REMOVAL AND DISPOSAL OF LEAD-CONTAINING PAINT

COMAL COUNTY COURTHOUSE
199 MAIN PLAZA
NEW BRAUNFELS, TEXAS

PART 1 GENERAL

1.1 SUMMARY

Comal County will conduct limited lead-based paint (LBP) abatement as required at the County Courthouse in New Braunfels, Texas. The Courthouse was constructed in 1898, and consists of approximately 23,700 square feet of space, including a basement level. Renovation activities are planned which may require abatement of LBP. This project will include the abatement and/or stabilization of intact interior and exterior surfaces coated with lead-based paint.

1.2 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z88.2	1980 Respiratory Protection

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)

Lead Based Paint	1995 Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR 1910.134	1988 Respiratory Protection
29 CFR 1926.55	Gases, Vapors, Fumes, Dusts, and Mists

29 CFR 1926.59	1988 Hazard Communication
29 CFR 1926.62	Lead (Interim Final Rule, 5/93)
40 CFR 260	Hazardous Waste Management System General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards for Generators of Hazardous Waste
40 CFR 263	Standards for Transport of Hazardous Waste
40 CFR 264	Standard for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 266	Standard for Management of Specific Hazardous Waste and Facilities
49 CFR 172	Hazardous Materials Tables and Hazardous Materials Communications Regulations
49 CFR 178	Shipping Container Specifications

UNDERWRITERS LABORATORY (UL)

UL 586	1985 (R 1988) High-Efficiency, Particulate, Air Filter Units, Sixth Edition

1.3 DEFINITIONS

1.3.1 Action Level

Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8-hour period. As used in this section, "30 micrograms per cubic meter of air" refers to the action level.

1.3.2 Area Monitoring

Sampling of lead concentrations within the lead control area and outside the lead control area which is representative of the airborne lead concentrations that may reach the breathing zone of personnel potentially exposed to lead.

1.3.3 Physical Boundary

Area physically roped or partitioned off around an enclosed lead control area to limit unauthorized entry of personnel. As used in this section, "inside boundary" shall mean the same as "outside lead control area".

1.3.4 Certified Industrial Hygienist (CIH)

As used in this section refers to an Industrial Hygienist employed by the Contractor and is certified by the American Board of Industrial Hygiene in comprehensive practice.

1.3.5 Decontamination Unit

Room for decontamination of equipment, contaminated debris and personnel. Decontamination unit shall consist of five chambers including dirty room, air lock, shower room, air lock and clean room. Provisions shall be made for storage of worker's personal possessions in the clean room.

1.3.6 Eight-Hour Time Weighted Average (TWA)

Airborne concentration of lead averaged over an 8-hour workday to which an employee is exposed.

1.3.7 High Efficiency Particulate Air (HEPA) Filter Equipment

HEPA filtered vacuuming equipment with an UL-586 filter system capable of collecting and retaining lead-contaminated paint dust. A high efficiency particulate filter means 99.97 percent efficient against 0.3 micron size particles.

1.3.8 Lead

"Lead" means metallic lead, inorganic lead compounds, and organic lead soaps. Excluded from this definition are other organic lead compounds.

1.3.9 Lead Control Area

A lead control area isolated by physical boundaries to prevent unauthorized entry of personnel.

1.3.10 Lead Permissible Exposure Limit (PEL)

Fifty micrograms per cubic meter of air as an 8-hour time weighted average as determined by 29 CFR 1926.62. If an employee is exposed for more than 8 hours in a workday, the PEL shall be determined by the following formula:

PEL (micrograms/cubic meter of air) = 400/number of hours worked per day

1.3.11 Personal Monitoring

Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with 29 CFR 1926.62. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of 6 to 9 inches and the center at the nose or mouth of an employee.

1.3.12 Description of Work

The work covered by this section includes procedures and equipment required to remove, handle and dispose of designated lead contaminated paint and lead contaminated debris and to limit occupational and environmental exposure to lead when same lead containing

paint is removed. Perform work in accordance with 29 CFR 1926.62 and the requirements specified herein. Structural components to be abated include both intact and damaged areas including:

- Brown Paint on Interior wood trim
- Brown Paint on Interior wood window casing, sash and sills
- Brown Paint on Interior wood baseboards
- Brown Paint on Interior metal safe door & door frame (first floor)
- White Paint on Interior wood windows, sills, troughs and trims
- White Paint on Interior wood trim
- White Paint on Exterior wood window frames

Drawings showing the location of LBP components are attached.

1.4 QUALITY ASSURANCE

1.4.1 Medical Examinations

Before exposure to lead contained dust, provide workers with a comprehensive medical examination as required by 29 CFR 1926.62 and 29 CFR 1926.59 including lead in blood levels. This examination will not be required if adequate records show the employees have been examined as required by 29 CFR 1926.62 within the last year.

1.4.1.1 Medical Records

Maintain complete and accurate medical records of employees for a period of at least 40 years or for the duration of employment plus 20 years, whichever is longer.

1.4.2 CIH Responsibilities

a. Certify training

b. Review and approve lead-containing paint removal plan for conformance to the applicable referenced standards

c. Inspect lead-containing paint removal work for conformance with the approved plan

d. Direct monitoring

e. Ensure work is performed in strict accordance with specifications at all times

f. Ensure hazardous exposure to personnel and to the environment are adequately controlled at all times

The CIH may delegate some of these responsibilities if approved by the Contracting Officer.

1.4.3 Training

Train each employee performing paint removal and disposal prior to the time of initial job assignment, in accordance with 29 CFR 1926.62.

1.4.3.1 Training Certification

Submit certifications signed and dated by the CIH and by each employee stating that the employee has received training.

