steven T. Uhlman, DOSH 93-1228.
- 1.2.21 Clean Room - an uncontaminated area or room that is a part of the worker decontamination enclosure system with provisions for storage for worker's street clothes and clean protective equipment.
- 1.2.22 Contractor - The individual and/or legal entity and its subcontractors and employees of the contractor and subcontractor awarded the contract. (It is recommended that whenever asbestos abatement is part of a larger project, the asbestos work be contracted separately and distinctly from other contract work. When this is not possible, the Contractor is responsible for the proper completion of project activities in accordance with this contract specification even where a subcontractor has been retained to perform the actual abatement.)
- 1.2.23 Curtained doorway - A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing two overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, securing the vertical edge of one sheet along

one vertical side of the doorway and securing the vertical edge of the other sheet along the opposite vertical side of the doorway. Other effective designs are permissible.

- 1.2.24 Decontamination Enclosure System - A series of connected rooms, separated from the work area and from each other by air locks, for the decontamination of workers and equipment.
- 1.2.25 Demolition - The wrecking or taking out of any load supporting structural member of a facility together with any related handling operations.
- 1.2.26 DOSH - Division of Occupational Safety and Health number given to Certified Asbestos Consultants.
- 1.2.27 Encapsulant - A liquid material which can be applied to asbestos containing material which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).
- 1.2.28 Encapsulation - The application of an encapsulant to asbestos containing materials to control the release of asbestos fibers into the air.
- 1.2.29 Enclosure - The construction of an airtight, impermeable, permanent barrier around asbestos containing material to control the release of asbestos fibers into the air.
- 1.2.30 EPA - U.S. Environmental Protection Agency
401 M Street S.W.
Washington, D.C. 90460
- 1.2.31 Equipment Decontamination Enclosure System - That portion of a decontamination enclosure system designed for controlled transfer of materials and equipment into or out of the work area, typically consisting of a washroom and holding area.
- 1.2.32 Equipment Room - A contaminated area or room that is part of the worker decontamination enclosure system with provisions for storage of contaminated clothing and equipment.
- 1.2.33 Facility - Any institutional, commercial or industrial structure,

installation, or building.

- 1.2.34 Facility Component - Any pipe, duct, boiler, tank, reactor, turbine, or furnace at or in a facility or any structural member of a facility.
- 1.2.35 Fixed Object - A piece of equipment or furniture in the work area which cannot be removed from the work area.
- 1.2.36 Friable Asbestos - Asbestos containing material which can be crumbled to dust, when dry, under hand pressure.
- 1.2.37 Glovebag Technique - A method with limited applications for removing small amounts of friable asbestos-containing material from HVAC ducts, short piping runs, valves, joints, elbows, and other non-planar surfaces in a non-contained (plasticized) work area. The glovebag assembly is a manufactured or fabricated device consisting of a glovebag (typically constructed of 6 mil transparent polyethylene or polyvinyl chloride plastic), two inward projecting long sleeves, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. All workers who are permitted to use the glovebag technique must be highly trained, experienced and skilled in this method.
- 1.2.38 HVAC - Heating, ventilation and air conditioning system.
- 1.2.39 HEPA Filter - A high efficiency particulate air filter capable of removing particles, 0.3 microns in diameter with 99.97% efficiency.
- 1.2.40 HEPA Vacuum - A vacuum system equipped with HEPA filtration.
- 1.2.41 Holding Area - A chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area. The holding area comprises an airlock.
- 1.2.42 "Monitoring" may include:
- a. Visual inspection for the presence of visible emissions or

- b. Air monitoring performed in accordance with accepted methods.
 - c. Core samples of encapsulated or bridged materials.
- 1.2.43 Movable object - A piece of equipment or furniture in the work area, which can be removed from the work area.
- 1.2.44 NAM - negative air machine
- 1.2.45 Negative Exposure Assessment (NEA) - An assessment conducted for any one specific asbestos job which the asbestos abatement contractor must demonstrate the employee exposures will be below the PEL. The criteria for this assessment must meet requirements of 29 CFR 1926.1101 (f).
- 1.2.46 Negative Pressure Ventilation System - A portable exhaust system equipped with HEPA filtration and capable of maintaining a constant low velocity airflow into contaminated areas from adjacent uncontaminated areas.
- 1.2.47 NESHAPS - The National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).
- 1.2.48 NIOSH - The National Institute for Occupational Safety and Health.
- CDC - NIOSH
Building J N.E. Room 3007
Atlanta, GA 30333
- 1.2.49 Cal-OSHA - Calif. Division of Occupational Safety and Health
P.O. Box 420603
San Francisco, CA 94142
- 1.2.50 Outside Air - The air outside buildings and structures.
- 1.2.51 Plasticize - To cover floors and walls with plastic sheeting or spray-on poly material as herein specified.
- 1.2.52 Prior Experience - Experience required of the contractor on asbestos projects of similar nature and scope to insure capability of performing the asbestos abatement in a satisfactory manner. Similarities shall be in areas related to

material composition, project size, abatement methods required, number of employees and the engineering, work practice and personal protection controls required.

- 1.2.53 "Regulations" shall include but not be limited to:
- a. U.S. Environmental Protection Agency Regulations for Asbestos (Title 40, Code of Federal Regulations, Part 763, Subparts E).
 - b. U.S. Environmental Protection Agency, Office of Toxic Substances, Asbestos-Containing Materials in School Buildings, A Guidance Document, Parts 1 & 2.
 - c. Title 8, CCR 1529, Asbestos.
 - d. 29 CFR Part 1926.58: Asbestos, tremolite, anthophyllite, and actinolite.
 - e. California Labor Code 6501.5: Registration with Occupational Cancer Control Unit.
- 1.2.54 Removal - The stripping of any asbestos containing materials from surfaces or components of a facility.
- 1.2.55 Renovation - Altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or taken out are excluded.
- 1.2.56 Shower Room - A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold or warm running water controllable the tap and suitably arranged for complete showering during decontamination.
- 1.2.57 Staging Area - Either the holding area or some area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the work area.
- 1.2.58 Strip - to take off friable asbestos materials from any part of the facility.
- 1.2.59 Structural Member - Any load-supporting member of a facility, such as beams and load-supporting walls or any non-load-supporting member, such as ceilings and non-load

supporting walls.

- 1.2.60 Surfactant - A chemical wetting agent added to water to improve penetration.
- 1.2.61 Visible Emissions - Any emissions containing particulate asbestos materials that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.
- 1.2.62 Waste Transfer Airlock - A decontamination system utilized for transferring containerized waste from inside to outside of the work area.
- 1.2.63 Wet Cleaning - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other utensils which have been dampened with water and afterwards thoroughly decontaminated or disposed of as asbestos contaminated waste.
- 1.2.64 Work Area - Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area is a work area, which has been sealed, plasticized, and equipped with a decontamination enclosure system. A non-contained work area is an isolated or controlled-access work area, which has not be plasticized nor equipped with a decontamination enclosure system.
- 1.2.65 Worker decontamination enclosure- A decontamination unit/system consisting of a clean room, a shower room, and an equipment room separated from each other and from the work area airlocks and contained doorways. This system is used for all worker entries to and exits from the work area and for equipment and waste pass out for small jobs.

1.3 Scope of Work

- 1.3.1 This specification covers that abatement of exposure to asbestos hazards from building structures and components to meet requirements for total building renovation as listed in 1.3.2. It is the intent of the Contract Documents to show all of the work necessary to complete the project.
- 1.3.2

Remove approximately 1,050 square feet \pm 20 % of sheet vinyl backing/coving glue, transite panels, roof mastic and transite pipes from the Mental Health Facilities buildings A & C (Class II Work).

A detailed description is provided in Attachment A regarding abatement activities

1.4 Description of Work

- 1.4.1 The work specified herein shall be removal and disposal of asbestos containing materials by competent persons trained, knowledgeable and qualified in the techniques of abatement, handling and disposal of asbestos-containing and asbestos-contaminated materials and the subsequent cleaning of contaminated areas, who comply with all applicable Federal, State, and Local regulations and are capable of and willing to perform the work of this contract.

1.5 Applicable Standards and Guidelines

1.5.1 General Requirements

- 1.5.1.1 All work under this contract shall be done in strict accordance with all applicable Federal, State, and Local regulations, standards and codes governing asbestos abatement and any other trade work done in conjunction with the abatement.
- 1.5.1.2 The most recent edition of any relevant regulation, standard, document or code shall be in effect. Where conflict among the requirements or with these specifications exists the most stringent requirements shall be utilized.

1.6 Submittals and Notices

1.6.1 Contractor shall:

1.6.1.1 Prior to Commencement of Work:

- 1.6.1.1.1 Send typewritten notification postmarked or delivered in accordance with Rule 1403, (d)

Requirements (B) Notification, to the appropriate agency, South Coast Air Quality Management District, no later than ten (10) working days prior to the commencement of any on-site project activity. Provide Building Owner with a copy of the notice.

1.6.1.1.2 Submit proof satisfactory to the Building Owner that required permits, site location and arrangements for transport and disposal of asbestos containing waste materials have been made.

1.6.1.1.3 Submit documentation satisfactory to the Building Owner that the Contractor's employees, including foremen, supervisors, any other company personnel or agents who may be exposed to airborne asbestos fibers or who may be responsible for any aspects of abatement activities, have received adequate training that includes, at a minimum, information in Part 4 Section 4.1 of this document.

1.6.1.1.4 When rental equipment is to be used in abatement areas or to transport asbestos contaminated waste, a written notification concerning intended use of the rental equipment must be provided to the rental agency with a copy submitted to the Building Owner.

1.6.1.1.5 Submit a current copy of the Contractor's Asbestos Registration Certificate issued by Cal OSHA Carcinogen Unit.

1.6.1.2

During Abatement Activities

1.6.1.2.2 Submit copies of all transport manifests, trip tickets and disposal receipts for all asbestos waste materials removed from the work area during the abatement process.

1.6.1.2.3 Submit daily, copies of worksite entry logbooks with information on worker and visitor access.

1.6.1.2.4 Submit logs documenting filter changes on respirators, HEPA vacuums and negative pressure ventilation units.

1.6.1.2.7 Post in the clean room area of the worker decontamination enclosure a list containing the names, addresses and telephone numbers of the Contractor, the Building Owner, the Asbestos

Project Officer, the General Superintendent, the Air Sampling Professionals, the testing laboratory and any other personnel who may be required to assist during abatement activities (e.g., Safety Officer, Building Maintenance Supervisor, Energy Conservation Officer).

1.6.1.2.8 Post in the clean room area of the worker decontamination enclosure copies of EPA accreditation for all asbestos abatement workers and supervisor(s).

1.6.1.2.9 Post copies of personal air monitoring sample results.

1.6.2 Owner Shall:

1.6.2.1 During Abatement:

1.6.2.1.1 Submit to the Contractor, results of bulk material analysis and air sampling data collected during the course of the abatement.

1.7 Site Security

- 1.7.1 The work area is to be restricted only to authorized, trained, and protected personnel. These may include the Contractor's employees, employees of Subcontractors, Owner employees and representatives, State and local inspectors and any other designated individuals. A list of authorized personnel shall be established prior to job start and posted in the clean room of the worker decontamination facility.
- 1.7.2 The Contractor shall report entry into the work area by unauthorized individuals immediately to the Building Owner.
- 1.7.3 A log book shall be maintained in the clean-room area of the worker decontamination system. Anyone who enters the work area must record name, affiliation, time in, and time out for each entry.
- 1.7.4 Access to the work area shall be through a single worker decontamination system located at each room. All other means of access (doors, windows, hallways, etc.) shall be blocked or locked so as to prevent entry to or exit from the work area. The only exceptions for this rule are the waste pass-out airlock that shall be sealed except during the removal of containerized asbestos waste from the work area, and emergency exits in case of fire or accident. Emergency exits shall not be locked from the inside, however, they shall be sealed with polyethylene sheeting and tape until needed.
- 1.7.5 Contractor should have control of asbestos work area during abatement operations whenever possible, in order to protect work efforts and equipment.
- 1.7.6 Contractor will have Owner's assistance in notifying building occupants of impending activity and enforcement of restricted access by Owner's employees.

1.8 Emergency Planning

- 1.8.1 Emergency planning and procedures shall be developed by the Contractor prior to abatement initiation and agreed to by Contractor and Owner.
- 1.8.3 Emergency planning shall include written notification of police, fire, and emergency medical personnel of planned abatement activities, work schedule and layout of work area, particularly barriers that may affect response capabilities.
- 1.8.4 Emergency planning shall include considerations of fire, explosion, toxic atmospheres, electrical hazards, slips, trips and falls, confined spaces, and heat related injury. Written procedures shall be developed and employee training in procedures shall be provided.
- 1.8.5 Employees shall be trained in evacuation procedures in the event of workplace emergencies.
 - 1.8.5.1 For non-life-threatening situations - employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers if necessary, before exiting the workplace to obtain proper medical treatment.
 - 1.8.5.2 For life-threatening injury or illness, worker decontamination shall take least priority. After measures to stabilize the injured worker, remove him from the workplace and secure proper medical treatment.
- 1.8.6 Telephone numbers of all emergency response personnel shall be prominently posted in the clean change area and equipment room, along with the location of the nearest telephone.

1.9 Pre-Start Meeting

- 1.9.1 The selected Contractor shall attend a pre-start job meeting (Time and Date to be specified later) at the Riverside County EDA Office, 3403 Tenth St., Ste. 400, Riverside. Attending this meeting will be representatives of the Owner including the Asbestos Project Manager.

- 1.9.2 The Contractor and supervisory personnel who will provide on-site direction of the abatement activities must attend. The Contractor's Air Sampling Professional shall also attend.
- 1.9.3 At this meeting the Contractor shall provide all submittals as required in Section 1.6. In addition, he shall be prepared to provide detailed information concerning:
 - 1.9.3.1 Preparation of work area.
 - 1.9.3.2 Personal protective equipment including respiratory protection and protective clothing.
 - 1.9.3.3 Employees who will participate in the project, including delineation of experience, training and assigned responsibilities during the project.
 - 1.9.3.4 Decontamination procedures for personnel, work area and equipment.
 - 1.9.3.5 Abatement methods and procedures to be utilized.
 - 1.9.3.6 Required air monitoring procedures.
 - 1.9.3.7 Procedures for handling and disposing of waste materials.
 - 1.9.3.8 Procedures for final decontamination and cleanup.
 - 1.9.3.9 A sequence of work and performance schedule.
 - 1.9.3.10 Procedures for dealing with heat stress.
 - 1.9.3.11 Emergency procedures.

PART 2 Materials and Equipment

2.1 Materials

- 2.1.1 General (all abatement projects).
 - 2.1.1.1 Deliver all materials in the original packages, containers, or bundles bearing the name of the

manufacturer and brand name (where applicable).

2.1.1.2 Store all materials subject to damage off the ground, away from wet or damp surfaces and under cover sufficient enough to prevent damage or contamination. Replacement materials shall be stored outside of the work area until abatement is completed.

2.1.1.3 Damaged, deteriorating or previously used materials shall not be used and shall be removed from the worksite and disposed of properly.

2.1.1.4 A minimum of one layer of polyethylene sheeting or spray-on poly material shall be used as needed on exposed walls and floor areas. It shall be a minimum of 6 ml thick.

2.1.1.5 Method of attachment may include any combination of duct tape or other waterproof tape, furring strips, spray glue, staples, nails, screws or other effective procedures capable of sealing adjacent sheets of polyethylene and capable of sealing polyethylene to dissimilar finished or unfinished surfaces under both wet and dry conditions [including the use of amended water].

2.1.1.6 Polyethylene sheeting utilized for worker decontamination enclosure shall be opaque white or black in color and shall be a minimum of 6 ml thick.

2.1.1.7 Disposal bags shall be of 6 mil clear polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b)(i)(iv) or applicable Cal OSHA requirements.

2.2.1.8 Warning signs as required by FED/Cal OSHA.

2.1.2 Removal

2.1.2.1 Surfactant (wetting agent) shall be a 50/50

mixture of polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed in a proportion of 1 fluid ounce to 5 gallons of water or as specified by the manufacturer. (An equivalent surfactant shall be understood to mean a material with a surface tension of 29 dynes/cm as tested in its properly mixed concentration, using ASTM method D1331-56- "Surface and Interfacial Tension of Solutions of Surface Active Agents.")

2.1.2.2 The encapsulating agent to be applied to surfaces from which asbestos containing material has been stripped shall be a good quality latex paint (paint with high viscosity content - at least 60% by weight- and at least 25% by weight of viscosity resin) or an acceptable bridging encapsulant.

2.2 Equipment

2.2.1 General (all abatement projects)

2.2.1.1 Negative pressure ventilation units or negative air machine with 2,000 CFM capacity will be used in the abatement areas. These units will be equipped with HEPA filtration and operated in accordance with ANSI 29.2-79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-83-002 Guidance for Controlling Friable Asbestos-Containing Materials in Buildings Appendix F: Recommended Specifications and Operating Procedures for the Use of Negative Pressure Systems for Asbestos Abatement shall be utilized so as to provide workplace air changes as specified in attached figures.

2.2.1.2 Because of the nature and location of the asbestos containing materials being removed and the anticipation that the contractor can maintain asbestos air levels below an 8 hour TWA of .1 fiber/cc, by following work practices required in these specifications, the following respirators are acceptable for use:

1. Powered air purifying respirators equipped with the HEPA filters and full face pieces (A sufficient supply of charged replacement batteries and filters and a flow test meter shall be available in the clean change area for use with powered air purifying respirators).

2. Air purifying respirators with dual high efficiency (HEPA) filters.

Spectacle kits and eyeglasses must be provided for employees who wear glasses and who must wear full face piece respirators. Respirators shall be provided that have been tested and approved by the National Institute of Occupational Safety and Health for use in asbestos contaminated atmospheres.

2.2.1.4 Full body disposable protective clothing, including head, body, and foot coverings (unless using footwear as described in 2.2.1.6) consisting of material impenetrable by asbestos fibers (Tyvek or equivalent) shall be provided to all workers and authorized visitors in sizes adequate to accommodate movement without tearing.

2.2.1.5 Additional safety equipment (e.g. hard hats meeting the requirements of ANSI Standard Z89.1-1981, eye protection meeting the requirements of ANSI Standard Z87.1-1979, safety shoes meeting the requirements of ANSI Standard Z41.1-1967, disposable PVC gloves), as necessary shall be provided to all workers and authorized visitors.

2.2.1.6 Non-skid footwear shall be provided to all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.

2.2.1.7 If washable clothing is to be worn underneath disposable protective clothing, it shall be provided by the Contractor to all abatement workers. (It is recommended that washable clothing be a unique, specific color to enable it

to be distinguished from general purpose blue, gray or black coveralls that are commonly worn.) Laundering must occur in accordance with applicable Cal-OSHA requirements or the following procedures, whichever is more stringent:

2.2.1.7.1 Launderers must be trained in proper techniques for handling asbestos contaminated clothing and provided with personal protective equipment consisting of appropriate respirators and disposable clothing for use when needed.