1.4.4 Respiratory Protection Program

a. Furnish each employee required to wear a respirator with a respirator fit test at the time of initial fitting and at least every 12 months thereafter as required by 29 CFR 1910.134.
b. Establish and implement a respiratory protection program as required by ANSI Z88.2, 29 CFR 1910.134, 29 CFR 1926.62 and 29 CFR 1926.55.

1.4.5 Hazard Communication Program

Establish and implement a Hazard Communication Program as required by 29 CFR 1926.59 and 49 CFR 172.

1.4.6 Hazardous Waste Management

Submit a Hazardous Waster Management Plan within 5 calendar days after award of contract for Contracting Officer's approval. The Hazardous Waste Management plan shall

comply with applicable requirements of federal, state, and local hazardous waste regulations and address:

a. Identification of hazardous wastes associated with the work.

b. Estimated quantities of wastes to be generated and disposed of.

c. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.

d. List of waste handling equipment to be used in performing the work.

e. Spill prevention, containment, and cleanup contingency measures to be implemented.

f. Work plan and schedule for waste containment, removal and disposal. Wastes shall be cleaned up and containerized daily.

The Contractor is responsible for disposal of properly containerized lead contaminated waste and debris.

1.4.7 Safety and Health Compliance

In addition to the detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of federal, state, and local authorities regarding removing, handling, storing, transporting, and disposing of lead waste materials. Comply with the applicable requirements of the current issues of 29 CFR 1926.62. Submit matters of interpretation of standards to the Contracting Officer for resolution before starting work. Where specification requirements and the referenced documents vary, the most stringent requirement shall apply.

The following guidelines and regulations regarding removing, handling, storing, transporting and disposing of lead contaminated materials apply:

a. Lead-Based Paint: Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing; U.S. Department of Housing and Urban Development.

b. OSHA Lead Standard (29 CFR 1926.62) and Working With Lead in the Construction

Industry, OSHA 3126

c. OSHA Hazard Communication Standard (29 CFR 1926.59)

d. NIOSH Alert: Preventing Lead Poisoning in Construction Workers

1.4.8 Pre-Construction Conference

Along with the CIH, or his designated representative, meet with the Contracting Officer to discuss in detail the lead-containing paint removal work plan, including work procedures and precautions.

1.5 SUBMITTALS

Submit to the Contracting Officer for approval prior to commencing paint removal work.

1.5.1 Manufacturer's Catalog Data

a. Respirators
b. Paint removal materials and equipment and applicable material safety data sheets (MSDS)

1.5.2 Statements

a. Qualifications of CIH

b. Lead-containing paint removal plan

c. Rental equipment notification

d. Completed and signed hazardous waste manifest form for transfer of containerized lead contaminated waste and debris to the Government.

e. CIH approval of work plan (signature, date and certification number)

f. Hazardous waste management plan

1.5.2.1 Qualifications of CIH

Submit name, address, and telephone number of the CIH selected to perform responsibilities in paragraph entitled "CIH Responsibilities". Provide previous experience of the CIH. Submit proper documentation that the Industrial Hygienist is certified by the American Board of Industrial Hygiene in comprehensive practice, including certification number and date of certification/recertification.

1.5.2.2 Lead Containing Paint Removal Plan

It is likely that encapsulation of interior LBP in good condition will suffice for a majority of the project. As required, submit a detailed job-specific plan of the work procedures to be used in the removal of lead containing interior and exterior paint. In order to verify the effectiveness of the particular removal method, the contractor will contact the Historic Architect to arrange test patch testing prior to initiating the project. The Historic Architect will observe the technique to determine the potential damage to the original building materials.

After the method is approved, the plan shall include a sketch showing the location, size, and details of lead control areas and location and details of decontamination unit including decontamination procedures. Include in the plan, eating, drinking, smoking and restroom procedures, sequencing of lead related work, collected wastewater and paint debris disposal plan, air sampling plan, respirators, and protective equipment. Include air sampling, training and strategy, sampling methodology, frequency, duration of sampling, and qualifications of air monitoring personnel in the air-sampling portion of the plan. Obtain approval of the plan prior to the start of paint removal work.

METHODS OF INTERIOR ABATEMENT

In performing removal or selected demolition work of components with LBP, workers will generate lead dust. One method of dust control is misting or wet spraying of components and surrounding areas before removal work is started. The Contractor shall insure no visible dust is created by their operations at any time.

Heat-Based Removal Methods (Optional):

Because high levels of airborne lead can be produced and dispersed by heat guns, respirator protection is required. At the temperature expected to occur during paint removal

operations with most currently available heat guns, some lead fume is likely to be generated. Heat guns should not be operated in excess of 700°F.

On-site Chemical Removal Methods:

On-site chemical removal methods may require multiple applications depending on the number of layers of paint. Caustic and solvent-based chemicals should not be allowed to dry on the lead-painted surface. If drying occurs, paint removal will not be satisfactory and the potential for creating lead dust in the process will be increased.

1.5.2.3 Testing Laboratory

Submit the name, address, and telephone number of the testing laboratory selected to perform the monitoring, testing, and reporting of airborne concentrations of lead and clearance sampling. Provide proper documentation that persons performing the analysis have been judged proficient by successful participation within the last year in the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing (PAT) Program.

1.5.3 Test Reports

Submit air monitoring and clearance sampling results to the Contracting Officer within 2-3 days, signed by the testing laboratory employee performing the air monitoring, the employee that analyzed the sample, and the CIH or his designated representative. Submit clearance sample analysis results from Laboratory immediately upon receipt.

1.5.4 Certificates, Miscellaneous

a. Certification of medical examinations

b. Employee training certifications

c. Respiratory protection program

d. Hazard communication program

1.6 EQUIPMENT

Furnish the Contracting Officer with sufficient sets of personal protective equipment daily, as required herein, for entry into and inspection of the paint removal work within the controlled area. Personal protective equipment shall include fitted respirators and disposable whole body covering, including appropriate foot, head, and hand protection. PPE shall remain the property of the Contractor.

1.6.1 Respirators

Furnish appropriate respirators, approved NIOSH, for use in atmospheres containing lead dust. Respirators shall comply with the requirements of 29 CFR 1926.62. Where chemical strippers are used, provide appropriate respirators including eye protection.

1.6.2 Special Protective Clothing

Furnish personnel who will be exposed to lead-contaminated debris and stripping chemicals appropriate disposable protective whole body clothing, head covering, gloves, and foot coverings. Furnish appropriate disposable plastic or rubber gloves to protect hands.

1.6.3 Rental Equipment

If rental equipment is to be used during lead containing paint handling and disposal, notify the rental agency, in writing, concerning the intended use of the equipment. Furnish a copy of the notification to the Contracting Officer.

PART 2 PRODUCTS

2.1 Submit applicable Material Safety Data Sheets for products used in paint removal work. Use the least toxic product suitable for the job acceptable to the Industrial Hygienist.

PART 3 EXECUTION

3.1 Protection

3.1.1 Notification

Notify the Contracting Officer 10 days prior to the start of any paint removal work.

3.1.2 Lead Control Area Requirements

Establish a lead control area by sealing the windows in the work area and covering the ground beneath the work area with two layers of 6-mil plastic sheeting. Access to the work area shall be controlled by barriers and/or warning tape. The contractor/employer shall post the following warning signs in each work area where an employees exposure to lead is above the PEL:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

C. Outside the work area and the secured waste storage area the warning signs will read as follows:

CAUTION
LEAD HAZARD
DO NOT ENTER WORK AREA UNLESS AUTHORIZED

D. The contractor/employer shall assure that signs required by this paragraph are illuminated and cleaned as necessary so that the legend is readily visible.

3.1.3 Protection of Existing Work to Remain

Perform paint removal work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition or better.

3.1.4 Boundary Requirements

Provide physical boundaries around the lead control area by barricading off the area designated on the plans. Provide warning signs at 15-foot intervals on barricade tape.

3.1.5 Decontamination Unit

Provide a decontamination unit with wash-down facilities within the physical boundary around the designated lead control area in accordance with requirements of 29 CFR 1926.62.

3.1.6 Personnel Protection

Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking is not permitted in the lead control area. No one will be permitted in the lead control area unless they have been given appropriate training and protective equipment.

3.1.7 Warning Signs

Provide warning signs at approaches to the lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 29 CFR 1926.62.

3.2 WORK PROCEDURES

It is likely that encapsulation of interior LBP in good condition will suffice for a majority of the project. As required, perform removal of lead-containing paint in accordance with approved lead-containing paint removal plan. Use procedures and equipment required to limit occupational and environmental exposure to lead when lead-containing paint is removed in accordance with 29 CFR 1926.62, except as specified herein. Dispose of removed paint and associated waste in compliance with Environmental Protection Agency (EPA), federal, state, and local requirements.

3.2.1 Personnel Exiting Procedures

Whenever personnel exit the lead-controlled area, they shall perform the following procedures and shall not leave the work place wearing any clothing or equipment worn during the workday:

a. Remove protective clothing in the decontamination unit dirty room, and place them in an approved impermeable disposal bag.

b. Proceed to shower, still wearing respirator, and conduct a whole-body washdown.

c. Proceed to clean room and change to street clothes prior to leaving the physical boundary designated around the lead-contaminated job site.

3.2.2 Monitoring

Monitoring of airborne concentrations of lead shall be in accordance with 29 CFR 1926.62 and as specified herein. Air monitoring, testing, and reporting shall be performed by an Industrial Hygiene (IH) Technician who is under the direction of the CIH.

a. The IH Technician under the director of the CIH shall be on the jobsite directing the monitoring, and inspecting the lead-containing paint removal work to ensure that the requirements of the Contract have been satisfied during the entire lead-containing paint removal operation.

b. Take personal air monitoring samples on employees who are anticipated to have the greatest risk of exposure as determined by the CIH. In addition, take air-monitoring samples on at least 25 percent of the work crew or a minimum of two employees, whichever is greater, during each work shift.

c. Submit results of air monitoring samples within 2-3 days after the air samples are taken. Notify the Contracting Officer immediately of exposure to lead at or in excess of the action level of 30 micrograms per cubic meter of air outside of the lead control area. This submittal schedule and subsequent air monitoring may be revised after exposure levels have been established and with the approval of the Contracting Officer.

d. When observing the test patch or mock up of the exterior paint removal techniques, the Historic Architect will not be required to don a respirator or PPE.

3.2.2.1 Monitoring During Paint Removal Work

Perform personal and area monitoring during the entire paint removal operation. Sufficient area monitoring shall be conducted at the physical boundary to ensure unprotected personnel are not exposed above 30 micrograms per cubic meter of air at all times. If the outside boundary lead levels are at or exceed 30 micrograms per cubic meter of air, work shall be stopped and the Contractor shall immediately correct the condition(s) causing the increased levels and notify the Contracting Officer. The CIH or his/her designated representative shall review the sampling data collected on that day to determine if condition(s) requires any further change in work methods. Removal work shall resume when the Contracting Officer gives approval. The Contractor shall control the lead level

outside of the work boundary to less than 30 micrograms per cubic meter of air at all times. As a minimum, conduct area-monitoring daily on each shift in which lead paint removal operations are performed in areas immediately adjacent to the lead control area. For outdoor operations, at least one sample on each shift shall be taken on the downwind side of the lead control area. If adjacent areas are contaminated, clean and visually inspect contaminated areas. Air monitoring protocols may be revised after ambient air lead levels have been established (below 30 micrograms per cubic meter of air) and with the approval of the Contracting Officer. The CIH or his/her designated representative shall certify that the area has been cleaned of lead contamination.