2.2.1.7.2 Machines used for laundering asbestos contaminated clothing shall be isolated and restricted for such use.

2.2.1.7.4 Dryers shall be isolated and restricted for use with asbestos contaminated fabrics and have HEPA filtered exhaust.

2.2.1.7.5 Machine maintenance shall be performed by protected individuals (as per 2.2.1.7.1)

2.2.1.8 A sufficient supply of disposable mops, rags and sponges for work area decontamination shall be available.

2.2.2 Removal

2.2.2.1 A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g. scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be provided as needed.

2.2.2.2 Sprayers with pumps capable of providing 500 pounds per square inch (psi) at the nozzle tip at a flow rate of 2 gallons per minute for spraying amended water.

2.2.2.3 Rubber dustpans and rubber squeegees shall be provided for cleanup.

2.2.2.4 Brushes utilized for removing loose asbestos containing material shall have nylon or fiber bristles, not metal.

2.2.2.5 A sufficient supply of HEPA filtered vacuum systems shall be available during cleanup.

2.2.2.6 Garden hose sprayers or nozzles shall not be present within the work area.

2.2.3 Encapsulation

2.2.3.1 Encapsulants shall be sprayed using airless spray equipment. Nozzle pressure should be adjustable within the 400 to 1500 psi range.

2.2.3.3 The nature of the encapsulant may affect the requirements for respiratory protection. Vapors that may be given off during encapsulant application must be taken into account when selecting respirators, if types other than air supplied are used.

2.3 Substitutions

2.3.1 Approval Required

2.3.1.1 The Contract is based on the materials, equipment and methods described in the Contract Documents.

2.3.1.2 The Building Owner will consider proposals for substitutions of materials, equipment and methods only when such proposals are accompanied by full and complete technical data and all other information required by the Owner to evaluate the proposed substitution.

2.3.1.3 Do not substitute materials, equipment or methods unless the Building Owner has specifically approved such substitution for this work.

2.3.2 "Or equal"

2.3.2.1 Where the phrase "or equal" or "or equal as approved by the Owner" occurs in the Contract Document, do not assume that materials, equipment or methods will be approved by the Owner unless the item has been specifically approved for this work by the Owner.

2.3.2.2 The decision of the Owner shall be final.

2.3.3 Availability of specified items.

2.3.3.1 Verify prior to bidding that all specified items will be available in time for installation during orderly and timely progress of the work.

2.3.3.2 In the event that specified items will not be so available, notify the Owner prior to receipt of bids.

2.3.3.3 Costs of delays because of non-availability of specified items, when the Contractor could have avoided such delays, will be back-charged as necessary and shall not be borne by the Owner.

PART 3 - Execution

3.1 Preparation

3.1.1 Work Areas

3.1.1.1 Contractor shall post caution signs meeting the specifications of Cal-OSHA General Industry Safety Order Section 1529 and FED OSHA - 29 CFR 1926.1101 (k)-Warning Signs at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure. Additional signs may need to be posted following construction of workplace enclosure barriers.

- 3.1.1.2 Contractor, in conjunction with the Owner, shall shut down and lock out electric power to all work areas. Contractor shall provide temporary power and lighting sources, insure safe installation (including ground faulting) of temporary power sources and equipment by compliance with all applicable electrical code requirements and Cal-OSHA requirements for temporary electrical systems. All costs for electric shall be paid for by the Owner.
- 3.1.1.3 Shut down and lock out all heating, cooling and air conditioning system (HVAC) components that are in, supply or pass through the work area. Investigate the work area and agree on pre-abatement condition with Building Owner. Remove all HVAC system filters and place in labeled 6-ml polyethylene bags for staging and eventual disposal as asbestos contaminated waste.
- 3.1.1.4 The Contractor shall provide sanitary facilities for abatement personnel outside of the enclosed work area and maintain them in a clean and sanitary condition throughout the project.
- 3.1.1.5 The Owner will provide water for construction purposes. Contractor shall connect to existing Owner system.
- 3.1.1.6 Preclean all movable objects within the work area using a HEPA filtered vacuum and/or wet cleaning methods as appropriate. After cleaning, these objects shall be removed from the work area and carefully stored in an uncontaminated location.(See Attachments)
- 3.1.1.7 Preclean all fixed objects in the work area using HEPA filtered vacuums and/or wet cleaning techniques as appropriate. Careful attention must be paid to machinery behind grills or gratings where access may be difficult but contamination significant. Also pay particular attention to wall, floor and ceiling penetrations behind fixed items.

- 3.1.1.8 Preclean all surfaces in the work area using HEPA filtered vacuums and/or wet cleaning methods as appropriate. Do not use any methods that would raise dust such as dry sweeping or vacuuming with equipment not equipped with HEPA filters. Do not disturb asbestos containing materials during the pre-cleaning phase.
- 3.1.1.9 Seal off openings between the work area and uncontaminated areas outside of the work area with 6 mil polyethylene sheeting and tape (See Section 3.1.4 - Isolating work area from occupied areas).
- 3.1.1.10 Cover floors in the work area with polyethylene sheeting or spray-on poly material.(as applicable, see attachments).
- 3.1.1.11 Cover Walls in the work area with polyethylene sheeting or spray-on poly material.(As applicable, see attachments)
- 3.1.2 Worker decontamination enclosure systems (Detox Unit)
 - 3.1.2.1 Worker decontamination enclosure systems shall be provided at all locations where workers will enter or exit the work area. One system at a single location for each contained work area is preferred. These systems may consist of existing rooms outside of the work area, if the layout is appropriate that can be enclosed in plastic sheeting and are accessible from the work area. When this situation does not exist, enclosure systems may be constructed out of metal, wood or plastic support as appropriate.
 - 3.1.2.2 Plans for construction, including materials and layout, shall be submitted as shop drawings and approved, by the Building Owner prior to work initiation. Worker decontamination enclosure systems constructed at the worksite shall utilize 6 ml opaque black or white polyethylene sheeting, spray-on poly material, or other acceptable materials for privacy.

Detailed descriptions of portable, pre-fabricated units, if used, must be submitted for the Building Owner's approval. Plans must include floor plan (in accordance with 3.1.2.3) with dimensions, materials, size, thickness, plumbing and electrical utilities.

- 3.1.2.3 The worker decontamination enclosure system shall consist of at least a clean room, a shower room, and an equipment room, each separated from the other and from the work area by airlocks.
- 3.1.2.4 Entry to and exit from all airlocks and decontamination enclosure system chambers shall be through curtained doorways consisting of two sheets of overlapping polyethylene sheeting. One sheet shall be secured at the top and left side, the other sheet at the top and right side. Both sheets shall have weights attached to the bottom to insure that they hang straight and maintain a seal over the doorway when not in use. Doorway designs, providing equivalent protection and acceptable to the Building Owner may be utilized.
- 3.1.2.5 Access between any two rooms in the decontamination enclosure system shall be through an airlock. Pathways into (from clean to contaminated) and out from (contaminated to clean) the work area shall be clearly designated.
- 3.1.2.6 Clean room shall be sized to adequately accommodate the work crew. (Lockers may be provided for valuables in their cars.) Bags for storing respirators shall also be provided in this area. Clean work clothes (if required under disposables), clean disposable clothing, replacement filters for respirators, towels and other necessary items shall be provided for an adequate supply at the clean room. A location for posting notices shall also be provided in this area. Whenever possible, a lockable door shall be used to permit access into the clean room from outside the work area. Lighting, heat and

electricity shall be provided as necessary for comfort. This space shall not be used for storage of tools, equipment or materials, (except as specifically designated) or as office space.

3.1.2.7 Shower room shall contain one or more showers as necessary to adequately accommodate workers. Each shower head shall be supplied with hot and cold water adjustable at the tap. The shower enclosure shall be constructed to ensure against leakage of any kind. An adequate supply of soap, shampoo and towels shall be supplied by the contractor and available at all times. Shower water shall be drained, collected and filtered through a system with at least 0.5-1.0 micron particle size collection capability. (Note: A system containing a series of several filters with progressively smaller pore sizes is recommended to avoid rapid clogging of filtration system by large particles.)

3.1.2.8 The equipment room shall be used for storage of equipment and tools at the end of a shift after they have been decontaminated using a HEPA filtered vacuum and/or wet cleaning techniques as appropriate. Replacement filters (in sealed containers until used) for HEPA vacuums and negative pressure ventilation equipment, extra tools, containers of surfactant and other materials and equipment that may be required during the abatement may also be stored here as needed. A walk-off pan (a small children's swimming pool or equivalent filled with water shall be located in the work area just outside the equipment room for workers to clean off foot coverings after leaving the work area and prevent excessive contamination of the worker decontamination enclosure system. A labeled 6 ml polyethylene bag for collection of disposable clothing shall be located in this room. Contaminated footwear (e.g., rubber boots, other reusable footwear) shall be stored in this area for reuse the following workday.

- 3.1.3 Waste container pass-out airlock (not required, unless contractor deems necessary) and emergency exits.
- 3.1.3.1 The waste container pass-out airlock shall be constructed at some location away from the worker decontamination enclosure system. Wherever possible, this airlock shall be located where there is direct access from the work area to the outside of the building.
 - 3.1.3.2 This airlock system shall consist of an airlock, a container staging area, and another airlock with access to outside the work area.
 - 3.1.3.3 The waste container pass-out airlock shall be constructed in similar fashion to the worker decontamination enclosure system using similar materials and airlock and curtain doorway designs.
 - 3.1.3.4 This airlock system shall not be used to enter or exit the worksite.
 - 3.1.3.5 Emergency exits shall be established and clearly marked with duct tape arrows or other effective designations to permit easy location from anywhere within the work area. They shall be secured to prevent access from uncontaminated areas and still permit emergency exiting. These exits shall be properly sealed with polyethylene sheeting, which can be cut to permit egress if needed. These exits may be the worker decontamination enclosure, the waste pass-out airlock and/or other alternative exits satisfactory to fire officials.
- 3.1.4 None of the buildings (in which asbestos is to be removed) shall be occupied during asbestos abatement activities.
- 3.1.4.1 The contaminated work area shall be separated from uncontaminated, occupied areas of the building by the construction of air tight barriers.

3.1.5 Maintenance of workplace barriers and work decontamination enclosure systems.

3.1.5.2 All polyethylene barriers inside the workplace, in the worker decontamination enclosure system, in the waste container pass-out airlock, and at partitions constructed to isolate the work area from occupied areas shall be inspected at least twice daily, prior to the start of each day's abatement activities and following the completion of the day's abatement activities. Document inspection and observations in the daily project log.

3.1.5.3 Damage and defects in the enclosure system are to be repaired immediately upon discovery.

3.1.5.4 Use smoke tubes to test the effectiveness of the barrier system when directed by Building Owner.

3.1.5.5 At any time during the abatement activities after barriers have been erected, if visible material is observed outside of the work area or if damage occurs to barriers, work shall immediately stop, repairs be made to barriers and debris/residue cleaned up using appropriate HEPA vacuuming and wet mopping procedures.

3.1.5.6 If air samples collected outside of the work area during abatement activities indicate airborne fiber concentrations greater than 0.01 f/cc or pre-measured background levels (whichever is lower) work shall immediately stop for inspection and repair of barriers. Cleanup of surfaces out of the work area using HEPA vacuums or wet cleaning techniques may be necessary.

3.1.5.7 Install and initiate operation of negative pressure ventilation equipment as needed to provide one air change in the work area every 15 minutes or as specified in Figure 1 (See

Section 2.2.1.1). Openings made in the enclosure system to accommodate these units shall be made airtight with tape and/or caulking as needed. If more than one unit is installed, they should be turned on one at a time, checking the integrity of wall barriers for secure attachment and need for additional reinforcement. Insure that adequate power supply is available to satisfy the requirements of the ventilating units. Negative pressure ventilation units shall be exhausted to the outside of the building whenever feasible. Twelve inch extension ducting shall be used to reach from the work area to the outside when required. Careful installation, air monitoring and daily inspections shall be done to insure that the ducting does not release fibers into uncontaminated building areas.

3.1.5.8 Make-up air openings are to be installed as indicated in Attachments. Plastic flaps shall be installed over the openings. Prior to shutting down the asbestos abatement ventilation system, the flaps are to be sealed shut.

3.1.5.9 A minimum of -0.02 column inches of water pressure differential, relative to the outside pressure shall be maintained. A manometer shall be used for an indicator of this condition.

3.1.6 Once constructed and reinforced as necessary, with negative pressure ventilation units in operation as required, test enclosure for leakage utilizing smoke tubes. Repair or reconstruct as needed.

3.1.7 Clearly identify and maintain emergency and fire exits from the work area.

3.1.8 Remove, clean and enclose in polyethylene or spray-on poly material the ceiling mounted objects such as lights and other items that may interfere with the abatement process and were not previously cleaned and sealed off. Utilize localized spraying of amended water and/or HEPA vacuums to reduce fiber dispersal during the removal of these fixtures.

3.1.9 Commencement of work shall not occur until:

- 3.1.9.1 Enclosure systems have been constructed and tested.
- 3.1.9.2 Negative pressure ventilation systems are functioning adequately.
- 3.1.9.3 All pre-abatement submissions, notifications, postings and permits have been provided and are satisfactory to the Building Owner (See Section 1.6).
- 3.1.9.4 All equipment for abatement, clean-up and disposal are on hand.
- 3.1.9.5 All workers training are completed.
- 3.1.9.6 Contractor receives written permission from Building Owner to commence abatement.

3.1.10 Alternative Procedures

- 3.1.10.1 Procedures described in this specification are to be utilized at all times.
- 3.1.10.2 If specified procedures cannot be utilized, a request must be made in writing to the Building Owner providing details of the problem encountered and recommended alternatives.
- 3.1.10.3 Alternative procedures shall provide equivalent or greater protection than procedures that they replace.
- 3.1.10.4 Any alternative procedure must be approved in writing by the Building Owner prior to implementation.

3.2 Workplace Entry and Exit Procedures

3.2.1 Personnel entry and exit.

- 3.2.1.1 All workers and authorized personnel shall enter the work area through the worker decontamination enclosure system.

- 3.2.1.2 All personnel who enter the work area must sign the entry log, located in the clean room, upon entry and exit.
- 3.2.1.3 All personnel, before entering the work area, shall read and be familiar with all posted regulations, personal protection requirements (including workplace entry and exit procedures) and emergency procedures. A sign-off sheet shall be used to acknowledge that these have been reviewed and understood by all personnel prior to entry.
- 3.2.1.4 All personnel shall proceed first to the clean room, remove all street clothes and appropriately don respiratory protection (as deemed adequate for the job conditions) and washable and/or disposable coveralls, head covering and foot covering. Hard hats, eye protection and gloves shall also be utilized if required. Clean respirator and protective clothing shall be provided and utilized by each person for each separate entry into the work area.
- 3.2.1.5 Personnel wearing designated personal protective equipment shall proceed from the clean room through the shower room and equipment room to the main work area.
- 3.2.1.6 Before leaving the work area all personnel shall remove gross contamination from the outside of respirators and protective clothing by brushing and/or wet wiping procedures. (Small HEPA vacuums with brush attachments may be utilized for this purpose, however, larger machines may tear the suits.) Each person shall clean bottoms of protective footwear in the walk-off pan just prior to entering the equipment room.
- 3.2.1.7 Personnel shall proceed to equipment room where they remove all protective equipment except respirators. Deposit disposable (and washable) clothing into appropriately labeled containers for disposal (and laundering).

3.2.1.8 Reusable, contaminated footwear shall be stored in the equipment room when not in use in the work area. Upon completion of abatement it shall be disposed of as asbestos contaminated waste (Rubber boots may be decontaminated at the completion of the abatement for reuse.)

3.2.1.9 Still wearing respirators, personnel shall proceed to the shower area, clean the outside of the respirators and the exposed face area under running water prior to removal of respirator then shower and shampoo to remove residual asbestos contamination. Various types of respirators will require slight modification of these procedures. An airline respirator with HEPA filtered disconnect protection may be disconnected in the equipment room and worn into the shower. A powered air-purifying respirator face piece will have to be disconnected from the filter/power pack assembly that is not waterproof, upon entering the shower. A dual cartridge respirator may be worn into the shower.

3.2.1.10 After showering and drying off, proceed to the clean room and don clean, disposable (and/or washable) clothing if there will be later re-entry into the work area or street clothes if it is the end of the work shift.

3.2.1.11 These procedures shall be posted in the clean room and equipment room.

3.2.2 Waste Container pass-out procedures.

3.2.2.1 Asbestos contaminated waste that has been containerized shall be transported out of the work area through the worker decontamination enclosure if a separate airlock has not been constructed.

3.2.2.2 Waste pass-out procedures shall utilize two teams of workers, an "inside" team and an "outside" team.

3.2.2.3 The inside team wearing appropriate protective clothing and respirators for inside the work area shall clean the outside, including bottoms, of properly labeled containers using HEPA vacuums and wet wiping techniques and transport them through the equipment room. No worker from the inside team shall further exit the work area through this shower room airlock.

3.2.2.4 The outside team, wearing different color protective clothing and appropriately assigned respirators, shall enter the airlock from outside the work area, enclose the drums or bags in clean, labeled 6 mil polyethylene bags and remove them from the airlock to the outside. No worker from the outside team shall further enter the work area through this airlock.

3.2.2.5 The exit from this airlock shall be secured to prevent unauthorized entry.

3.3 Personnel Protection Requirements

3.3.1 Training

3.3.1.1 Prior to commencement of abatement activities all personnel who will be required to enter the work area or handle containerized asbestos containing materials must have received adequate training in accordance with Part 4 Section 4.1 of this document.

3.3.1.2 Special on-site training on equipment and procedures unique to this job site shall be performed as required.

3.3.1.3 Training in emergency response and evacuation procedures shall be provided.

3.3.2 Respiratory Protection

3.3.2.1 Respiratory protection shall be provided to workers in accordance with the submitted written respiratory protection program, which

includes all items as required by Cal and Fed OSHA. This program shall be posted in the clean room of the worker decontamination enclosure system.

3.3.2.2 Workers shall be provided with personally issued, individually identified (marked with waterproof designations) respirators.

3.3.2.3 The Contractor shall provide an environment not to exceed an asbestos 8hr. TWA of 1 fibers/cc. Thus for this environment employees are minimally required to wear NIOSH approved 1/2 face respirators with dual HEPA filter-cartridges which more than complies with any proposed Cal OSHA regulation. The Contractor can provide his employees with respirators with higher protection factors than required here-in.