INTERIOR ABATEMENT MONITORING

Work Area Isolation:
The purpose of the Owner's abatement monitoring is to detect faults in the work area isolation such as:

- Contamination of the building outside of the work area with airborne lead particles.
- Failure of filtration or rupture in the differential pressure system (if used) causing contamination of air outside the building with airborne lead dust.

Should any of the above occur immediately cease lead abatement activities until the fault is corrected. Do not recommence work until authorized by the Owner's Representative.

WORK AREA AIRBORNE LEAD LEVELS:

The Owner will monitor airborne lead dust levels in the Work Area. The purpose of this monitoring will be to detect airborne lead concentrations which may challenge the ability of the Work Area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne lead particles.

Note: Air samples analysis will be conducted in accordance with method NIOSH 7082

Work area clearance:
To determine if the elevated airborne lead levels encountered during abatement operations have settled and subsequently been removed by cleaning, the Owner will collect and analyze wipe samples per Section 01714 Work Area Clearance.

Note: Wipe sample analysis will be conducted in accordance with Method-EPA 7421

STOP ACTION LEVELS:

If at any time in the abatement process the outside work area air monitoring results indicate that the concentration is at or above the OSHA PEL (50 ug/cubic meter), or 25 ug/m^3 above the background level, whichever is lesser, cease all work except corrective action. After correcting cause of high lead levels outside the work area, HEPA vacuum all surfaces that potentially could be contaminated; wet wipe using TSP solution, all wetable surfaces; and HEPA vacuum a second time. If cause of high lead levels is inconclusive, or if a second outside high lead level sample is obtained, Contractor will immediately go to next higher containment level (i.e. from containment to containment with negative air, etc.)

	CONTAINMENT LEVEL			
8-hour Air Monitoring Average (ug/m^3)	<50	>50 ≤500	>500 ≤2,500	>2,500 ≤50,000
Containment Level	plastic on floor (1 foot out/each foot up)	full plastic enclosure (critical seals, 2 layers of plastic on all surfaces except ceiling)	full plastic enclosure with negative air	same with attached shower facility
Respiratory Protection	Minimum of half-face, cartridge HEPA respirator		PAPR	Type C

GENERAL: Provide worker protection as required by the most stringent OSHA and/or HUD standards applicable to the work. The following procedures are minimums to be adhered to regardless of lead dust levels in the Work Area.

Respirators and protective clothing are required in the Work Area from the time any lead-based paint surface is broken until Work Area has been clearance tested.

3.3 LEAD-CONTAINING EXTERIOR PAINT REMOVAL

Remove loose and damaged paint as necessary to prepare surfaces for repainting on exterior windows at the Comal County Courthouse. Coordinate with the General Contractor to determine the extent of paint to be removed. Due to the historical nature of the project, care must be taken to protect the integrity of the substrate. Chemical peel removal techniques are therefore recommended. In order to verify the effectiveness of the

particular removal method, the contractor will contact the Historic Architect to arrange test patch testing prior to initiating the project.

METHODS OF INTERIOR ABATEMENT

In performing removal or selected demolition work, workers will generate lead dust. One method of dust control is misting or wet spraying of components and surrounding areas before removal work is started. The Contractor shall insure no visible dust is created by their operations at any time.

Heat-Based Removal Methods (Optional):

Because high levels of airborne lead can be produced and dispersed by heat guns, respirator protection is required. At the temperature expected to occur during paint removal operations with most currently available heat guns, some lead fume is likely to be generated. Heat guns should not be operated in excess of 700°F.

On-site Chemical Removal Methods:

On-site chemical removal methods may require multiple applications depending on the number of layers of paint. Caustic and solvent-based chemicals should not be allowed to dry on the lead-painted surface. If drying occurs, paint removal will not be satisfactory and the potential for creating lead dust in the process will be increased. In particular, caustic chemicals that require a plastic covering must first be removed. When the plastic covering is applied, care should be taken to cover and seal the edges and ends to prevent drying.

3.4 CLEANUP AND DISPOSAL

3.4.1 Cleanup

Maintain surfaces of the lead control area free of accumulations of lead paint debris. Keep waste from being distributed over the work area. At the end of each shift and when the paint removal operation has been complete, clean the area of visible lead paint debris. After clearances have been obtained, collect all layers of plastic sheeting and dispose of as contaminated waste.

FINAL INTERIOR INSPECTION:

After the final cleanup is complete, the final inspection will take place. The objective of the

inspection is to insure abatement completeness and verify low, surface dust levels.

Post-abatement Visual Inspection:

Confirms job completeness by determining whether all surfaces have been abated according to the approved abatement plan. Special attention will be given to connections, junction boxes, light fixtures, etc. where lead dust has accumulated.

Pre-clearance Dust Test:

The inspector will determine whether the work area has been adequately cleaned by examining all surfaces for dust and debris. A damp cloth (or baby wipe) will be used to collect dust from surfaces such as floors or window sills. If dust is found in the work area, reclean the entire area and repeat the damp cloth test.

INTERIOR CLEARANCE CRITERIA:

In each area within an individual unit, compare the wipe sample results with the clearance criteria below. If any of the wipe samples exceed the clearance criteria, the area must be cleaned again and retested until the criteria are met. In the case of exterior abatement, the standard for floors shall be applied to porches.

Floors/Horizontal surfaces: 200 micrograms per square foot.

Window Sills: 500 micrograms per square foot.

Window Wells: 800 micrograms per square foot.

If all wipe sample results for each area meet the clearance criteria, the area is cleared for re-occupancy.

A unit may be cleared for re-occupancy only after all areas within that unit have been cleared according to the criteria above.

3.4.2 Certification

After receipt of site clearance samples, the CIH or his/her designated representative shall certify in writing that the lead control area air monitoring samples are less than 30

micrograms per cubic meter of air, the respiratory protection for the employees was adequate, the work procedures were performed in accordance with 29 CFR 1926.62 and that there were no visible or residual accumulations of lead-contaminated paint debris on the worksite. Do not remove the lead control area or barricades and warning signs prior to the Contracting Officer's receipt of this certification. Reclean\ areas showing residual paint or paint debris.

3.4.3 Disposal

a. Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing and place in U.S. Department of Transportation approved containers (49 CFR 178). Label the containers in accordance with 29 CFR 1926.62.

b. Handle, store, transport, and dispose lead or lead-contaminated waste in accordance with 40 CFR 260, 30 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, and 40 CFR 266. Comply with land disposal restriction notification requirements as required by 40 CFR 268.

--End of Section—

OSHA Written Compliance Plan

Date: 5/26/10

This plan has been developed to comply with the OSHA Construction Lead Standard, 29 CFR 1926.62.

1. Location of Project:

This job will take place at the Comal County Courthouse, 199 Main Plaza, New Braunfels, Texas. Previous lead inspections of this building by PSI, Inc., revealed that interior and exterior building components are coated with lead-based paint (the range was 1.0 mg/cm^2 to >9.9 mg/cm^2). In some areas the existing lead-based paint on the exterior is deteriorated, with loose and peeling paint chips. The interior LBP is in good condition. The existing lead-based paint represents a potential hazard to workers who may disturb it during lead hazard control or renovation activities.

2. Brief Description of Job:

It is likely that encapsulation of interior LBP in good condition will suffice for a majority of the project. If required, the abatement of selected areas will involve the removal of loose, flaking and/or damaged paint surfaces on the exterior window components and applying an appropriate encapsulant. Due to the historical nature of the project, care must be taken to protect the integrity of the substrate. Chemical peel paint removal, with products such as “Peel Away” is therefore recommended to be used after test patch results prove satisfactory.

3. Schedule:

The job is expected to start on _____ (date) and end on _____ (date). This compliance plan will take effect immediately on _____(date). The competent person will conduct worksite visual inspections on a daily basis.

Work will proceed according to the following schedule:

Day 1: Initial setup, followed by:
_____ (name all tasks to be completed)
_____
_____

Daily cleanup: wet mopping, HEPA vacuuming

Day 2 through Final Cleaning:

_____ (name all tasks to be completed)
_____
_____

Daily cleanup: wet mopping, HEPA vacuuming

4. Equipment and Materials:

The primary activities that are expected to generate leaded dust are manual scraping and cleaning involved with damaged paint removal, and surface preparation. Equipment to be used may include, but not necessarily limited to the following: HEPA vacuums, cleaning detergents, protective clothing, cotton work gloves, electric power saws, hammers, wrecking bars, pry bars, screwdrivers, plastic sheeting, metal scrapers, compressed air-powered water pumps, rollers, brushes, butyl rubber gloves, respirators, cutting shears, mops, plastic sheeting, paintbrushes, paint rollers.

5. Crew:

The work will be completed by a crew of _____(insert number) workers. Crew assignments are
as follows:
Crew 1 _____(name) _____ (task)

Crew 2 _____(name) _____ (task)

6. Competent Person:

_____(Name), a certified lead abatement supervisor, will be onsite at all times and will act as the competent person for occupational health and safety issues. The lead supervisor license (or certificate) number is:_____. The lead supervisor will conduct daily inspections of the work areas to ensure that control
measures, work practices, personal protective equipment, and hygiene facilities are used as prescribed in this document.

7. Control Measures:

The primary control methods for this project are (check all that apply):

___X_ method substitution (building component replacement, enclosure)
_____ wet methods
___X_ chemical stripping methods
___X_ wrapping materials to be discarded in plastic
___X_ respiratory protection
_____ local exhaust ventilation (needle guns, vacuum blasting)

_____ general room ventilation
_____ on-the-job training
___X_ HEPA vacuums
___X_ containment (use of plastic barriers)

8. Technology Considered in Meeting the Permissible Exposure Limit:

The HUD Guidelines for Evaluation and Control of Lead Hazards in Housing and Protecting Workers and Their Communities From Lead Hazards: A Guide for Protective Work Practices, published by the Society of Occupational and Environmental Health, and other publications were reviewed to determine the appropriate engineering controls to be used in this project.

The only specialized equipment that will be utilized for this project are HEPA filtered vacuum cleaners and _____ (name all special equipment).

9. Respirators:

All individuals in the work area will be provided with a NIOSH/MSHA-approved half-mask, air-purifying respirator equipped with HEPA cartridges or a powered air-purifying respirator (if so requested). Respirators will be provided in the context of a complete respiratory protection program; the written respirator program is attached.

Respirators will be required during (name phases of job for which respirators will be required):
_____
_____
_____

Respirator use during other activities, including initial setup (laying down plastic for containment), and enclosure and encapsulation after surface preparation is not necessary, unless other workers nearby (same work area) are performing activities for which respirators are required.