Implementation Suggestions:

In the absence of NEA data which substantiates exposure levels below the PEL for a similar job within the last 12 months, a supplied air respirator system meeting 29 CFR 1926.1101 requirements will be used during Class I abatement activities until personal exposure levels are below the PEL (0.1 fibers/cc).

The following good work practices shall be implemented:

Use of negative pressure ventilation; HEPA vacuuming debris where needed; the wetting of asbestos containing material prior to abatement (where applicable), misting the work area to help fibers settle out (where applicable, see attachments), removal in small sections, and proper clean-up and containerization.

3.3.2.4 Fit Testing

3.3.2.4.1 Workers must perform positive and negative air pressure fit tests

each time a respirator is put on, whenever the respirator design so permits. Powered air-purifying respirators shall be tested for adequate flow as specified by the manufacturer.

3.3.2.4.2 Workers shall be given a qualitative fit test in accordance with procedures detailed in the Cal OSHA requirements for all respirators to be used on this abatement project. An appropriately administered quantitative fit test may be substituted for the qualitative fit test.

3.3.2.4.3 Documentation of adequate respirator fit must be provided to the Building Owner.

3.3.2.5 No one wearing a beard shall be permitted to don a respirator and enter the work area.

3.3.2.6 Additional respirators (minimum of 2 of each type) and training on their donning and use available at the work site for authorized visitors who may be required to enter the work area.

3.3.3 Protective Clothing

3.3.3.1 Disposable clothing including head, foot and full body protection shall be provided in sufficient quantities and adequate sizes for all workers and authorized visitors.

3.3.3.2 (Washable clothing, if required, shall be provided in sufficient quantities and adequate sizes for all workers and authorized visitors.)

3.3.3.3 Hard hats, protective eyewear, gloves, rubber boots and/or other footwear shall be provided as required for workers and authorized visitors. Safety shoes may be required for some activities.

3.4 Removal Procedures

- 3.4.1 Clean and isolate the work area in accordance with Section 3.1 (and with attachments).
- 3.4.2 Wet all asbestos containing material with an amended water solution using equipment capable of providing a fine spray mist, in order to reduce airborne fiber concentrations when the material is disturbed. Saturate the material to the substrate, however, do not allow excessive water to accumulate in the work area. Keep all removed material wet enough to prevent fiber release until it can be containerized for disposal. Maintain high humidity in the work area by misting or spraying to assist in fiber settling and reduce airborne concentrations. Wetting procedures are not equally effective on all types of asbestos containing materials but, shall none-the-less be used in all cases.
- 3.4.3 Saturated asbestos containing material shall be removed in manageable sections. Removed material should be containerized before moving to a new location for continuance of work. Surrounding areas shall be periodically sprayed and maintained in a wet condition until visible material is cleaned up.
- 3.4.4 Material removed from building structures or components shall not be dropped or thrown to the floor. ACM in HVAC room and Heater Room shall be scraped wet into hand held trays. Material should be removed as intact sections or components whenever possible and carefully lowered to the floor.
- 3.4.5 Containers (6 ml polyethylene bags or drums) shall be sealed when full. (Wet material can be exceedingly heavy. Double bagging of waste material is usually necessary. A determination of need for single or double bags must be made early in the abatement process and agreed to by the Building Owner.) Bags shall not be overfilled. They should be securely sealed to prevent accidental opening and leakage by tying tops of bags in an overhand knot or by taping in a goose neck fashion. Do not seal bags with wire or cord. (Bags may be placed in drums for staging and transportation to the landfill. Bags shall be decontaminated on exterior surfaces by wet cleaning and HEPA vacuuming before being placed in clean drums and sealed with locking ring tops.)

- 3.4.8 After completion of all stripping work, surfaces from which asbestos containing materials have been removed shall be wet brushed and sponged or cleaned by some equivalent method to remove all visible residues.
- 3.4.9 Clean-up shall proceed in accordance with Section 3.7.
- 3.4.10 After the work area has been rendered free of visible residues, a thin coat of a satisfactory encapsulating agent shall be applied to all surfaces in the work area including structural members, building components and plastic sheeting on walls, floors and covering non-removable items, to seal in non-visible residue. In addition after removal, the air shall be scrubbed with bridging encapsulant in each abatement area (as applicable, see attachments).

3.7 Clean-up Procedure

- 3.7.1 Remove and containerize all visible accumulations of asbestos containing material and asbestos contaminated debris utilizing rubber dust pans and rubber squeegees to move material around. Do not use metal shovels to pick up or move accumulated waste. Special care shall be taken to minimize damage to floor sheeting.
- 3.7.2 Wet clean all surfaces in the work area using rags, mops and sponges as appropriate. (Note: Some HEPA vacuums might not be wet-dry vacuums. To pick up excess water and gross wet debris, a wet-dry shop vacuum may be used. This will be contaminated and require cleaning prior to removal from the work area.)
- 3.7.3 Remove the plastic sheeting from walls and floors.
- 3.7.5 Remove all containerized waste from the work area and decontamination enclosure system.
- 3.7.6 Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence.
- 3.7.7 Inspect the work area for visible residue.
- 3.7.8 The work area shall be cleaned until it is in compliance with State and Local requirements and any more stringent criteria

agreed upon by the Contractor and Owner prior to initiation of abatement activities (criteria should be in the form of visual inspections and airborne fiber concentrations). Additional cleaning cycles shall be provided, as necessary, at no cost to the Building Owner until these criteria have been met.

3.7.9 Following the satisfactory completion of clearance air monitoring, a final visual inspection by the Owner shall insure that no contamination remains in the work area. Unsatisfactory conditions may require additional cleaning and air monitoring. (See Section 3.10 Reestablishment of the work area.)

3.8 Clearance Air Monitoring

3.8.1 Following the completion of clean-up operations, the contractor shall notify the Building Owner that work areas are ready for clearance air monitoring.

3.8.2 The Owner shall then arrange for an Air Monitoring Professional to sample the air in the work area for airborne fiber concentrations.

3.8.3 Aggressive sampling shall be performed. Stationary fans shall be placed in operation during the clearance monitoring. The fans air shall be directed toward the ceiling.

3.8.4 Clearance air sampling will be conducted in accordance with AHERA requirements for all inside areas; PCM analysis will be used for less than 160 square feet or up to 260 linear feet of asbestos and TEM analysis will be used for larger quantities.

3.9 Disposal Procedures

3.9.1 All sealed and labeled bags are to be maintained in area, until the material is to be transported to the disposal site.

3.9.2 Disposal must occur at an authorized site in accordance with regulatory requirements of NESHAP and applicable State and Local guidelines and regulations, including the California State Department of Health Services, Toxic Substances Control Division.

3.9.3 All dump receipts, trip tickets, transportation manifests or

other documentation of disposal shall be delivered to the Building Owner for his records. A recommended record keeping format utilizes a chain of custody form which includes the names and addresses of the Generator (Building Owner), Contractor, pickup site, and disposal site, the estimated quantity of the asbestos waste and type of containers used. The form should be signed by the Generator, the Contractor, and the Disposal Site Operator, as the responsibility for the material changes hands. If a separate hauler is employed, his name, address, telephone number and signature should also appear on the form.

3.9.4 Transportation to the landfill.

3.9.4.1 Once drums, bags and wrapped components have been removed from the work area, they shall be loaded into an enclosed truck for transportation.

3.9.4.2 When moving containers, utilize hand trucks, carts and proper lifting techniques to avoid back injuries. Trucks with lift gates are helpful for raising drums during truck loading.

3.9.4.3 The enclosed cargo area of the truck shall be free of debris and lined with 6 mil polyethylene sheeting or spray-on poly material to prevent contamination from leaking or spilled containers. Floor sheeting shall be installed first and extend up the sidewalls. Wall sheeting shall be overlapped and taped into place.

3.9.4.4 Drums shall be placed on level surfaces in the cargo area and packed tightly together to prevent shifting and tipping. Large structural components shall be secured to prevent shifting and bags placed on top. Do not throw containers into truck cargo area.

3.9.4.5 Personnel loading asbestos containing waste shall be protected by disposable clothing including head, body and foot protection and at a minimum, half-face piece, air-purifying, dual cartridge/respirators equipped with high efficiency filters.

- 3.9.4.6 Any debris or residue observed on containers or surfaces outside of the work area resulting from clean-up or disposal activities shall be immediately cleaned-up using HEPA filtered vacuum equipment and/or wet methods as appropriate.
- 3.9.4.7 Large metal dumpsters shall not be used for asbestos waste disposal. See 3.9.5 Disposal at the landfill (Hauler responsible for complying with these conditions).
- 3.9.5 Disposal at the landfill. (Hauler is responsible for complying with these conditions).
 - 3.9.5.1 Upon reaching the landfill, trucks are to approach the dump location as closely as possible for unloading of the asbestos containing waste.
 - 3.9.5.2 Bags, drums and components shall be inspected as they are off-loaded at the disposal site. Material in damaged containers shall be repacked in empty drums or bags as necessary. (Local requirements may not allow the disposal of asbestos waste in drums. Check with appropriate agency and institute appropriate alternative procedures.)
 - 3.9.5.3 Waste containers shall be placed on the ground at the disposal site, not pushed or thrown out of trucks (weight of wet material could rupture containers).
 - 3.9.5.4 Personnel off-loading containers at the disposal site shall wear protective equipment consisting of disposable head, body and foot protection and, at a minimum, half-face piece, air purifying, dual cartridge respirators equipped with high efficiency filters.
 - 3.9.5.5 Following the removal of all containerized waste, the truck cargo area shall be decontaminated using HEPA vacuums and/or wet methods to meet the no visible residue criteria. Polyethylene sheeting or spray-on poly

material shall be removed and discarded, along with contaminated cleaning materials and protective clothing, in bags or drums at the disposal site.

3.9.5.6 If landfill personnel have not been provided with personal protective equipment for the compaction operation by the landfill operator, Contractor shall supply protective clothing and respiratory protection for the duration of this operation.

3.10 Reestablishment of the Work Area and Systems

- 3.10.1 Reestablishment of the work area shall only occur following the completion of clean-up procedures and after clearance air monitoring has been performed and documented to the satisfaction of the Building Owner.
- 3.10.2 Polyethylene barriers shall be removed from walls and floors at this time, maintaining decontamination enclosure systems and barriers over doors, windows, etc. as required.
- 3.10.4 The Contractor and Owner shall visually inspect the work area for any remaining visible residue. Evidence of contamination will necessitate additional cleaning requirements in accordance with Section 3.7.
- 3.10.5 Additional air monitoring shall be performed in accordance with Section 3.8 if additional clean-up is necessary.
- 3.10.6 Following satisfactory clearance of the work area, remaining polyethylene barriers may be removed and disposed of as asbestos contaminated waste.
- 3.10.7 At the discretion of the Contractor, mandatory requirements for personal protective equipment may be waived following the removal of all barriers.
- 3.10.8 Re-secure mounted objects removed from their former positions during area preparation activities.
- 3.10.9 Relocate objects that were removed to temporary locations back to their original positions.
- 3.10.10 Reestablish HVAC, mechanical and electrical systems in

proper working order. Remove contaminated HVAC system filters and dispose of as asbestos contaminated waste. Decontaminate filter assembly using HEPA vacuums and wet cleaning techniques. Install new filters in HVAC systems. Dispose of old filters.

3.10.11 Repair all areas of damage that occurred as a result of abatement activities.

3.11 Monitoring

3.11.1 Owner reserves the right to perform air and performance monitoring at any time.

3.11.2 Contractor will provide personal air monitoring in accordance with FED and Cal OSHA Regulations. Area and Clearance air monitoring will be conducted by the owner. Sampling results shall be made available to the Owner and Contractor as soon as possible.

3.11.3 Owner may take air samples during each separate operation, 8 hours after work completion, 24 hours after completion and 48 hours after completion. Work shall not be considered complete until all air sampling has been completed and satisfactory levels have been obtained.

3.11.4 Owner shall be authorized to issue a STOP WORK order whenever Contractor's work or protective measures are not in accordance with published regulations or contractual restrictions.

PART 4 Support Activities and Personnel

4.1 Training

4.1.1 Training shall be provided by the Contractor to all employees or agents who may be required to disturb asbestos containing or asbestos contaminated materials for abatement and auxiliary purposes and to all supervisory personnel who may be involved in planning, execution, or inspection of abatement projects. All employees including supervisors shall be certified in accordance with AHERA, State and AQMD regulations.

4.1.2 Training shall provide, at minimum, information on the following topics:

- 4.1.2.1 The health hazards of asbestos including the nature of various asbestos related diseases, routes of exposure, known dose-response relationships, the synergistic relationships between asbestos exposure and cigarette smoking, latency periods for disease and health basis for standards.
- 4.1.2.2 The physical characteristics of asbestos including fiber size, aerodynamic properties, physical appearance and uses.
- 4.1.2.3 Employee personal protective equipment including the types and characteristics of respirator classes, limitations of respirators, proper selection, inspection donning, use, maintenance and storage of respirators, field testing the face-piece-pressure fitting tests), qualitative and quantitative fit testing procedures, variations between laboratory and field fit factors, factors that affect respirator fit (e.g., facial hair), selection and use of disposable clothing, use and handling of washable clothing, non-skid shoes, gloves, eye protection, and hard hats.
- 4.1.2.4 Medical monitoring requirements for workers including required and recommended tests, reasons for medical monitoring, and employee access to records.
- 4.1.2.5 Air monitoring procedures and requirements for workers including description of equipment and procedures, reasons for monitoring, types of samples and current standards with recommended changes and employee access to records.
- 4.1.2.6 Work practices for asbestos abatement including purpose, proper construction and maintenance of air-tight plastic barriers, job set-up of air-locks, worker decontamination systems and waste transfer airlocks, posting of warning signs, engineering controls, electrical and ventilation system lockout, proper working

techniques, waste clean-up, and storage and disposal procedures.

4.1.2.7 Personal hygiene including entry and exit procedures for the work area, use of showers and prohibition of eating, drinking, smoking, and chewing in the work area.

4.1.2.8 Special safety hazards that may be encountered including electrical hazards, air contaminants (Carbon monoxide, wetting agents, encapsulants, materials from Owner's operation), fire and explosion hazards, scaffold and ladder hazards, slippery surfaces, confined spaces, heat stress, and noise.

4.1.2.9 Workshops affording both supervisory personnel and abatement workers the opportunity to see (and experience) the construction of containment barriers and decontamination facilities.

4.1.2.10 Supervisory personnel shall, in addition, receive training or contract specifications, liability insurance and bonding, legal considerations related to abatement, establishing respiratory protection medical surveillance programs, EPA, OSHA, and State recordkeeping requirements, and other topics as requested by the Building Owner.

4.1.3 Training must be provided by individuals qualified by virtue of experience and education to discuss the topic areas in 4.2.

4.1.4 Training is to have occurred within 12 months prior to the initiation of abatement activities.

4.1.5 Contractor must document training by providing date of training, training entity, course outline, and names and qualifications of trainers.

4.2 Medical Monitoring

4.2.1 Medical Monitoring must be provided by the Contractor to any employee or agent that may be exposed to asbestos in

excess of background levels during any phase of the abatement project. The purposes of a medical monitoring program, in addition to meeting the requirements of the law, are to document the state of health of workers for workman's compensation and to determine work relatedness of disease as well as to ensure fitness for duty, particularly ability to wear a respirator. Smokers should be made aware of the synergistic effects of cigarette smoking and asbestos exposure. The medical monitoring program provides the appropriate setting to share this information. Employers should also be aware of the potential cost of this additional risk. Medical monitoring shall include at a minimum the requirements of OSHA 29 CFR 1926.1101 and 8 CCR 1529 (p).

4.2.1.1 A work/medical history to elicit symptomatology of respiratory disease.

4.2.1.2 A chest x-ray (posterior-anterior, 14 x 13 inches) taken by a certified radiology technician and evaluated by a certified B-reader.

4.2.1.3 A pulmonary function test, including forced vital capacity (FVC) and forced expiratory volume at one second (FEV), and FEV/FVC ratio (administered by a NIOSH or A.T.S. Certified Pulmonary Technician and interpreted and compared to standardized normals by a Board Certified Pulmonary Specialist.)

4.2.1.4 Employees shall be given the opportunity to be evaluated by a physician to determine their capability to work safely while breathing through the added resistance of a respirator. (Examining physicians shall be aware of the nature of respiratory protective devices and their contributions to breathing resistance. They shall also be informed of the specific types of respirators the employees shall be required to wear and the work they will be required to perform, as well as special workplace conditions such as high temperatures, high humidity, and chemical contaminants to which they may be exposed. Evaluation of groups of workers should take into consideration epidemiologic principles as suggested by the American Thoracic Society in

their statement on the work relatedness of disease adopted in 1982.)

ATTACHMENT A

Scope of Work

Riverside County Mental Health 9880 County Farm Road, Riverside

1. Asbestos abatement activity for the Mental Health building **A** consists of the following:
 - a. Remove a total approximately 72 square feet \pm 20 % of transite panels below windows from the exterior. (Class II work):
 - b. Remove a total approximately 500 square feet \pm 20 % of 5 inch outer diameter (O.D.) transite pipe buried. (Class II work):
2. Asbestos abatement activity for Mental Health Building **C** consists of the following:
 - a. Removal a total approximately 76 square feet \pm 20 % of transite panels below windows from the exterior. (Class II work):
 - b. Remove a total approximately 200 square feet \pm 20 % of sheet vinyl & brown coving mastic / glue in lobby and kitchen (Class II work):
 - c. Remove a total approximately 200 square feet \pm 20 % of black/gray roofing mastic on seams and penetrations on the roof (Class II work).

The asbestos abatement activity generally is to be done in accordance with the main specifications. The following is included with the main specifications and may modify or change parts of them. Where there appears to be a conflict between the main body of specifications, these attachments will prevail.

GENERAL COMMENTS

- a. The purpose of this project is to abate the asbestos containing material from the six buildings specified at the Mental Health Facilities in accordance with SCAQMD Regulation 1403 prior to demolition activities.
- b. ALL work to include abatement, air monitoring and ACM disposal will be in strict accordance with all applicable Federal, State and Local regulations. Final clearance will be done by visual verification of the abatement.
- c. The asbestos abatement contractor will provide sufficient manpower to complete in the expected time line given. It will include preparation, removal, disposal and encapsulation.
- d. A three stage decontamination unit with showers will be used for **each**

containment area. A "Z" lock entrance will be installed so that upon completion of work, the decontamination units can be moved without disturbing the critical barriers.

e. A minimum of one 2000 CFM negative air machines (NAM) per portion of the floor will be needed for this project and will be moved as needed to provide proper cross ventilation and scrubbing in the containment area during the abatement, post abatement and clearance testing. Approximate positioning of the NAM's along with the necessary makeup air openings is also depicted in the diagrams. These machines will be kept running for at least 8 hours after ACM removal and lock down prior to and during clearance air sampling. All flexible ducts used with the negative air machines will be new and all HEPA vacuums and negative air machines will be permitted by the South Coast Air Quality Management District (see section 1.6.1.1.7).

f. A minimum of - 0.02 column inches of water pressure differential, relative to outside pressure shall be maintained in the containment. A continuously operated manometer with a strip chart recorder or equivalent device will be used to monitor pressure differentials.

g. A minimum of one layer of 6 mil poly on all walls and one layer of 6 ml poly on all floors where acoustical ceiling surfacing removal is conducted shall be used to protect these surfaces within the containment. In addition, a final 4 ml drop sheet shall be placed on the floor and walls.