10. Protective Clothing:

Disposable protective clothing will be worn at all times inside the work area. Protective clothing will be made of breathable fabric to reduce the potential for worker heat stress. If visibly contaminated with dust or paint chips, protective clothing will be vacuumed before it is removed.

11. Hygiene Facilities:

Hand washing facilities will be used to decontaminate workers, since leaded dust levels are expected to be low. Showers are used on jobs that generate high leaded dust levels. The facilities will be located in a portable trailer, which will be parked in the driveway of the building. The trailer will contain two sinks, a fresh water tank, hot water heater, wastewater collection tank, and easily cleanable floors and benches. Labeled plastic bins with covers will be used to separate disposable protective clothing from street clothing. Hot water, soap, and towels will be

provided. Hands and face will be washed before all breaks and at the end of the day. Wastewater will be collected, pretreated onsite with filtration, and disposed of in accordance with prior arrangements made with
_____(name of local water and sewage authority).

12. Air Monitoring Data:

Previous data for lead hazard control projects conducted with similar controls, environmental conditions, personnel, and methods were unavailable for review. Air sampling will therefore be performed on this job, since typical exposures for this type of work are unknown. The major exposures to lead are anticipated to occur during_____ _____ _____(name tasks during which substantial exposures are likely to occur). The following table illustrates the required actions under the OSHA Rules according to the exposure levels:

CATEGORY I	CATEGORY II	CATEGORY III
30 mg/m3* and under (below the action level)	30–50 mg/m3 (above the action level, but below the PEL).	50 mg/m3 and over (above the PEL).
Train employees. Conduct exposure monitoring. Maintain records.	Same as category I, plus: Provide respirator at employee request. Conduct exposure monitoring every 3 months. Conduct blood lead monitoring.	Same as category II, plus: Enforce respirator use. Enforce use of protective clothing. Develop monitoring every 6 months. Enforce housekeeping. Provide hygiene facilities and enforce washing.

* All exposure levels are 8-hour, time-weighted averages.

13. Medical Surveillance Program:

A medical surveillance program is already in place for this work crew. It is supervised by: Dr. _____ (name, address, and phone number of physician and/or firm).

Worker blood lead levels are measured initially before the onset of work, each month for the first 6 months of employment, and every 6 months thereafter. Blood lead levels for current employees who will be assigned to this job are between: _____ mg/dL to _____ mg/dL (list range of blood lead levels) based on the report dated _____ (add date for latest medical monitoring report). Worker blood lead increases of 10 mg/dL or greater or any blood lead level greater than 25 mg/dL will trigger an investigation of protective equipment and

work practices. All workers on this project are informed of their blood lead levels as soon as they are received.

14. Training:

All workers have been trained using the EPA Worker Training Curriculum. The training was conducted by _____, a licensed Texas Department of Health (TDH) training provider with _____, the competent person, on _____, (Date) Workers trained include:

Trainees/Social Security Number

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

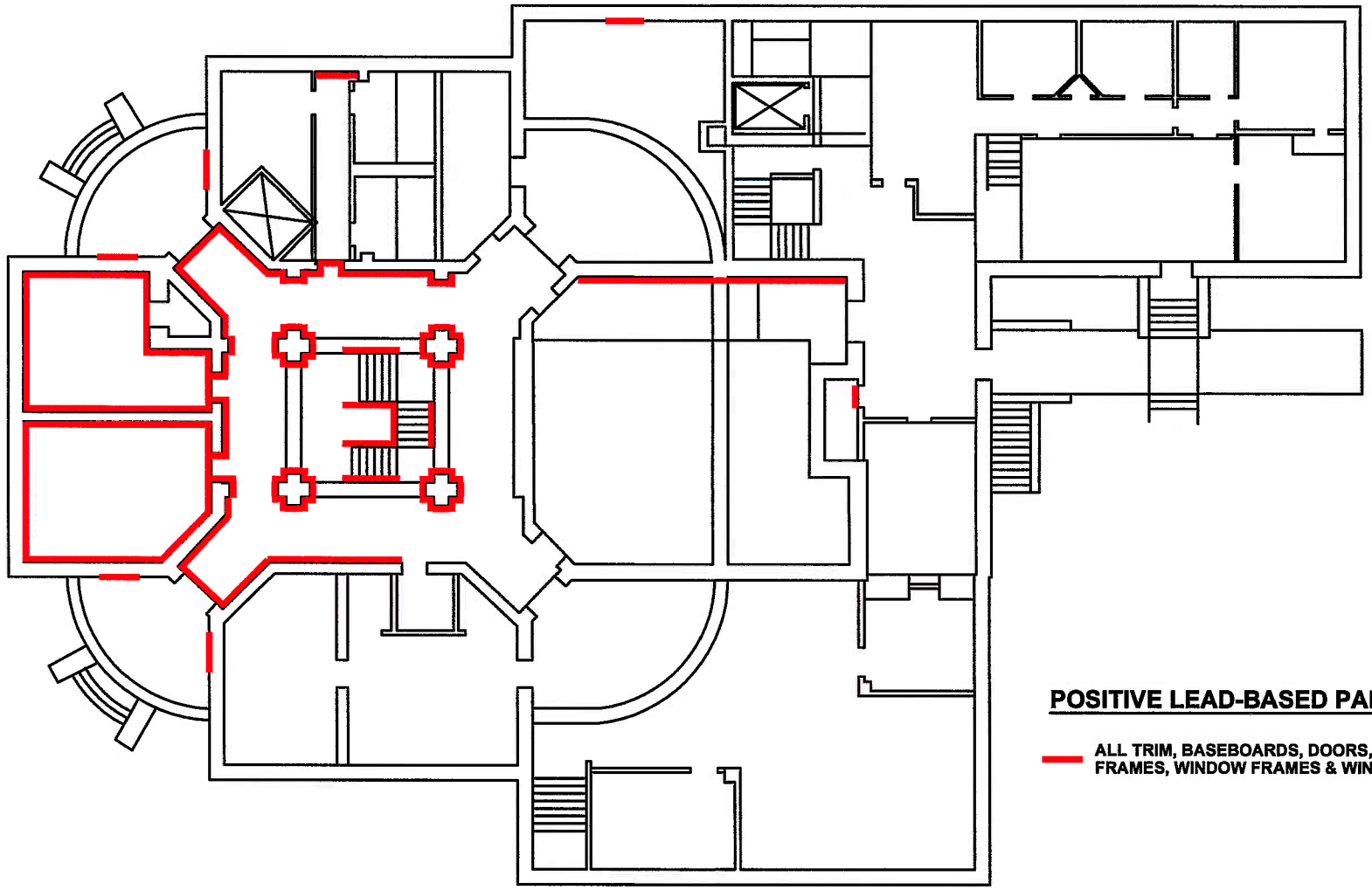
Plan completed by:

John D. Langan _____ (name)

_____ (signature)

5/26/10 _____ (date)

SCALE: NONE



POSITIVE LEAD-BASED PAINT

ALL TRIM, BASEBOARDS, DOORS, DOOR FRAMES, WINDOW FRAMES & WINDOW SILLS

FIRST FLOOR

NOTE:

LEAD-BASED PAINT IS LOCATED ON STAIR RAILINGS AND STAIR RISER BACKS ON ALL FLOORS.

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SAN ANTONIO, TEXAS 78216

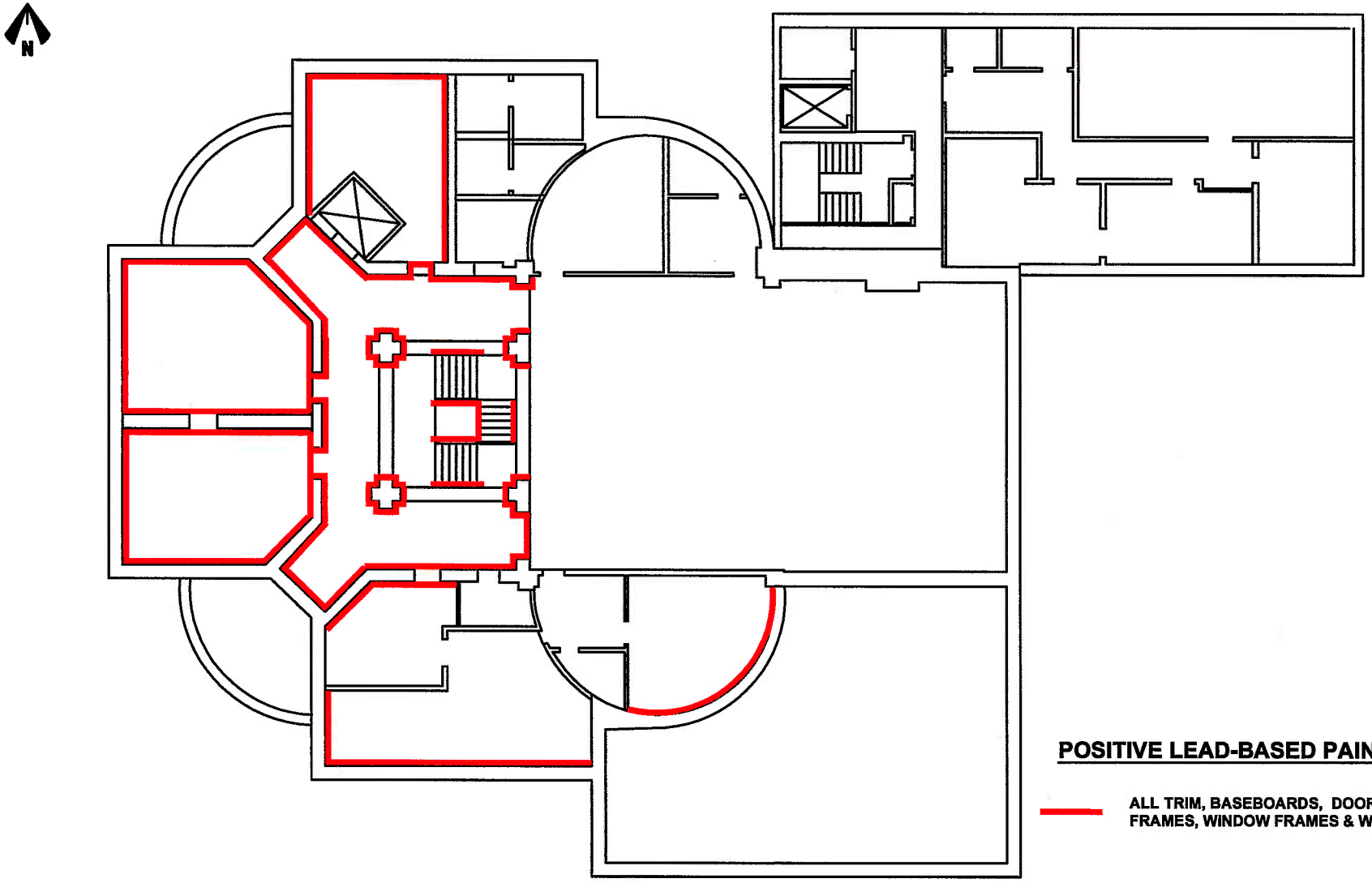
LEAD-BASED PAINT LOCATION MAP

COMAL COUNTY COURTHOUSE

199 MAIN PLAZA
NEW BRAUNFELS, TEXAS

DATE:	04/19/10
DRAWN BY:	J. LEAL
PROJECT #:	0435305
DRAWING NAME:	0435305-7

SCALE: NONE



SECOND FLOOR

POSITIVE LEAD-BASED PAINT

ALL TRIM, BASEBOARDS, DOORS, DOOR FRAMES, WINDOW FRAMES & WINDOW SILLS.