REMOVAL OF INTERIOR AND EXTERIOR NON FRIABLE ACM

a. Pre-wet (floor coving, roof mastic and transite panels) and remove materials using manual removal tools and dispose of as per instructions in the waste disposal section.

b. The ACM is to be wetted with a wetting agent using an airless sprayer so as to prevent dry removal.

c. Residual fibers are to be encapsulated, after the ACM has been removed. The specific bridging encapsulant is specified in 2.1.2.2, of these specifications. Additionally the air shall be scrubbed as per guidelines provided in section 3.4.10.

d. It will be the contractor's responsibility to ensure proper disposal of all asbestos containing materials including substances used in their removal in accordance with State and Federal requirements. This will include obtaining proper documentation as applicable prior to the start of the abatement project.

ENCAPSULATION

All surfaces from which ACM was removed will be covered with a bridging encapsulant.

DISPOSAL

It will be the contractor's responsibility to ensure proper disposal of all asbestos containing materials including substances used in their removal in accordance with State and Federal requirements. This will include obtaining proper documentation as applicable prior to the start of the abatement project. The following paragraphs provide basic information with regards to disposal.

Disposal (Non-Friable): Manifesting and disposal of skim coat drywall material in accordance with main specifications. Use Hazardous Waste Manifest.

- 1) Asbestos containing skim coat drywall will be double bagged in 6 ml clear plastic bags properly labeled in accordance with 29 CFR 1926.58 (k).

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG
DISEASE HAZARD

- 2) Each double bag will also be identified with the name of the generator and the location where the waste was generated. This requirement is in accordance with NESHAPS (40 CFR Part 61), Section 61.150, Paragraph V.
- 3) Manifesting will be on a HAZARDOUS WASTE DATA FORM (Hazardous Waste Manifest).

PERSONAL PROTECTIVE EQUIPMENT

Protective clothing, equipment and respiratory protection shall be worn during this project.

- a. While in the containment (controlled areas), all abatement team members will wear Tyvek Suits, gloves and proper foot coverings (rubber boots or equivalent). Hoods will be worn (with respirator straps properly secured underneath and not over the hood). Goggles will be used.
- b. The minimum level of a supplied air respirator system meeting 29 CFR 1926.1101 requirements will be used during Class I abatement activities until personal exposure levels are below the PEL (0.1 fibers/cc) in the absence of Negative Exposure Assessment (NEA) data which substantiates exposure levels below the PEL for a similar job within the last 12 months. If an NEA is presented prior to the abatement, either powered air purifying respirators equipped with the HEPA filters and full face pieces or negative half-face air purifying respirators will be acceptable according to what exposure levels were achieved.

c. The minimum level of respiratory protection to be worn during this project will be: half-face air purifying respirators for flooring and drywall material.

PRE-CONSTRUCTION MEETING

The selected contractor's Project Manager and the On-Site Supervisor will attend a Pre-Start Meeting with the Asbestos Project Manager and Riverside County EDA Authority Officials prior to the start of the project but not on the same day as the start of the abatement project. Details of the meeting are provided in paragraph 1.9 of the main specifications.

In accordance with Assembly Bill No. 2040, Section 6(i)503.5 of the Labor Code:

A safety conference shall be held for all asbestos handling jobs prior to the start of the actual work. It shall include representatives of the owner or contracting agency, the contractor, the employer, employees, and employee representatives. It shall include a discussion of the employer's safety program and such means, methods, devices, processes, practices, conditions, or operations as the employer intends to use in providing a safe place of employment.

Diagram 1.0 – ACMB to be Abated

Illustrated are the location, type and square footage of the ACMB locations for future abatement on Building A

- Remove approximately 72 sq. ft. of ACM transite panels below windows,
- Remove approximately 500 sq. ft. of buried ACM transite pipes.

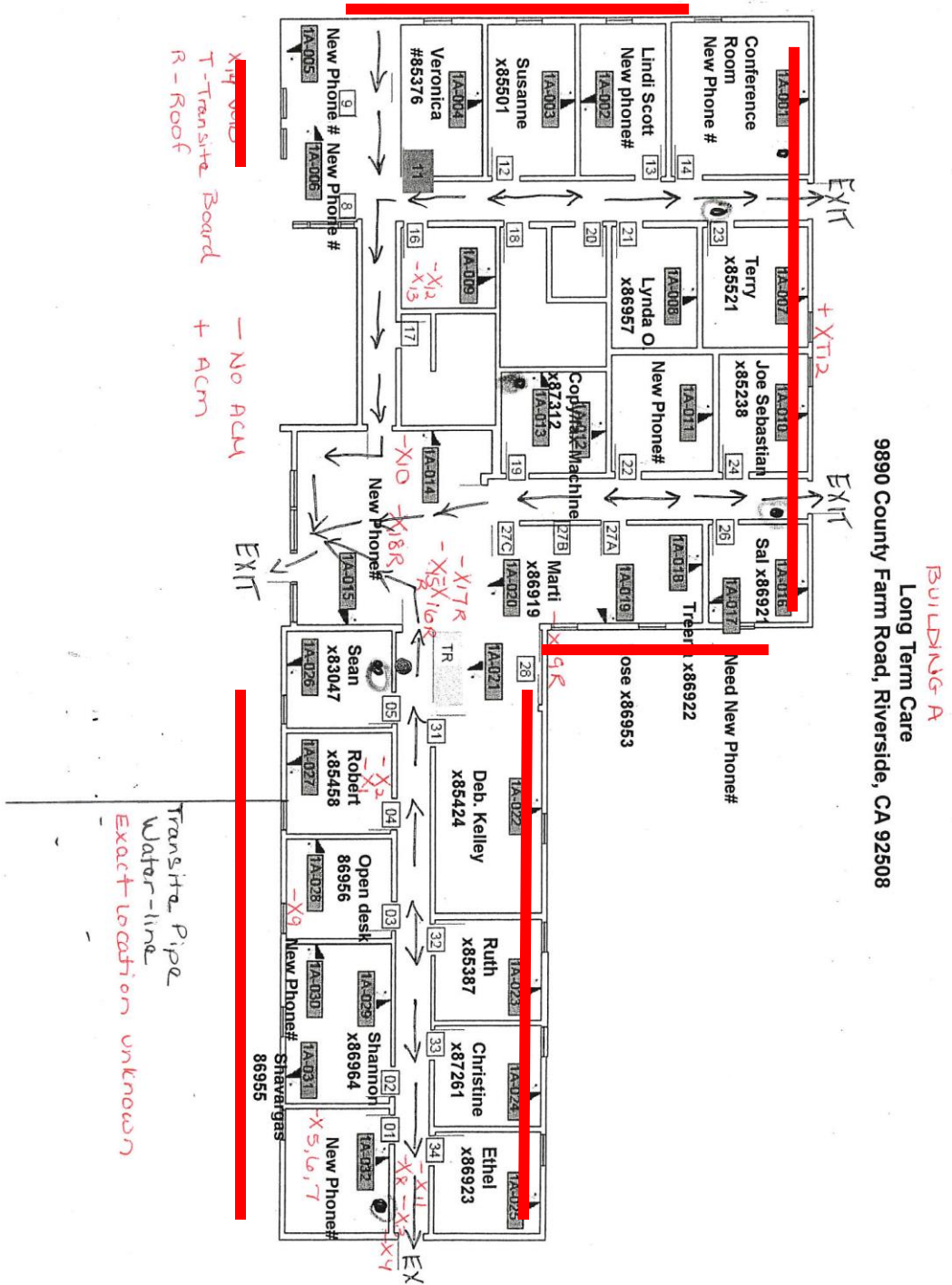
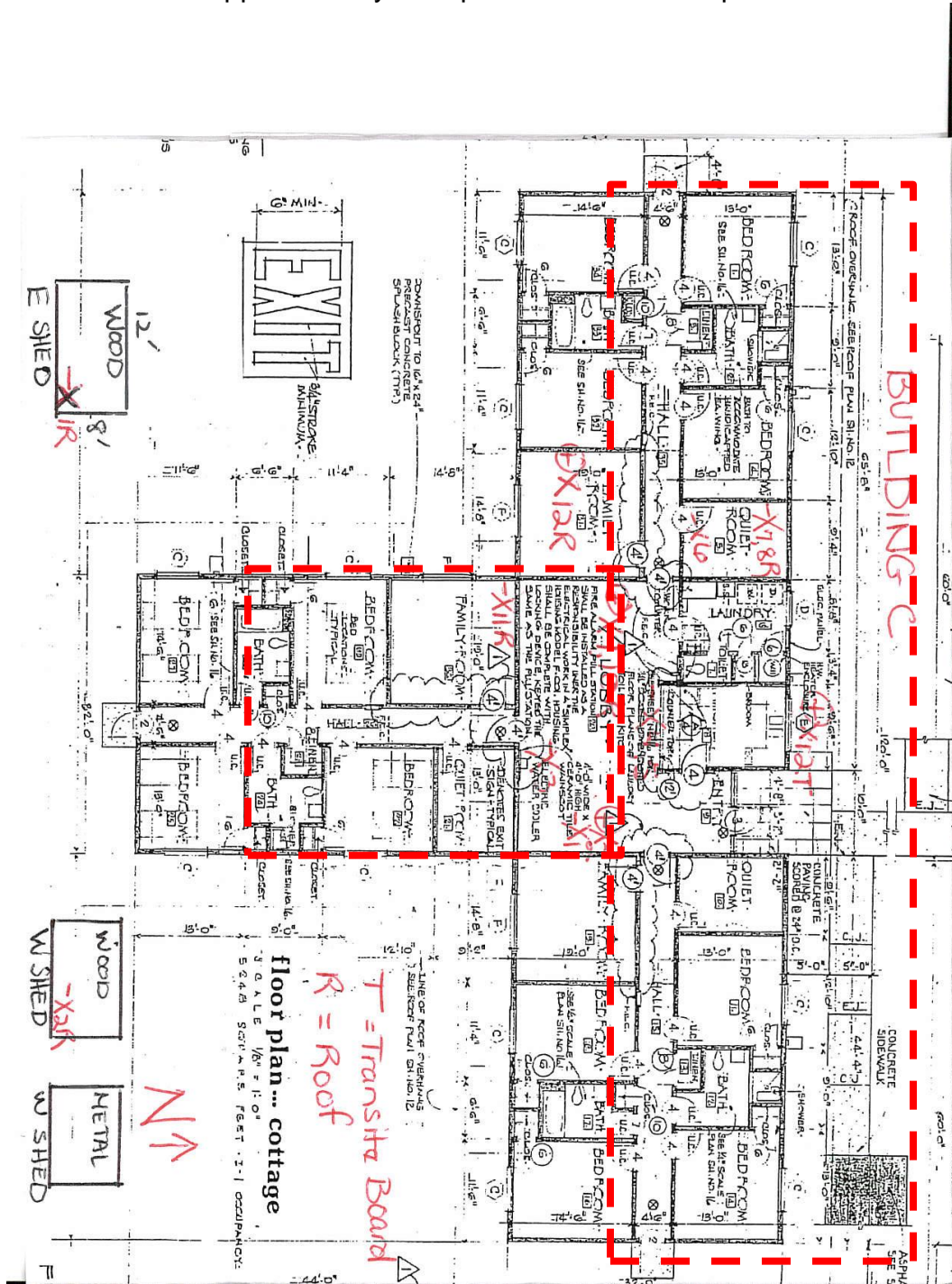


Diagram 1.1 – ACMB to be Abated

Illustrated are the location, type and square footage of the ACMB locations for future abatement on Building C

- Remove approximately 200 square feet of ACM gray sheet vinyl backing and brown floor coving mastic throughout building C.
- Remove approximately 200 sq. ft. of black/ gray roofing mastic on the seams and penetrations on the roof).
- Remove approximately 76 sq. ft. of ACM transite panels below windows,



2015

AQMD ASBESTOS, LIMITED LEAD PAINT & UNIVERSAL WASTE SURVEY

For Riverside County Economic Development Agency
Site: Mental Health Facility
Located at 9890 County Farm Road Riverside, CA
Reference # SR33056



Steven Hinde, REHS, CIH, CAC
County of Riverside, Department of Environmental Health,
Office of Industrial Hygiene
3-6-2015



Table of Contents

Title Page	4
Summary:	5
AQMD ASBESTOS SURVEY	6
1.0 Purpose of Survey:	6
2.0 Sampling Methodology:	7
2.1 Quantity of Samples:.....	7
2.2 Gathering Suspected Asbestos-Containing Material:	7
3.0 Analysis:	7
4.0 Findings:	8
5.0 TABLE 1, Asbestos-Containing Materials (ACM)	8
5.1 Building Materials Not Containing Asbestos	9
6.0 Discussion Concerning Inaccessible Areas:	9
7.0 Conclusion:	9
8.0 Recommendations:	10
Diagram 1: Overall	11
Diagram 1.1 - Asbestos Sampling Points, Building A	12
Diagram 1.2 - Asbestos Sampling Points, Building B	13
Diagram 1.3 - Asbestos Sampling Points, Building C & Sheds	14
Diagram 2.0 – ACBM to be Abated	15
Diagram 2.1 – ACBM to be Abated	16
Asbestos Laboratory Results	17
Photographs	32
LIMITED LEAD BASED PAINT INSPECTION EXECUTIVE SUMMARY	33
Introduction	33
Scope of Work	33
Property Description	33
Inspector’s Qualifications	33
Method of Testing and Protocol	33
Inspector’s Limitations	33
Lead XRF Inspection and Environmental Analysis Final Summary Report	34
XRF-Interior / Exterior Inspection Results:	34

Interior/Exterior XRF Sequential Inspection Report	35
Lead Lab Report.....	44
UNIVERSAL WASTE SURVEY	46
INTRODUCTION	46
Site Description.....	46
Objectives	46
BACKGROUND	46
Universal Waste and Suspect Hazardous Building Materials.....	46
HISTORY	46
Past Use.....	46
Architectural Plans.....	47
SCOPE OF SERVICES	47
Certification & Experience	47
INVESTIGATIVE RESULTS	48
Universal Waste and Suspect Hazardous Building Materials Inventory	48
CONCLUSIONS AND RECOMMENDATIONS	48
REPORT LIMITATIONS	48

Title Page

Reference Number: SR33056

Date of Report: May 7, 2015

Date of Field Evaluation: March 6, 2015

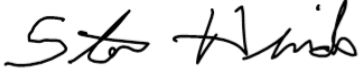
Individual Requesting Evaluation: Frank Gonzales
Facilities Project Manager III
Riverside County,
Economic Development Agency
3403 10th Street, Suite 400
Riverside, CA 92501

Survey Site: Mental Health Facility
9890 County Farm Rd
Riverside, CA 92501

Principal Investigator: Steven D. Hinde, REHS, CIH, CAC
Senior Industrial Hygienist
Office of Industrial Hygiene
Riverside County, Department of
Environmental Health
3880 Lemon Street, Ste. 200
Riverside, California 92501
(951) 955-8980
Certified Asbestos Consultant
DOSH # 94-1352

Staff: Heidi Barrios, MBA, REHS, IH
Lead in Construction Accreditation #24943

Written By: Daisy Ciudad Real, MPH, REHS, IH
Heidi Barrios

Signature: 
Steven D. Hinde
Senior Industrial Hygienist



Summary:

The purpose of this assessment is to determine the amount of asbestos, lead paint and universal waste on the structures which are to be demolished.

A total of forty four bulk (65 analyzed) building material samples were taken for analysis from three Mental Health Facility buildings and two sheds located at 8990 County Farm Road, Riverside. Seven of the samples analyzed were found to contain one percent or greater asbestos. It can be assumed that asbestos transite pipes under the parking lot and ground are present and in inaccessible at this time. The result of the laboratory analysis can be found in Table 1 and in the appendix. Sampling locations and locations of discovered ACM (asbestos containing materials) are illustrated in diagrams 1.1-.1.3 and 2.0 – 2.1. This amounts to approximately 1,050 square feet for the transite pipe, transite panels, roofing mastic, sheet vinyl backing at coving and coving mastic.

Steven Hinde, a certified Asbestos Consultant and a United States Environmental Protection Agency (USEPA) certified building inspector for ACM and Heidi Barrios, a United States Environmental Protection Agency (USEPA) certified building inspector for ACM conducted the inspection on March 6, 2015

See "CONCLUSION" for required actions by the owner and/or responsible party.

Lead based paint was not detected in the Mental Health Facility.

Universal waste was found and tallied. This included fluorescent light bulbs, sodium lamps, TV monitors and chlorofluorocarbon (CFC) refrigerant in heating, ventilation, and air conditioning (HVAC) systems.

AQMD ASBESTOS SURVEY

1.0 Purpose of Survey:

The Clean Air Act required the USEPA to develop and enforce regulations to protect the general public from exposure to airborne contaminants known to be hazardous to human health. The EPA established the National Emission Standards for Hazardous Air Pollutants (NESHAP) under the authority of Section 112 of the Clean Air Act.

The Asbestos NESHAP requires that a thorough asbestos survey be conducted prior to commencement of any renovation or demolition, and specifies that building materials containing greater than 1% asbestos are considered asbestos-containing material. In addition, the provisions of the California Labor Code, Section 6501.8 (b) and Title 8, CCR 341.6 specify that asbestos-containing construction (ACCM) is identified as any manufactured construction material greater than 0.1 % asbestos.

Evaluation of the possible sources of ACM in the accessible areas of the above mentioned structure must be completed in accordance with South Coast Air Quality Management District (AQMD) rule 1403 prior to renovation or demolition of building structures.

2.0 Sampling Methodology:

2.1 Quantity of Samples:

The survey was conducted in accordance with guidelines established by the U.S. EPA in its 1985 publication, *Guidance For Controlling Asbestos Containing Materials in Buildings*, Office of Pesticides and Toxic Substance, EPA 560/5-85-024, and the requirements the Asbestos NESHAP and the local AQMD. Certain aspects of the U.S. EPA's Asbestos Hazard Emergency Response Act (AHERA) bulk sampling protocol were used in the visual inspection to physically assess each sample and to categorize sampled materials.

For friable materials the provisions of 40 CFR 763.107 are followed (minimum of 3 samples for suspected friable building materials).

For non-friable materials [tile, roofing products, vinyl floor coverings, transite sheeting and pipes (may be assumed to be ACM), sheet rock, stucco, etc.] sufficient number of samples based on industrial hygienist experience and judgment shall be taken to determine presence of asbestos. Frequently, one sample may be sufficient for each building material type. If non-friable floor tile contains no asbestos, then mastic will not be analyzed unless project requires partial demolition.

2.2 Gathering Suspected Asbestos-Containing Material:

Each suspect ACM identified was sampled in accordance with sampling guidelines established by USEPA.

First, the suspected material is wetted with water to minimize possible fiber release. Tools are then used to free the suspect material from its substrate. The material is then placed in its own sample bag and labeled with a unique number ("Client's Sample Number"). The samples are then transported to the lab for analysis.

3.0 Analysis:

Asbestos bulk analysis using dispersion staining and polarized light microscopy (PLM) was used. The methodology used is EPA 600/ R-93/116. QuanTEM Laboratories at 2033 Heritage Drive, Oklahoma City, OK is a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory (Lab code 101959). Phone # (405) 755-7272.

4.0 Findings:

Diagram 1 illustrates an overview of the property

Diagrams 1.1 – 1.3 illustrates bulk building sampling locations taken from the structure

Diagrams 2.0 – 2.1 shows the location, type and amount of the ACM to be abated.

Photograph 1- Illustrates ACM transite panels below windows in Building A.

Photograph 2 - Illustrates the roof and roof penetrations on building C.

5.0 TABLE 1, Asbestos-Containing Materials (ACM)

Table 1 lists the samples that contain asbestos (greater than 1% asbestos). The table provides the sample number, diagram number depicting location of the sample, description of the sampled material and percentage of asbestos present.

Building A

Total Non-Friable: Approximately 572 square feet

Sample Number	Description	Diagram Number	% Asbestos
MHA-T-12	Gray Transite panel/ board below windows	2.0	35% Chrysotile
Assumed	Gray Transite Pipe Underground		20% Chrysotile 5% Crocidolite

Note: Not all panels are transite, some are wood. Transite panels were labeled with a "T".

Building C (Safe Haven)

Total Non-Friable: Approximately 476 square feet

Sample Number	Description	Diagram Number	% Asbestos
MHSH-L-2	Gray Sheet Vinyl Backing at coving	2.1	60% Chrysotile
MHSH-L-2a	Brown Mastic on coving	2.1	6 % Chrysotile
MHSH-R-9	Gray/Black Roof Mastic at seams	2.1	10% Chrysotile
MHSH-R-10	Black/ Gray Mastic Roof penetrations	2.1	10% Chrysotile
MHSH-R-12	Black/ Gray Mastic Roof penetrations	2.1	10% Chrysotile
MHSH-T-1	Gray Transite panel/ board below windows	2.1	35% Chrysotile

Note: Not all panels are transite, some are wood. Transite panels were labeled with a "T".

5.1 Building Materials Not Containing Asbestos

The following suspect materials were tested and no asbestos was detected.

Building A & B: ceiling tiles, floor tiles, floor glue and mastics, dry wall, tape and skim coat, roofing and roof mastic.

Building C: ceiling tiles, floor tiles, floor glue and mastics, dry wall, tape and skim coat, and roofing.

Sheds: roof shingles

6.0 Discussion Concerning Inaccessible Areas:

An inspection was made of all accessible areas on the site. Based on the material present at the site it is likely that additional asbestos containing material may be found in inaccessible locations.

An area is considered accessible if it can be fully explored. If the inspector feels it is unsafe to enter an area, or if size considerations restrict entry, the area is considered inaccessible. Speculations on whether an area might contain asbestos are based on the inspector's knowledge and experience.

It is unknown at this time but is assume that there are transite water pipes underground.

7.0 Conclusion:

No asbestos containing materials were detected in Building B or the two sheds.

Asbestos containing materials are present at the sites surveyed. There is approximately 572 sq. ft. of non-friable, transite panels in the building A and assumed buried transite pipes. There is approximately 476 square feet of non-friable, transite panels, sheet vinyl backing / coving mastic and roofing mastic on Building C. Diagrams 2.0 – 2.1 depicts the location, type and amount of ACM.

8.0 Recommendations:

1. Have your demolition contractor fill out an AQMD form completely. The information in Table #1 concerning square footage and friability of ACBM will assist your contractor in filling out the form. You must maintain a copy of asbestos notification to AQMD for two years {Rule 1403 (f) - recordkeeping (I)}.
2. Mail a completed AQMD form to South Coast AQMD.
3. Abate the ACM in accordance with Cal OSHA regulations and AQMD 1403 rule. A registered asbestos abatement contractor must be employed to remove the ACM.

Note: If in the course of renovation, additional ACM is identified (e.g., discovered in inaccessible areas or enclosed walls and ceilings) renovation must cease. The ACM must be kept wet. Demolition activities may continue only after an asbestos abatement contractor has removed the ACM.

Diagram 1: Overall

The diagram illustrates the locations of structures at Mental Health facility located at 9880 County Farm Road, Riverside, CA.

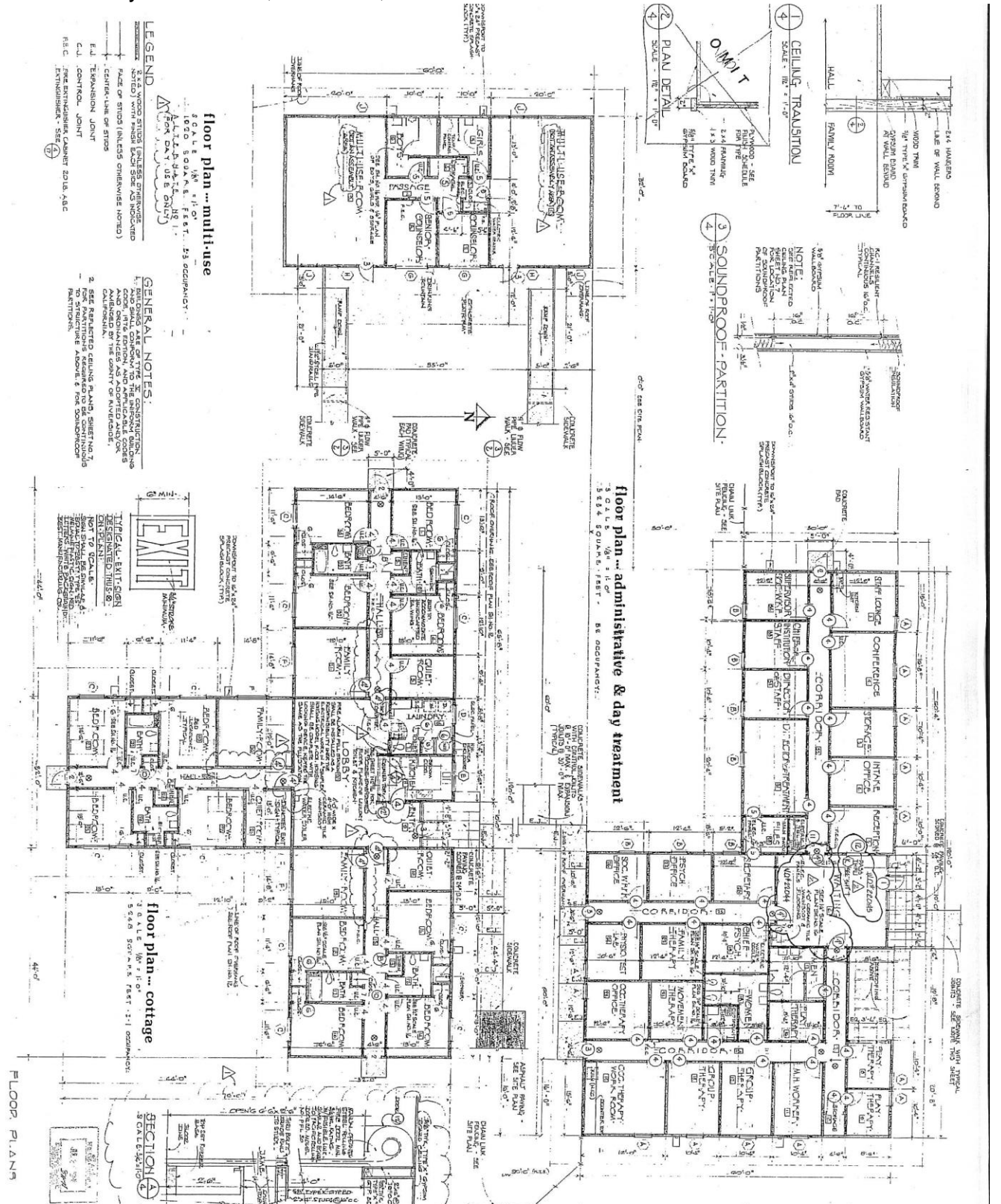


Diagram 1.1 - Asbestos Sampling Points, Building A

An "X" illustrates the locations of samples taken, R indicates a roof sample, + indicates positive ACM sample and - indicates a negative ACM sample

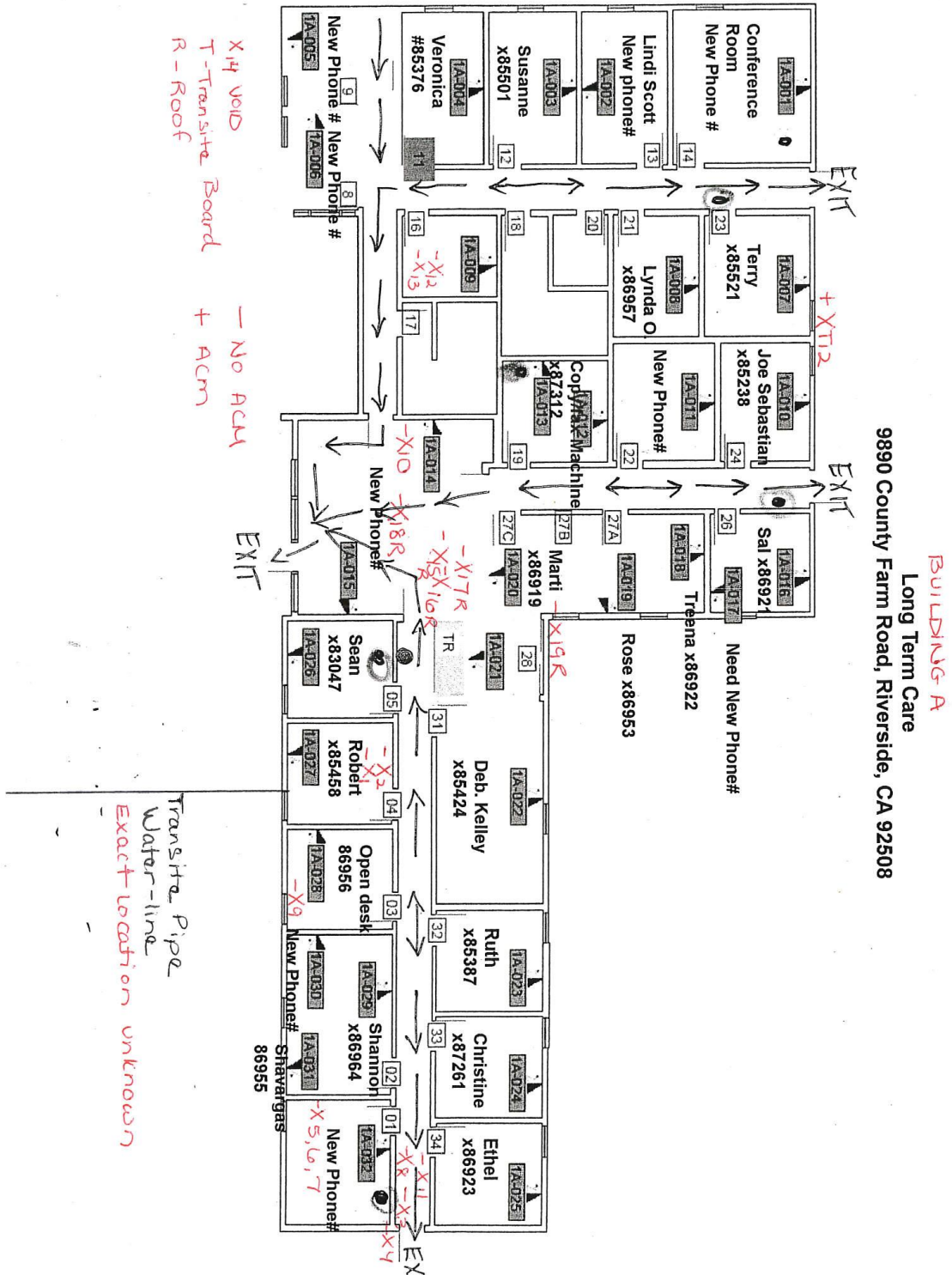


Diagram 1.2 - Asbestos Sampling Points, Building B

An "X" illustrates the locations of samples taken, R indicates a roof sample, + indicates positive ACM sample and - indicates a negative ACM sample

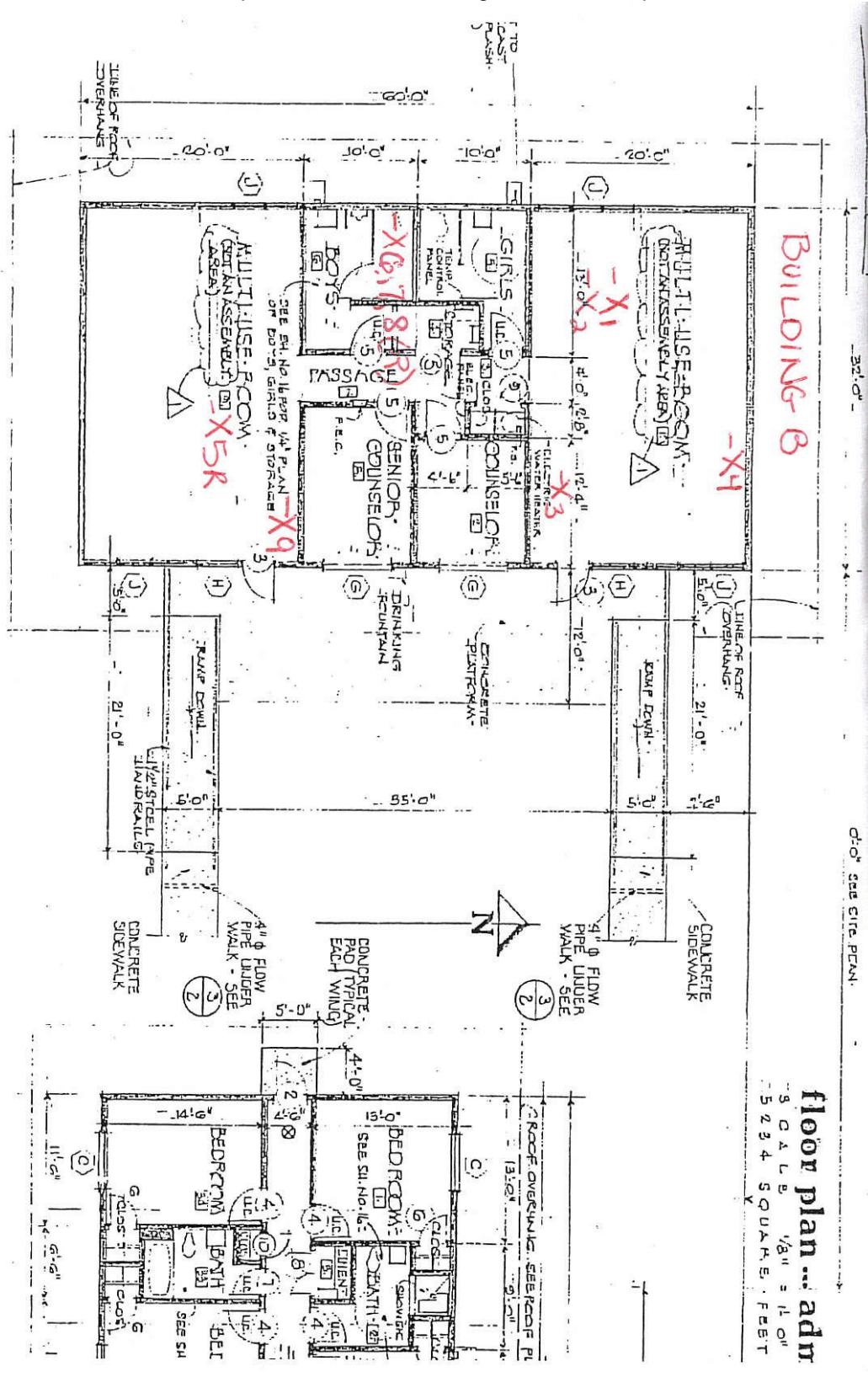


Diagram 1.3 - Asbestos Sampling Points, Building C & Sheds

An "X" illustrates the locations of samples taken, R indicates a roof sample, + indicates positive ACM sample and - indicates a negative ACM sample

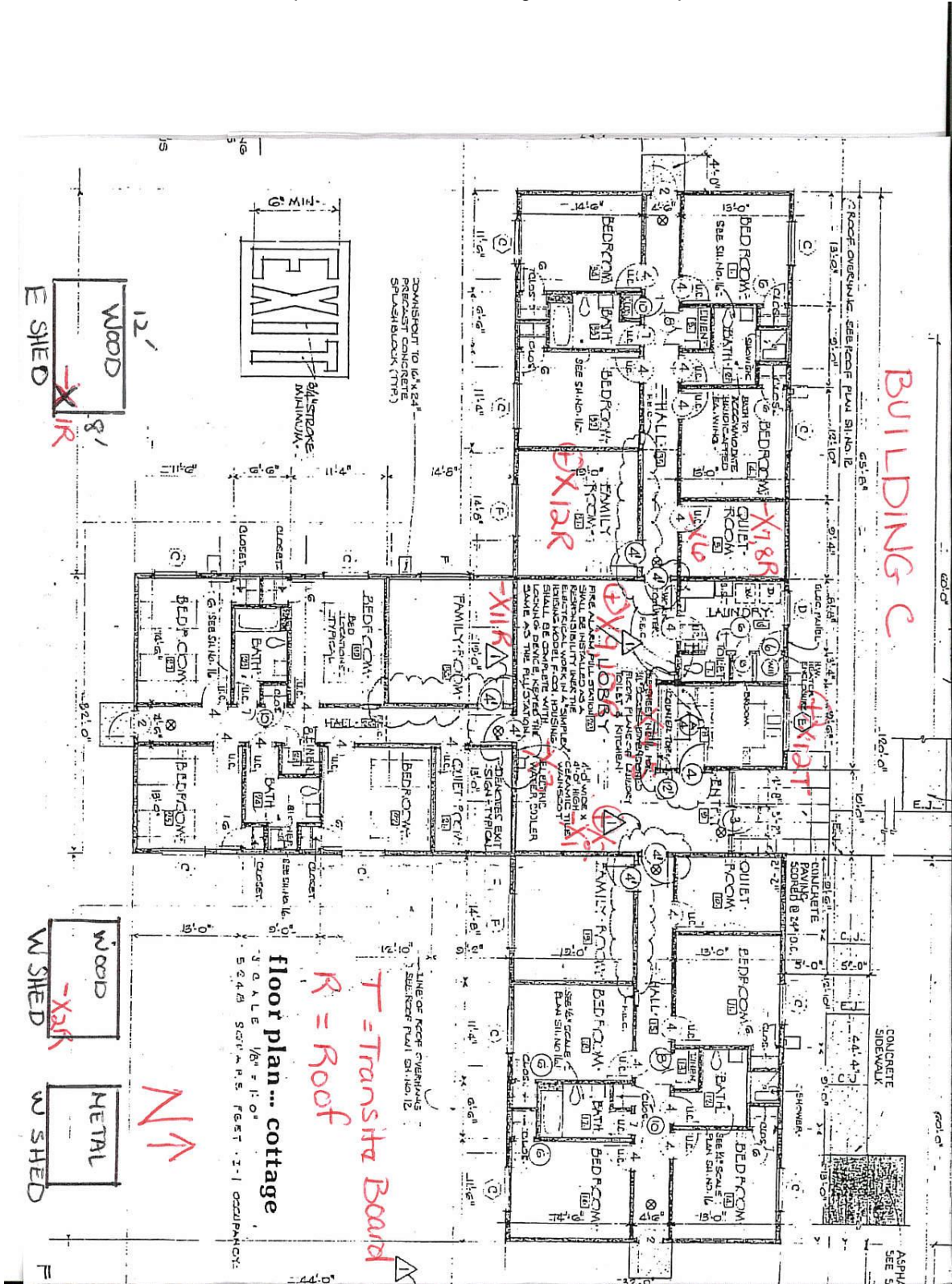


Diagram 2.0 – ACM to be Abated

Illustrated are the location, type and square footage of the ACM locations for future abatement on Building A.

- Remove approximately 72 sq. ft. of ACM transite panels below windows,
- Remove approximately 500 sq. ft. of buried ACM transite pipes.

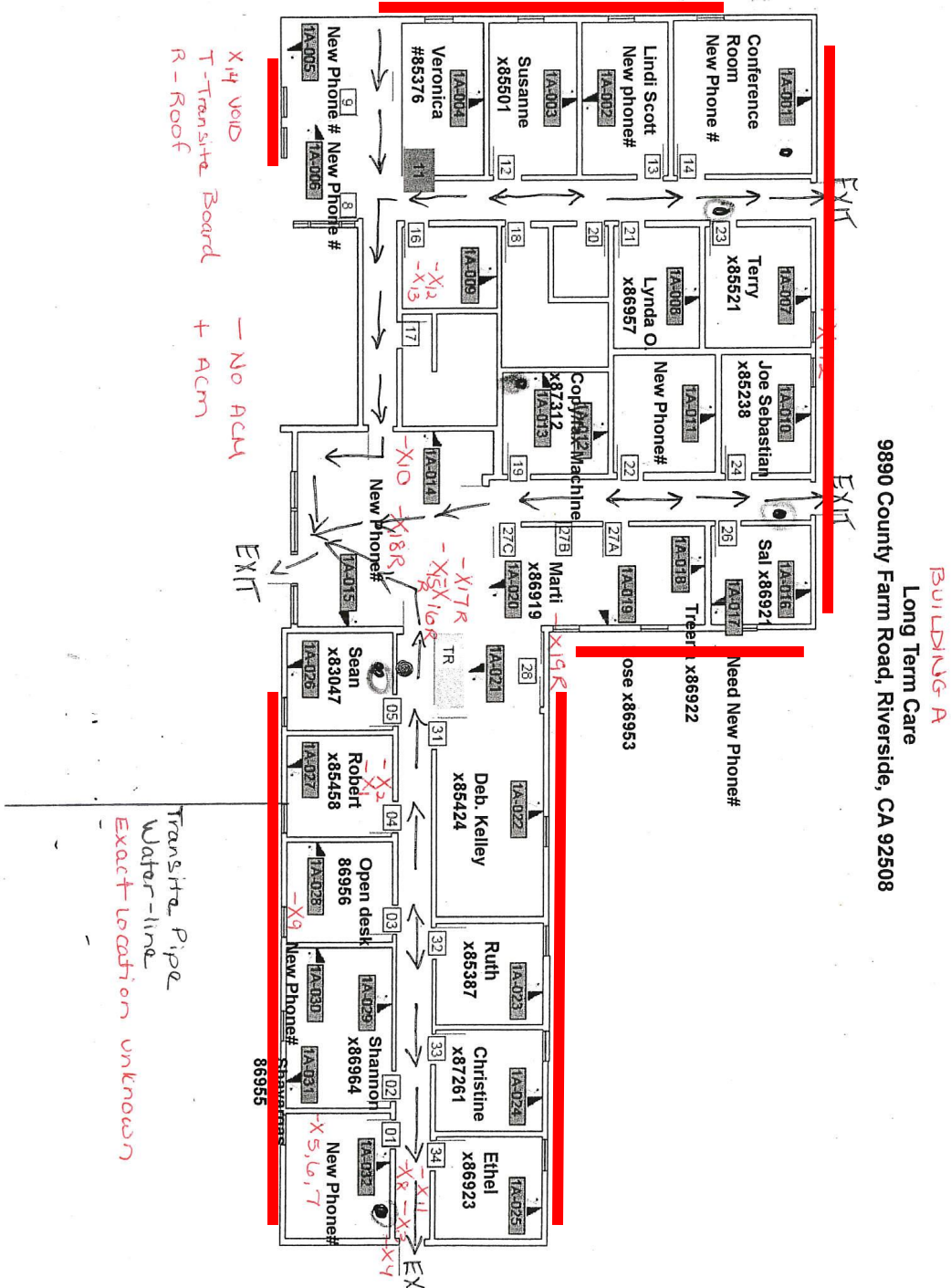
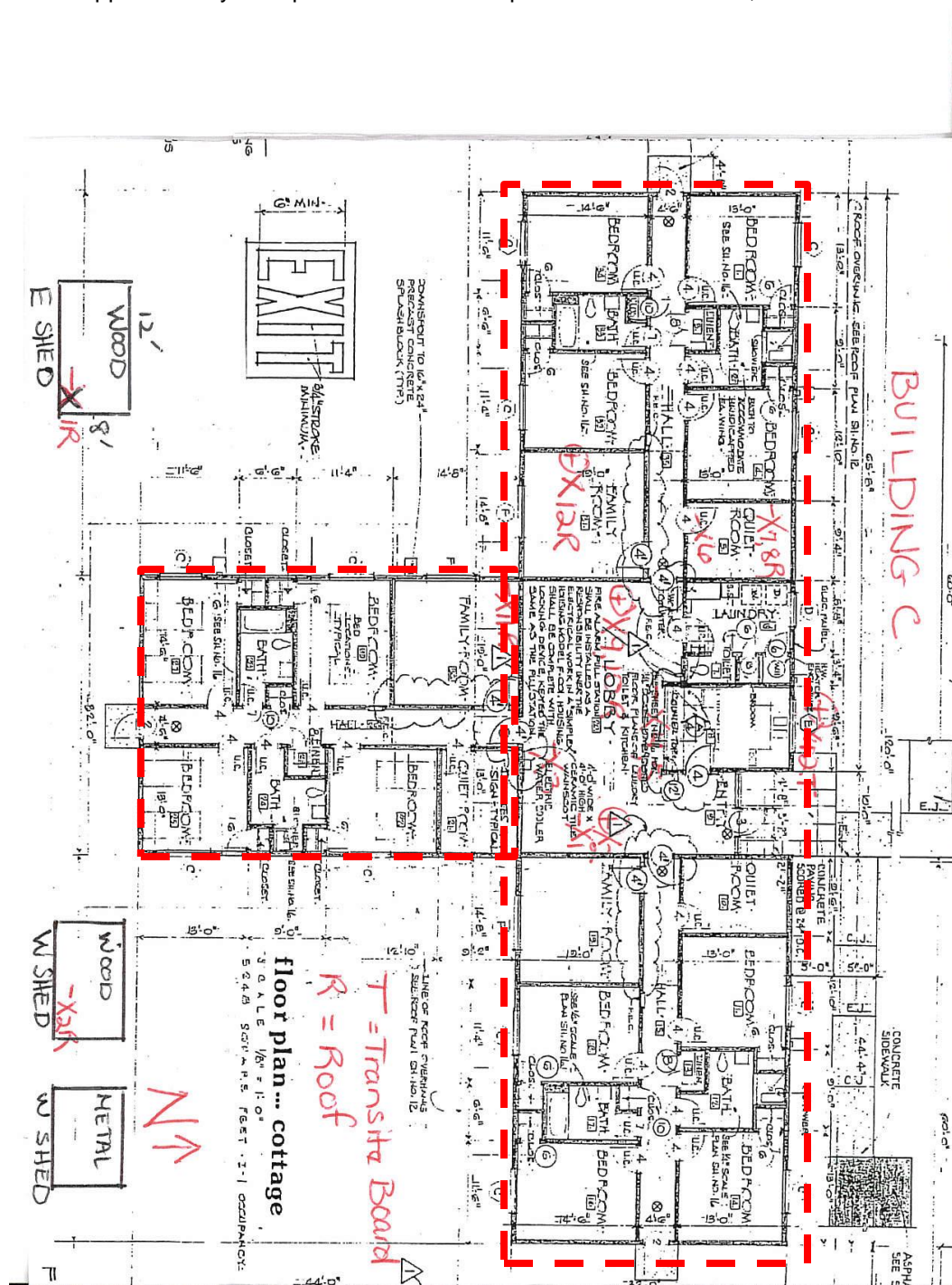


Diagram 2.1 – ACM to be Abated

Illustrated are the location, type and square footage of the ACM locations for future abatement on Building C.

- Remove approximately 200 square feet of ACM gray sheet vinyl backing and brown floor covering mastic throughout building C.
- Remove approximately 200 sq. ft. of black/ gray roofing mastic on the seams and penetrations on the roof).
- Remove approximately 76 sq. ft. of ACM transite panels below windows,



Asbestos Laboratory Results



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 247351 Account Number: A374 Date Received: 03/10/2015 Received By: Leigh Armstrong Date Analyzed: 03/10/2015 Analyzed By: Gayle Ooten Methodology: EPA/600/R-93/116	Client: County of Riverside Dept. of Health-Industrial Hygiene. 3880 Lemon St. STE 200 Riverside, CA 92502 Project: Mental Health Facility Project Location: 9890 County Farm Road Riverside Project Number: SR33056
---	--

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	MHA-4-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30 Paint Perlite
002	MHA-4-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30 Paint Perlite
003	MHA-H-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
003a		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO3
004	MHA-H-4	Homogeneous	Cream Cove Base Mastic	Asbestos Not Present	NA	CaCO3 Binder
005	MHA-K-5	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
005a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 247351	Client: County of Riverside
Account Number: A374	Dept. of Health-Industrial Hygiene.
Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
006	MHA-K-6	Layered	Gray/Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
006a		Layered	White Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
006b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
007	MHA-K-7	Layered	Gray/Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
007a		Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
007b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 247351	Client: County of Riverside
Account Number: A374	Dept. of Health-Industrial Hygiene.
Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
008	MHA-H-8	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose 20	Gypsum Paint
009	MHA-3-9	Layered	White Texture	Asbestos Not Present	NA	CaCO3 Gypsum Paint
009a		Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
009b		Layered	White Sheetrock	Asbestos Not Present	Cellulose 20	Gypsum
010	MHA-L-10	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Paint Perlite
011	MHA-H-11	Layered	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Paint Perlite
011a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 247351	Client: County of Riverside
Account Number: A374	Dept. of Health-Industrial Hygiene.
Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
012	MHA-16-12	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
012a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
013	MHA-16-13	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
013a		Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
013b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
013c		Layered	Gray Leveling Compound	Asbestos Not Present	Cellulose <1	CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 247351	Client: County of Riverside
Account Number: A374	Dept. of Health-Industrial Hygiene.
Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
014	MHA-R-15	Homogeneous	Black Roofing	Asbestos Not Present	Cellulose 15	Tar
015	MHA-R-16	Homogeneous	Black Roofing	Asbestos Not Present	Cellulose 10	Quartz Tar
016	MHA-R-17	Homogeneous	Gray Roofing	Asbestos Not Present	Cellulose 35	Quartz Tar
017	MHA-R-18	Layered	Black/Gray Tar	Asbestos Not Present	Cellulose 15	Tar
017a		Layered	White/Gray Roof Mastic	Asbestos Not Present	NA	Silicone Binder
018	MHA-R-19	Homogeneous	Brown Shingle	Asbestos Not Present	Glass Fiber 20	Quartz Tar
019	MHA-T-12	Homogeneous	Gray Transite	Asbestos Present Chrysotile 35	NA	CaCO3

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 247351	Client: County of Riverside
Account Number: A374	Dept. of Health-Industrial Hygiene.
Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
020	MHB-C-1	Homogeneous	Brown Mastic	Asbestos Not Present	NA	Glue
021	MHB-C-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Paint Perlite
022	MHB-C-3	Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint
022a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 25	Gypsum
023	MHB-C-4	Homogeneous	Cream Mastic	Asbestos Not Present	NA	Glue CaCO3
024	MHB-R-5	Homogeneous	Black Roofing	Asbestos Not Present	Cellulose 15	Tar

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 247351	Client: County of Riverside
Account Number: A374	Dept. of Health-Industrial Hygiene.
Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
025	MHB-R-6	Homogeneous	Gray Shingle	Asbestos Not Present	Glass Fiber	20 Quartz Tar
026	MHB-R-7	Homogeneous	Black/Gray Roof Mastic	Asbestos Not Present	Cellulose	15 Tar
027	MHB-R-8	Homogeneous	Black Roof Mastic	Asbestos Not Present	Cellulose	10 Tar CaCO3
028	MHB-R-9	Homogeneous	Brown Shingle	Asbestos Not Present	Glass Fiber	20 Quartz Tar
029	MHSH-L-1	Layered	Tan Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
029a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
030	MHSH-L-2	Layered	Gray Sheet Vinyl Backing	Asbestos Present Chrysotile 60	NA	Binder

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Polarized Light Microscopy Asbestos Analysis Report

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Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
030a		Layered	Brown Mastic	Asbestos Present Chrysotile 6	NA	Glue
031	MHSH-L-3	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
031a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 20	Gypsum
032	MHSH-L-4	Layered	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Paint Perlite
032a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
032b		Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3

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Polarized Light Microscopy Asbestos Analysis Report

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Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
033	MHSH-L-5	Homogeneous	Brown Mastic	Asbestos Not Present	NA	Glue
034	MHSH-L-6	Layered	Black Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
034a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
035	MHSH-R-7	Homogeneous	Gray Shingle	Asbestos Not Present	Glass Fiber	20 Quartz Tar
036	MHSH-R-8	Homogeneous	Black/Gray Roofing	Asbestos Not Present	Synthetic	5 Quartz Tar
037	MHSH-R-9	Layered	Black/Gray Tar	Asbestos Present Chrysotile 10	NA	Tar
037a		Layered	Black Roofing	Asbestos Not Present	NA	Quartz Tar

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Polarized Light Microscopy Asbestos Analysis Report

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Account Number: A374	Dept. of Health-Industrial Hygiene.
Date Received: 03/10/2015	3880 Lemon St. STE 200
Received By: Leigh Armstrong	Riverside, CA 92502
Date Analyzed: 03/10/2015	Project: Mental Health Facility
Analyzed By: Gayle Ooten	Project Location: 9890 County Farm Road Riverside
Methodology: EPA/600/R-93/116	Project Number: SR33056

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
038	MHSH-R-10	Homogeneous	Black/Gray Roof Mastic	Asbestos Present Chrysotile 10	NA	Tar
039	MHSH-R-11	Homogeneous	Brown Shingle	Asbestos Not Present	Glass Fiber 20	Quartz Tar
040	MHSH-R-12	Homogeneous	Black/Gray Roof Mastic	Asbestos Present Chrysotile 10	NA	Tar
041	MHSH-T-1	Homogeneous	Gray Transite	Asbestos Present Chrysotile 30	NA	CaCO3

Gayle Ooten, Analyst

3/11/2015

Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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For Lab Use Only	
Lab No. <u>247351</u>	
<input checked="" type="checkbox"/> Accept	<input type="checkbox"/> Reject
Report Results (<input checked="" type="checkbox"/> one box)	
<input checked="" type="checkbox"/> QuantEM Website	
<input type="checkbox"/> Other _____	

Contact Information		Project Information	
Company: Riverside County Environmental Health	Phone: (951) 955-8980	Project Name: Mental Health Facility	
Contact: Heidi Barrios	Cell Phone: (951) 840-8889	Project Location: 9890 County Farm Road Riverside	
Account #: A374	E-mail: hbarrios@rivcocha.org	Project ID: SR33056	
SAMPLED BY: Name: Heidi Barrios	Date: 3-6-15	P.O. Number:	

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
<i>Heidi Barrios</i>	<i>3-6-15 5:00</i>	<i>FedX</i>	<i>Estey 3/6/15</i>	<i>10:30</i>

REQUESTED SERVICES (Please the Appropriate Boxes)

PLM	PLM	TEM	TEM	TURNAROUND TIME
<input checked="" type="checkbox"/> Bulk Analysis (EPA 600/R-93/116)	<input type="checkbox"/> Vermiculite Attic Insulation (EPA 600/R-04/004)	<input type="checkbox"/> Air- AHERA	<input type="checkbox"/> Bulk- Presence / Absence EPA600/R-93/116	<input type="checkbox"/> Rush
<input type="checkbox"/> 400 Point Count	<input type="checkbox"/> Other	<input type="checkbox"/> Air- NIOSH 7402	<input type="checkbox"/> Bulk- Quantitative [weight%]- Chatfield	<input type="checkbox"/> Same Day
<input type="checkbox"/> 1000 Point Count		<input type="checkbox"/> Air- ISO 10312	<input type="checkbox"/> Dust- Presence / Absence	<input checked="" type="checkbox"/> 24 - Hour
<input type="checkbox"/> Gravimetric Preparation	PCM	<input type="checkbox"/> Drinking Water- EPA 100.2	<input type="checkbox"/> Dust- Quantitative [fibers/sq.cm]- ASTM D5755	<input type="checkbox"/> 3 - Day
<input type="checkbox"/> Particle ID	<input type="checkbox"/> NIOSH 7400	<input type="checkbox"/> Waste Water- EPA 600/4-83-043	<input type="checkbox"/> Other	<input type="checkbox"/> 5 - Day

No.	Sample ID (10 Characters Max)	To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	MHA-4-1	<input checked="" type="checkbox"/>	white	ceiling tile	lobby	main tile - long dash
2	MHA-4-2	<input checked="" type="checkbox"/>	white	ceiling tile	lobby	least used tile - speckles
3	MHA-H-3	<input checked="" type="checkbox"/>	brown	flooring glue	hallway	
4	MHA-H-4	<input checked="" type="checkbox"/>	white	coving glue	hallway	
5	MHA-K-5	<input checked="" type="checkbox"/>	beige	vinyl tile and glue	kitchen	top layer
6	MHA-K-6	<input checked="" type="checkbox"/>	black	vinyl tile, glue and mastic	kitchen	middle layer
7	MHA-K-7	<input checked="" type="checkbox"/>	grey	vinyl tile, glue and mastic	kitchen	bottom layer (original)
8	MHA-H-8	<input checked="" type="checkbox"/>	white	dry wall and skim coat	hallway	
9	MHA-3-9	<input checked="" type="checkbox"/>	white	drywall tape with mud	room 3	
10	MHA-L-10	<input checked="" type="checkbox"/>	white	ceiling tile	lobby	mid-use tile - pin holes

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Page 2 of 3

For Lab Use Only

Lab No. 247351

Accept Reject

Project Information						
Company: Riverside County Environmental Health		Project Name: Mental Health Facility			Project Location: 9890 County Farm Road Riverside	
No.	Sample ID (10 Characters Max)	<input checked="" type="checkbox"/> To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
11	MHA-H-11	<input checked="" type="checkbox"/>	white	ceiling tile and glue	hallway	
12	MHA-16-12	<input checked="" type="checkbox"/>	beige	vinyl tile and glue	room 16	top layer
13	MHA-16-13	<input checked="" type="checkbox"/>	grey	vinyl tile, glue and mastic	room 16	bottom layer
14	VOID	<input type="checkbox"/>				
15	MHA-R-15	<input checked="" type="checkbox"/>	black	mastic	roof	vent
16	MHA-R-16	<input checked="" type="checkbox"/>	black	mastic	roof	roof penetrations
17	MHA-R-17	<input checked="" type="checkbox"/>	black & grey	roofing	roof	roof deck
18	MHA-R-18	<input checked="" type="checkbox"/>	grey	mastic	roof	roof trim
19	MHA-R-19	<input checked="" type="checkbox"/>	brown	roof tile	roof	
20	MHA-T-12	<input checked="" type="checkbox"/>	grey	transite board	S wall	below window
21	MHB-C-1	<input checked="" type="checkbox"/>	grey	glue	N room	ceiling tile glue
22	MHB-C-2	<input checked="" type="checkbox"/>	white	ceiling tile	N room	
23	MHB-C-3	<input checked="" type="checkbox"/>	white	drywall, skim coat and mud	N room	
24	MHB-C-4	<input checked="" type="checkbox"/>	white	glue	N room	cove base glue
25	MHB-R-5	<input checked="" type="checkbox"/>	black	felt with mastic	roof	
26	MHB-R-6	<input checked="" type="checkbox"/>	grey	roof tile and mastic	roof	parapit
27	MHB-R-7	<input checked="" type="checkbox"/>	black	mastic	roof	roof deck seams
28	MHB-R-8	<input checked="" type="checkbox"/>	black	mastic	roof	roof penetrations
29	MHB-R-9	<input checked="" type="checkbox"/>	brown	roof tile	roof	
30	MHSH-L-1	<input checked="" type="checkbox"/>	tan	vinyl tile and glue	lobby	flooring

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Page 3 of 3

For Lab Use Only	
Lab No.	247351
<input checked="" type="checkbox"/> Accept	<input type="checkbox"/> Reject

Project Information						
Company: Riverside County Environmental Health		Project Name: Mental Health Facility			Project Location: 9890 County Farm Road Riverside	
No.	Sample ID (10 Characters Max)	<input checked="" type="checkbox"/> To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
31	MHSH-L-2	<input checked="" type="checkbox"/>	tan	glue	lobby	coving glue
32	MHSH-L-3	<input checked="" type="checkbox"/>	white	drywall, mud and skim coat	lobby	wall
33	MHSH-L-4	<input checked="" type="checkbox"/>	white	ceiling tile	lobby	ceiling
34	MHSH-L-5	<input checked="" type="checkbox"/>	brown	sealant	lobby	ceiling tile sealant
35	MHSH-L-6	<input checked="" type="checkbox"/>	black	vinyl tile and mastic	dark room	flooring
36	MHSH-R-7	<input checked="" type="checkbox"/>	grey	roof tile	roof	
37	MHSH-R-8	<input checked="" type="checkbox"/>	grey	roofing	roof	roof decking
38	MHSH-R-9	<input checked="" type="checkbox"/>	grey	mastic	roof	mastic at seams
39	MHSH-R-10	<input checked="" type="checkbox"/>	black	mastic	roof	roof penetrations
40	MHSH-R-11	<input checked="" type="checkbox"/>	brown	roof tile	roof	
41	MHSH-R-12	<input checked="" type="checkbox"/>	grey	mastic	roof	mastic at vents
42	MHSH-T-1	<input checked="" type="checkbox"/>	grey	transite board	N wall	below window
43		<input type="checkbox"/>				
44		<input type="checkbox"/>				
45		<input type="checkbox"/>				
46		<input type="checkbox"/>				
47		<input type="checkbox"/>				
48		<input type="checkbox"/>				
49		<input type="checkbox"/>				
50		<input type="checkbox"/>				

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 247478
 Account Number: A374
 Date Received: 03/12/2015
 Received By: Judy Rowan
 Date Analyzed: 03/13/2015
 Analyzed By: Gayle Ooten
 Methodology: EPA/600/R-93/116

Client: County of Riverside
 Dept. of Health-Industrial Hygiene.
 3880 Lemon St. STE 200
 Riverside, CA 92502

Project: YTEC *Mental Health*
 Project Location: ~~10000~~ County Farm Road Riverside, CA *9890*
 Project Number: ~~SR3301T~~ *33056*

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	MHD-01	Homogeneous	Brown Shingle	Asbestos Not Present	Glass Fiber 20	Quartz Tar
002	MHS-02	Homogeneous	Brown Shingle	Asbestos Not Present	Cellulose 20	Quartz Tar

Gayle Ooten, Analyst

3/13/2015

Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



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Lab No. 247478	Accept <input checked="" type="checkbox"/> Reject <input type="checkbox"/>

Contact Information		Project Information		Report Results (<input checked="" type="checkbox"/> one box)
Company: Riverside County Environmental Health	Phone: (951) 955-8980	Project Name: YTEC Mental Health	<input checked="" type="checkbox"/> QuantEM Website	<input type="checkbox"/> Other _____
Contact: Heidi Barrios	Cell Phone:	Project Location: 10000 County Farm Road Riverside, CA		
Account #: A374	E-mail: hbarrios@rivcocha.org	Project ID: SR33041 33054		
SAMPLED BY: Name: Heidi Barrios	Date: 3/10/15	P.O. Number:		

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
<i>Heidi Barrios</i>	<i>3-10-15 5:10 PM</i>	<i>FAIR</i>	<i>Judy Rowan</i>	<i>3/12/15 10:00 AM</i>

REQUESTED SERVICES (Please the Appropriate Boxes)

PLM	PLM	TEM	TEM	TURNAROUND TIME
<input checked="" type="checkbox"/> Bulk Analysis (EPA 600/R-93/116)	<input type="checkbox"/> Vermiculite Attic Insulation (EPA 600/R-04/004)	<input type="checkbox"/> Air- AHERA	<input type="checkbox"/> Bulk- Presence / Absence EPA600/R-93/116	<input type="checkbox"/> Rush
<input type="checkbox"/> 400 Point Count	<input type="checkbox"/> Other _____	<input type="checkbox"/> Air- NIOSH 7402	<input type="checkbox"/> Bulk- Quantitative (weight%) - Chatfield	<input type="checkbox"/> Same Day
<input type="checkbox"/> 1000 Point Count		<input type="checkbox"/> Air- ISO 10312	<input type="checkbox"/> Dust- Presence / Absence	<input checked="" type="checkbox"/> 24 - Hour
<input type="checkbox"/> Gravimetric Preparation	PCM	<input type="checkbox"/> Drinking Water- EPA 100.2	<input type="checkbox"/> Dust- Quantitative (fibers/sq.cm)- ASTM D5755	<input type="checkbox"/> 3 - Day
<input type="checkbox"/> Particle ID	<input type="checkbox"/> NIOSH 7400	<input type="checkbox"/> Waste Water- EPA 600/4-83-043	<input type="checkbox"/> Other _____	<input type="checkbox"/> 5 - Day

No.	Sample ID (10 Characters Max)	<input checked="" type="checkbox"/> To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	MHD-01	<input checked="" type="checkbox"/>	Brown	Roof Tile	roof	SW shed (w/bed)
2	MHs-02	<input checked="" type="checkbox"/>	Brown	Roof Tile	roof	SE shed (office)
3		<input type="checkbox"/>				
4		<input type="checkbox"/>				
5		<input type="checkbox"/>				
6		<input type="checkbox"/>				
7		<input type="checkbox"/>				
8		<input type="checkbox"/>				
9		<input type="checkbox"/>				
10		<input type="checkbox"/>				

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Photographs



Photograph 1- Illustrates ACM transite panels below windows in Building A.



Photograph 2 - Illustrates the roof and roof penetrations on building C.

LIMITED LEAD BASED PAINT INSPECTION EXECUTIVE SUMMARY

Introduction

This report presents the results of a lead-based paint (LBP) inspection Mental Health Facility located at 9880 County Farm Road, Riverside, California (subject property). The LBP inspection was performed on March 6, 2015, by County of Riverside, Office of Industrial Hygiene, in accordance with Environmental Protection Agency (EPA) and Housing and Urban Development (HUD) LBP inspection guidelines. The scope of services, inspection methodology, and results are presented below.

Scope of Work

The purpose of this inspection is to identify and assess the Lead-Based Paint (LBP) present on the painted components at the subject property.

On March 6, 2015, a LBP inspector/assessor from the County of Riverside conducted an inspection for limited lead survey at 9880 County Farm Road, Riverside, CA. To comply with HUD lead inspection guidelines, exterior painted and varnished surfaces were tested for the presence of LBP. The intent was to ascertain the presence of LBP above the specified action level of 1.0 mg/cm². Painted surfaces of architectural components detected above the action level were identified and conditions assessed for subsequent lead hazard control activity.

Property Description

The subject property is a three one story, buildings and 2 sheds. The structures are estimated to have been built in the 1960's.

Inspector's Qualifications

Steven Hinde performed the inspection at the site using RMD X-ray fluorescence (XRF) spectrum analyzer instrument. Mr. Hinde is accredited by the State of California, Department of Public Health (CDPH) as a Lead Inspector/ Risk Assessor. Mr. Hinde CDPH License number is 239.

Method of Testing and Protocol

Testing and sampling was conducted in accordance with the HUD Guidelines. For LBP testing, a hand-held XRF instrument, an RMD Spectrum Analyzer was used. The instrument was calibrated to a National Institute of Standards and Testing (NIST) Standard Reference Material of 1.02 mg/cm² in accordance with the manufacturer's specifications. The calibration was periodically verified (i.e., at the beginning and end of each work period). On the building's exterior, one representative surface of each painted or varnished component was tested. The HUD action level of 1.0 mg/cm² was used as criteria for LBP.

Inspector's Limitations

The inspection was planned, developed, and implemented based on previous experience in performing LBP inspections. The inspections were conducted in conformance with the most current edition of the HUD Guidelines. The inspectors utilized practices and techniques in accordance with regulatory standards while performing this inspection. A copy of the inspector's certifications and equipment licenses are maintained in the Office of Industrial Hygiene, County of Riverside. Evaluations of the relative risk of exposure to lead identified during this inspection are based on conditions observed at the time of the inspections. The County cannot be responsible for changing conditions that may alter relative exposure risk or for future changes in accepted methodology.

Lead XRF Inspection and Environmental Analysis Final Summary Report

After all possible combinations were tested at the office building located at 9880 County Farm Road, Riverside, CA. Lead in quantities greater than the County of Riverside standard of 1.0 mg/cm² and/or 5000 ppm were not found.

XRF-Interior / Exterior Inspection Results:

<u>Location</u>	<u>Substrate</u>	<u>Condition</u>	<u>Component</u>	<u>Color</u>
Mental Health Facility			No areas with a lead level greater than the level of concern	

It should be noted that positive lead level on the paint from the exterior stucco on Building A, from the XRF, were found to be a false positive. This could be from the galvanize metal behind the stucco. Two bulk samples were both analyzed and found to be less than 45.3 ppm & less than 60 ppm. This confirms no lead paint, above the level of concern was present during the survey.

Interior/Exterior XRF Sequential Inspection Report

LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#02654 - 03/06/15 08:23

INSPECTION FOR: Riverside County
Economic Development Agency
Frank Gonzales, Project Manager
Rebecca, McCray, Sup. Project Mgr.

PERFORMED AT: Mental Health Facility
Building A
9890 County Farm Rd
Riverside, CA

INSPECTION DATE: 03/06/15

INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 02654

ACTION LEVEL: 1.0 mg/cm²

OPERATOR LICENSE: 239

Limited Lead Inspection

SIGNED: _____

shinde
Steve Hinde, REHS, CAC, CIH
Riverside County
Environmental Health
Office of Industrial Hygiene

Date: _____

3-6-15

SEQUENTIAL REPORT OF LEAD PAINT INSPECTION FOR: Riverside County

Inspection Date: 03/06/15 Mental Health Facility
 Report Date: 5/7/2015 Building A
 Abatement Level: 1.0 9890 County Farm Rd
 Report No. S#02654 - 03/06/15 08:23 Riverside, CA
 Total Readings: 27
 Job Started: 03/06/15 08:23
 Job Finished: 03/06/15 10:42

Read No.	Rm No.	Room Name	Wall Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
1		CALIBRATION							0.9	TC
2		CALIBRATION							0.9	TC
3		CALIBRATION							0.9	TC
4	001	Building	A	Wall	U Ctr	I	Wood	Tan	-0.3	QM
5	001	Building	A	Window	Ctr Header	I	Wood	Brown	-0.7	QM
6	001	Building	A	Window	Lft Sash	I	Wood	Brown	-0.5	QM
7	001	Building	A	Fascia		I	Wood	Tan	-0.1	QM
8	001	Building	A	Wall	U Lft	I	Stucco	Red	1.0	QM
9	001	Building	A	Wall	U Ctr	I	Stucco	Red	1.0	QM
10	001	Building	A	Door	Ctr Lft casing	I	Metal	Brown	-0.4	QM
11	001	Building	A	Window	Rgt Rgt casing	I	Metal	Brown	-0.8	QM
12	002	Lobby	D	Wall	L Lft	I	Dry Wall	Yellow	-0.4	QM
13	002	Lobby	C	Wall	L Rgt	I	Dry Wall	Red	-0.2	QM
14	002	Lobby	C	Window	Rgt Rgt casing	I	Metal	Green	-0.4	QM
15	002	Lobby	A	Door	Rgt Header	I	Metal	Green	-0.3	QM
16	003	Room 2	C	Door	Ctr U Rgt	I	Wood	Green	-0.3	QM
17	003	Room 2	C	Wall	L Ctr	I	Dry Wall	Yellow	-0.3	QM
18	004	Room 32	B	Wall	L Lft	I	Dry Wall	Yellow	-0.2	QM
19	005	Men's RR	A	Floor		I	Ceramic	Brown	-0.3	QM
20	005	Men's RR	D	Wall	L Ctr	I	Ceramic	Beige	-0.4	QM
21	005	Men's RR	B	Floor		I	Ceramic	Beige	-0.5	QM
22	006	Janitorial	B	Wall	L Ctr	I	Dry Wall	Beige	-0.1	QM
23	007	Hallway	C	Door	Ctr Rgt casing	I	Metal	Brown	-0.4	QM
24	001	Building	C	Wall	U Ctr	I	Wood	Tan	-0.5	QM
25	001	Building	C	Wall	U Rgt	I	Stucco	Red	0.6	QM
26	001	Building	C	Wall	U Ctr	I	Stucco	Red	0.6	QM
27	001	Building	C	Door	Lft U Ctr	I	Wood	Brown	-0.3	QM

---- End of Readings ----

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Riverside County

Inspection Date: 03/06/15 Mental Health Facility
 Report Date: 5/7/2015 Building A
 Abatement Level: 1.0 9890 County Farm Rd
 Report No. S#02654 - 03/06/15 08:23 Riverside, CA
 Total Readings: 27 Actionable: 2
 Job Started: 03/06/15 08:23
 Job Finished: 03/06/15 10:42

Reading				Paint			Lead		
No.	Wall	Structure	Location	Member	Cond	Substrate	Color	(mg/cm ²)	Mode
Exterior Room 001 Building									
008	A	Wall	U Lft		I	Stucco	Red	1.0	QM
009	A	Wall	U Ctr		I	Stucco	Red	1.0	QM
----- End of Readings -----									

LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#02654 - 03/06/15 10:42

INSPECTION FOR: Riverside County
Economic Development Agency
Frank Gonzales, Project Manager
Rebecca McCray, Sup. Project Mgr.

PERFORMED AT: Mental Health Facility
Building B
9890 County Farm Rd
Riverside, CA

INSPECTION DATE: 03/06/15

INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 02654

ACTION LEVEL: 1.0 mg/cm²

OPERATOR LICENSE: 239

Limited Lead Inspection

SIGNED: Steve Hinde

Steve Hinde, REHS, CAC, CIH
Riverside County
Environmental Health
Office of Industrial Hygiene

Date: 3-6-15

SEQUENTIAL REPORT OF LEAD PAINT INSPECTION FOR: Riverside County

Inspection Date: 03/06/15 Mental Health Facility
 Report Date: 5/7/2015 Building B
 Abatement Level: 1.0 9890 County Farm Rd
 Report No. S#02654 - 03/06/15 10:42 Riverside, CA
 Total Readings: 14
 Job Started: 03/06/15 10:42
 Job Finished: 03/06/15 10:59

Read No.	Rm No.	Room Name	Wall Structure	Location	Member	Paint		Color	Lead (mg/cm ²)	Mode
						Cond	Substrate			
1	001	Building B	B Wall		U Rgt	I	Wood	Beige	-0.5	QM
2	001	Building B	B Door		Rgt U Ctr	I	Metal	Beige	-0.2	QM
3	001	Building B	B Door		Rgt Rgt jamb	I	Metal	Beige	-0.2	QM
4	001	Building B	B Window		Ctr Rgt casing	I	Metal	Brown	-0.8	QM
5	001	Building B	B Fascia			F	Wood	Beige	-0.3	QM
6	001	Building B	B Soffit			F	Wood	Beige	0.0	QM
7	002	North Room	A Wall		L Ctr	I	Dry Wall	White	-0.5	QM
8	002	North Room	B Door		Lft Rgt casing	I	Metal	White	0.0	QM
9	003	WomensRR	A Floor			I	Ceramic	Beige	-0.6	QM
10	003	WomensRR	A Wall		L Rgt	I	Ceramic	Beige	-0.5	QM
11	003	WomensRR	D Door		Rgt U Rgt	I	Wood	Beige	-0.3	QM
12	004	South Room	B Wall		L Ctr	I	Dry Wall	Black	-0.1	QM
13	004	South Room	A Door		Ctr Rgt casing	I	Metal	Black	-0.2	QM
14	004	South Room	A Door		Ctr U Ctr	I	Metal	Black	-0.2	QM

---- End of Readings ----

LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#02654 - 03/06/15 11:10

INSPECTION FOR: Riverside County
Economic Development Agency
Frank Gonzales, Project Manager
Rebecca McCray, Sup. Project Mgr.

PERFORMED AT: Mental Health Facility
Building C (Safe Haven)
9890 County Farm Rd.
Riverside, CA

INSPECTION DATE: 03/06/15

INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 02654

ACTION LEVEL: 1.0 mg/cm²

OPERATOR LICENSE: 239

Limited Lead Inspection

SIGNED: Steve Hinde

Date: 3-6-15

Steve Hinde, REHS, CAC, CIH
Riverside County
Environmental Health
Office of Industrial Hygiene

SEQUENTIAL REPORT OF LEAD PAINT INSPECTION FOR: Riverside County

Inspection Date: 03/06/15 Mental Health Facility
 Report Date: 5/8/2015 Building C (Safe Haven)
 Abatement Level: 1.0 9890 County Farm Rd.
 Report No. S#02654 - 03/06/15 11:10 Riverside, CA
 Total Readings: 25
 Job Started: 03/06/15 11:10
 Job Finished: 03/06/15 12:05

Read No.	Rm No.	Room Name	Wall Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
1	001	Building C	A Wall	U Lft		I Wood		Beige	-0.6	QM
2	002	Building B	C Railing	Ctr Railing		P Metal		Blue	0.4	QM
3	001	Building C	A Window	Lft Well		I Wood		Beige	-0.3	QM
4	001	Building C	A Fascia			F Wood		Beige	-0.2	QM
5	001	Building C	A Soffit			F Wood		Beige	-0.3	QM
6	001	Building C	A Stormdrain	Lft		I Metal		Beige	-0.3	QM
7	003		A Wall	U Rgt		I N/A		N/A	-0.3	QM
8	001	Number Only	A Wall	U Lft		I N/A		N/A	-0.2	QM
9	001	Number Only	B Wall	U Ctr		I N/A		N/A	-0.1	QM
10	006	Lobby	C Wall	U Lft		I Dry Wall		Beige	-0.2	QM
11	006	Lobby	C Door	Ctr U Ctr		I Metal		Beige	-0.4	QM
12	006	Lobby	A Wall	L Rgt		I Wood		Tan	-0.1	QM
13	006	Lobby	D Door	Rgt U Rgt		I Metal		Beige	-0.2	QM
14	007	Hallway	D Door	Ctr Rgt casing		I Metal		Beige	-0.3	QM
15	007	Hallway	C Wall	U Lft		I Dry Wall		Beige	-0.2	QM
16	008	Room30	B Wall	U Lft		I Dry Wall		White	-0.2	QM
17	008	Room30	A Wall	U Ctr		I Wood		White	-0.1	QM
18	008	Room30	B Door	Lft Lft jamb		I Metal		White	-0.1	QM
19	009	EWingW.RR	D Floor			I Ceramic		Beige	-0.5	QM
20	009	EWingW.RR	A Wall	L Ctr		I Ceramic		Beige	-0.5	QM
21	009	EWingW.RR	C Ceiling			I Dry Wall		Beige	-0.3	QM
22	009	EWingW.RR	A Door	Rgt U Ctr		I Wood		Beige	-0.4	QM
23		CALIBRATION							0.9	TC
24		CALIBRATION							0.9	TC
25		CALIBRATION							0.9	TC

---- End of Readings ----

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation 3/6/2015

Section 2 — Type of Lead Hazard Evaluation (Check one box only)
 Lead Inspection Risk assessment Clearance Inspection Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]		City	County	Zip Code
9890 County Farm Rd		Riverside	Riverside	92503
Construction date (year) of structure	Type of structure		Children living in structure?	
1965	<input type="checkbox"/> Multi-unit building <input type="checkbox"/> School or daycare <input type="checkbox"/> Single family dwelling <input checked="" type="checkbox"/> Other: Mental Health Facility		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't Know	

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

Name		Telephone number		
Riverside County Real Estate Division				
Address [number, street, apartment (if applicable)]		City	State	Zip Code
P.O. Box 1180		Riverside	CA	92502

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
refuted by lab analysis
 No lead hazards detected Lead-contaminated dust found Lead-contaminated soil found Other: Confirm: EPA 7000B, <45 & <60 ppm

Section 6 — Individual Conducting Lead Hazard Evaluation

Name		Telephone number		
Steve Hinde		951-955-8980		
Address [number, street, apartment (if applicable)]		City	State	Zip Code
3880 Lemon Street, Suite 200		Riverside	CA	92501
CDPH certification number	Signature	Date		
239	<i>SHinde</i>	3-6-2015		

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 specific 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

916-440-5849

Lead Lab Report



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

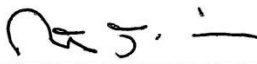
Environmental Chemistry Analysis Report

Quantem Set ID: 247336
Date Received: 03/10/15
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 3/11/2015

Client: County of Riverside
Dept. of Health-Industrial Hygiene.
3880 Lemon St. STE 200
Riverside, CA 92502
Acct. No.: A374
Project: AQMD Survey REVISED
Location: 9890 County Farm Road, Riverside
Project No.: SR33056

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	M-1	Paint	Lead	<45.3	45.3	ppm	03/10/15 15:00	P EPA 7000B (1)
002	M-2	Paint	Lead	<60.0	60.0	ppm	03/10/15 15:00	P EPA 7000B (1)

Authorized Signature: 
Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission. Quantem is not responsible for user-supplied data used in calculations.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified



LEAD CHAIN OF CUSTODY

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
 (800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only	
Lab No.	247336
Accept	Reject

Contact Information		Project Information		Report Results (☑ one box)
Company: Riverside County Environmental Health	Phone: (951) 955-8980	Project Name: AQMD Survey		<input checked="" type="checkbox"/> QuantEM Website
Contact: Steven Hinde	Cell Phone:	Project Location: 9890 County Farm Road, Riverside		<input type="checkbox"/> Other _____
Account #: A 374	E-mail: shinde@rivcocha.org	Project ID: SR 33056		

Sampled By: _____ Name: _____ Date: _____

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
<i>S. Hinde</i>	<i>3/6/15 2:15</i>	<i>Fed Ex</i>	<i>S. Hinde</i>	<i>3/10/15 10:30</i>

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis		Units (☑ ONE box only)					Sample Matrix Codes			
						Pb		PPM	Wt %	mg / l	µg / ft ²	µg / m ³	mg / cm ²	A	B	
1	M-1	Building A, Stucco wall Side A			B	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>								
2	M-2	Building A, Stucco wall Side C			B	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>								
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

TURNAROUND TIME	
<input type="checkbox"/>	Same Day
<input checked="" type="checkbox"/>	24 - Hour
<input type="checkbox"/>	3 - Day
<input type="checkbox"/>	5 - Day

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517 • Mark Package "Hold for Saturday Pickup"

UNIVERSAL WASTE SURVEY

INTRODUCTION

Site Description

The subject site consists of a three buildings, located at 9890 County Farm Road, Riverside, Ca 92508. Buildings are identified as Building A (RV0997), Building B (RV0998), and Building C Safe Haven (RV0999).

Objectives

The objectives of our scope of services were to assess the potential presence and quantity of universal wastes in areas and materials at the site prior to planned, demolition activities. The information obtained from this investigation will be used by EDA for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating universal waste and potential hazardous building material disturbance activities.

BACKGROUND

Universal Waste and Suspect Hazardous Building Materials

Universal wastes are common hazardous wastes that are generated by a variety of households and businesses, and are generally *not allowed* to be disposed of in solid waste landfills. Universal waste includes such items as fluorescent light tubes and lamps (that contain mercury), mercury-containing switches and thermostats, batteries, and some electronic equipment. In the past, the universal waste rules allowed these common, low-hazard wastes to be managed under less stringent requirements than other hazardous wastes. California's Universal Waste Rule [CCR, Title 22, Division 4.5, Chapter 23], which is overseen by the Department of Toxic Substances Control (DTSC), became effective on February 8, 2002. Under the rule, universal waste may not be discarded in municipal waste landfills. Previous regulatory exemptions that allowed households and other small quantity generators to dispose of some hazardous wastes in municipal solid waste landfills expired on February 9, 2006 and these universal wastes are no longer allowed to be disposed of in municipal waste landfills. In addition, suspect hazardous building materials that may be present in building components include such materials as polychlorinated biphenyls (PCBs) in some fluorescent light ballasts, and chlorofluorocarbon (CFC) refrigerant in air conditioning units and refrigerated equipment. Universal waste and suspect hazardous building materials present in buildings and structures proposed for renovation or demolition should be removed and managed for recycling or as hazardous wastes prior to commencement of activities that would disturb these materials.

HISTORY

Past Use

These structures were built in the 1960s. However, the building does not meet the definition of a "historical resource" and no other potential "historical resources" are

present within or adjacent to the Project site. A more recent remodeling was done in the interior of Building A. This included new carpet and paint.

Architectural Plans

The Architectural plans for the site were available.

SCOPE OF SERVICES

Certification & Experience

Daisy Ciudad Real, REHS conducted the universal waste survey at the site on March 6th, 2015 with the supervision of Steve Hinde. Mr. Hinde is a California-Certified Asbestos Consultant (CAC), certification No. 94-1352 (expiration April 29, 2014), Certified Lead Paint Inspector/Assessor with the California Department of Public Health (DPH), certification number I-239 (expiration July 20, 2015), Registered Environmental Health Specialist (REHS) - State of California, Department of Health Services, California Registration #4924 (expires December 31, 2016) and Certified Industrial Hygienist (CIH) American Industrial Hygienist Association, Comprehensive Practice, Cert. #7479 (expires December 31, 2018) with over twenty years of experience in industrial hygiene.

Universal Wastes:

1. **Electronic devices (ED):** Includes any electronic device that is a hazardous waste (with or without a Cathode Ray Tube (CRT), including televisions, computer monitors, cell phones, VCRs, computer CPUs and portable DVD players.
2. **Batteries (B):** Most household-type batteries, including rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, alkaline batteries and other batteries that exhibits a characteristic of a hazardous waste
3. **Electric lamps (EL):** Fluorescent tubes and bulbs, high intensity discharge lamps, sodium vapor lamps and electric lamps that contain added mercury, as well as any other lamp that exhibits a characteristic of a hazardous waste. (e.g., lead).
4. **Mercury-containing equipment: (MC)** Thermostats, mercury switches, mercury thermometers, pressure or vacuum gauges, dilators and weighted tubing, mercury rubber flooring, mercury gas flow regulators, dental amalgams, counterweights, dampers and mercury added novelties such as jewelry, ornaments and footwear.
5. **CRTs:** The glass picture tubes removed from devices such as televisions and computer monitors.
6. **.Non-empty aerosol cans (AC) & Polychlorinated Biphenyl (PCB)** found in old fluorescent light ballasts and old transformers.

INVESTIGATIVE RESULTS

Universal Waste and Suspect Hazardous Building Materials Inventory
Fluorescent tubes, sodium vapor lamps, TV monitors and HVAC refrigerant were found throughout the facility:

Building A (RV0997)

Universal Waste	Count	Location
1' Round fluorescent bulb	2	Room 31
4' Fluorescent bulb	84	Throughout
HVAC Refrigerant	4	Roof

Building B (RV0998)

Universal Waste	Count	Location
1' Round fluorescent bulb	1	Janitorial room
4' Fluorescent bulb	16	Throughout
Sodium Vapor lamps	2	Exterior Walls
HVAC Refrigerant	2	Roof

Building C Safe Haven (RV0999)

Universal Waste	Count	Location
4' Fluorescent bulb	84	Throughout
Sodium Vapor lamps	4	Exterior Walls
HVAC Refrigerant	4	Roof

CONCLUSIONS AND RECOMMENDATIONS

Remove all universal waste prior to demolition. Dispose of in an approved manner as Hazardous Waste.

- Fluorescent light tubes should be removed from the light fixtures and managed for recycling.
- Fluorescent light ballasts that are unlabeled or lack a “no PCBs” label should be treated as PCB-containing components and managed as a hazardous waste.
- The air conditioning equipment should be removed and managed for reuse, or the potential CFC refrigerant in the equipment reclaimed for recycling prior the disposal of the equipment

REPORT LIMITATIONS

This report has been prepared exclusively for County of Riverside Economic Development Agency. The information contained herein is only valid as of the date of the report, and will require an update to reflect additional information obtained. The survey was conducted in conformance with generally accepted standards of practice for

identifying and evaluating universal waste in structures. Due to the nature of building surveys, universal waste in the structures may not have been identified.

Building spaces, such as wall cavities, crawlspaces, voids, and pipe chases, may have been concealed. Previous building renovation work such as paneling and flooring additions may have concealed or covered spaces or materials, or may have partially demolished materials and left debris in inaccessible areas. Additionally, renovation activities that may have partially replaced universal waste may exist in areas not accessible or sampled in conjunction with our proposal.

During renovation or demolition operations, suspect materials may be uncovered which are different from those accessible for sampling during this assessment. Personnel in charge of renovation/demolition should be alerted to note materials uncovered during such activities that differ substantially from those included in this assessment report. If additional suspect materials are found, they should be treated as hazardous until/unless sampling and analysis indicate otherwise.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein.

MENTAL HEALTH CRISIS CENTER DEMOLITION AND SITE PREPARATION
RIVERSIDE, CA

SECTION 31 1100 (02230) – SITE CLEARING AND GRUBBING

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Clearing of plant life and grass, surface rocks and debris and minor existing construction.
- B. Grubbing of root systems of trees and shrubs, abandoned utility lines and structures and other below grade obstructions and debris.

1.2 RELATED DOCUMENTS AND SECTIONS

- A. Division 0 Document - Geotechnical Data: Report of soils investigation.
- B. Division 1 Section - Temporary Construction Facilities and Controls: Protective measures, including barriers and barricades.
- C. Division 2 Section - Selective Demolition: [Removal of paving and removal if indicated of abandoned utilities. Within building footprint, removal of designated fences, walls, partitions, and other elements; capping and identifying utilities; and removal of concrete foundations.]
- D. Division 31 Section - Rough Grading: Site preparation.

1.3 PROTECTION

- A. Protect streets, roads, sidewalks, drainage channels, adjacent property, designated trees, and other existing improvements to remain. Refer to general requirements specified in Division 1 Section –“Temporary Construction Facilities and Controls”.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Materials shall be at the Contractor's option.

PART 3 - EXECUTION

3.1 SURVEY STAKING IN UNCLEARED EASEMENTS

- A. Flag centerline of utility lines prior to clearing. Contractor shall set offsets for clearing limits to suit the Work.
- B. When the clearing is completed, survey for utility construction in accordance with requirements specified in Division 1 Section –“Field Engineering”.
- C. Contractor shall replace all controls and stakes damaged or destroyed, at no change in Contract Time or Contract Price.

MENTAL HEALTH CRISIS CENTER DEMOLITION AND SITE PREPARATION
RIVERSIDE, CA

3.2 CLEARING

- A. Perform clearing Work within confines of Project area indicated on Drawings or specified elsewhere herein and with strict adherence to the geotechnical recommendations.
- B. Remove only trees within area to be cleared that have been marked for removal. Confirm trees to be removed with District and Architect before beginning removal process.
 - 1. Cut trunks close and parallel to ground.
 - 2. Remove roots where under or within five feet of proposed structures.
 - 3. Neither remove nor prune trees and shrubbery in public rights-of-way except by written approval of authorities having jurisdiction.
- C. Remove logs, rocks and other debris.
- D. Dispose of Debris resulting from clearing and thoroughly clean rights-of-way.

3.3 GRUBBING

- A. At pipelines, remove all trees or stumps within five feet of the pipeline.
- B. Perform grubbing where indicated on Drawings or as specified herein. Grubbing shall include removal from the ground of all stumps, roots, buried logs and other vegetation not otherwise indicated to remain, and removal and disposal of resulting refuse.
- C. Completely grub areas where unsuitable surface material is to be removed.

3.4 DAMAGED VEGETATION

- A. Neatly prune damaged branches and severed roots.
- B. Apply wound paint to above-ground cuts and abrasions.
- C. If trees and shrubs indicated to remain are damaged excessively, as determined by Construction Manager, Architect or authorities having jurisdiction, remove and replace damaged plants with comparable plants.

3.5 DISPOSAL

- A. Debris Disposal: Dispose of all cleared and grubbed materials in a legal manner off site.
- B. Hazardous Materials:
 - 1. Immediately notify the Construction Manager should hazardous materials or suspected hazardous materials be encountered.
 - 2. Dispose of such materials in accordance with all applicable laws and regulations and as directed by authorities having jurisdiction.
 - 3. Unforeseen conditions will be resolved in accordance with the Conditions of the Contract.

MENTAL HEALTH CRISIS CENTER DEMOLITION AND SITE PREPARATION
RIVERSIDE, CA

- C. Saleable Materials:
 - 1. Unless otherwise indicated, all felled trees from which merchantable lumber or firewood can be produced shall become the property of the Contractor.
 - 2. Unless otherwise indicated, all metallic debris of salvageable value shall become the property of the Contractor.
 - 3. The Contractor shall remove all saleable materials from the site in a timely manner.
 - 4. Sale of salvaged and merchantable materials shall be done on site only with prior approval of the District.
- D. Stockpiling Vegetation: Only if specified or indicated under landscape work, stockpile vegetation for subsequent mulching.
- E. Burial and Burning: Debris shall not be buried or burned on site.
- F. Contractor shall abide by all recycling requirements of the City.

3.6 DUST CONTROL

- A. Refer to requirements of Division 1 Section - Temporary Construction Facilities and Controls.
- B. Minimize dust during clearing and grubbing to protect adjoining property and vehicles parked in the vicinity.
- C. Clean-up: Keep public thoroughfares clear of dust and debris by periodic sweeping and washing down, at least daily at the end of working hours.

END OF SECTION 31 1100