NOTE:

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SAN ANTONIO, TEXAS 78216

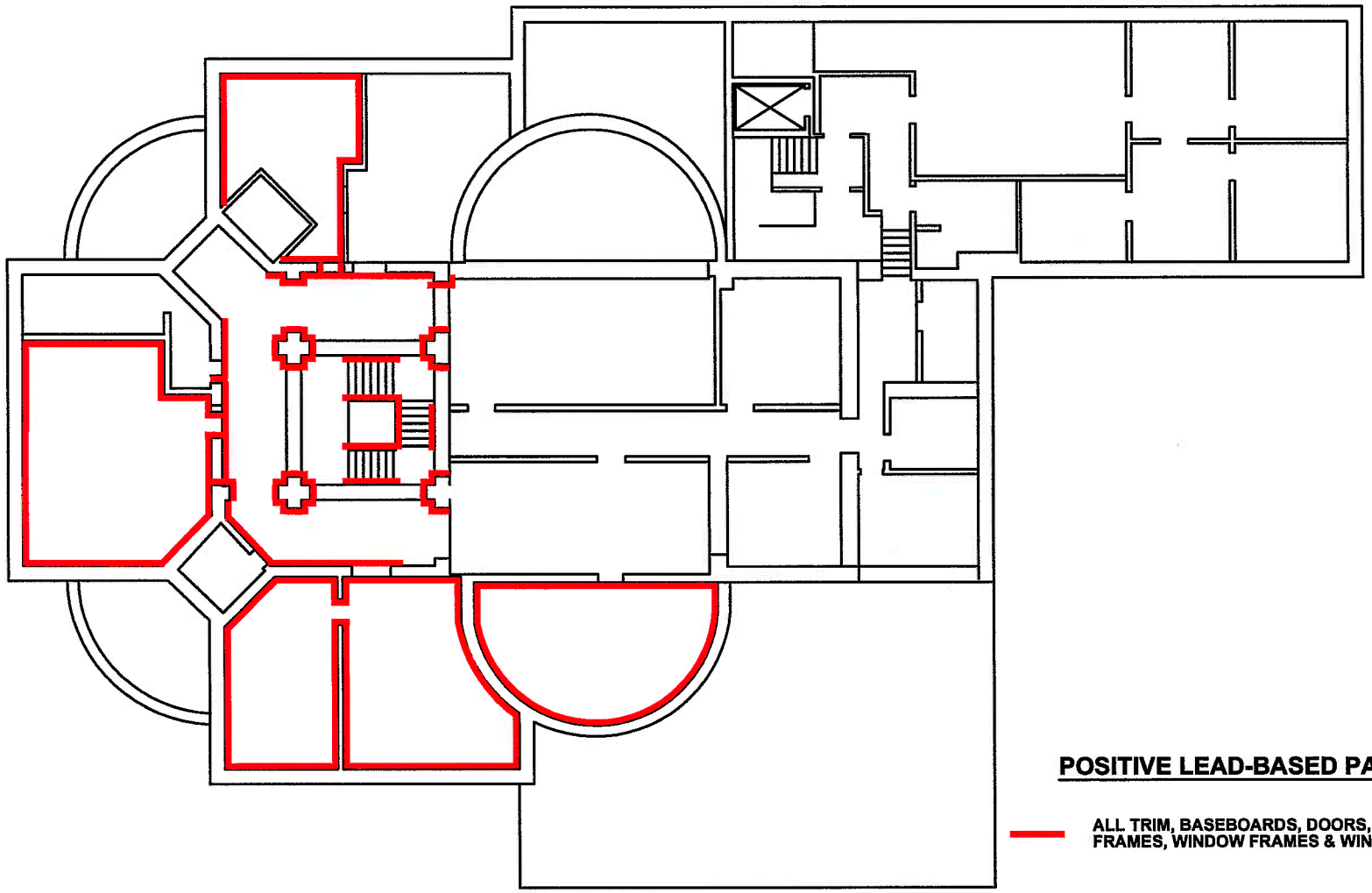
LEAD-BASED PAINT LOCATION MAP

COMAL COUNTY COURTHOUSE

199 MAIN PLAZA
NEW BRAUNFELS, TEXAS

DATE:	04/19/10
DRAWN BY:	J. LEAL
PROJECT #:	0435305
DRAWING NAME:	0435305-8

SCALE: NONE



POSITIVE LEAD-BASED PAINT

ALL TRIM, BASEBOARDS, DOORS, DOOR FRAMES, WINDOW FRAMES & WINDOW SILLS

THIRD FLOOR

NOTE:

LEAD-BASED PAINT IS LOCATED ON STAIR RAILINGS AND STAIR RISER BACKS ON ALL FLOORS.

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SAN ANTONIO, TEXAS 78216

LEAD-BASED PAINT LOCATION MAP

COMAL COUNTY COURTHOUSE

199 MAIN PLAZA
NEW BRAUNFELS, TEXAS

DATE:	04/19/10
DRAWN BY:	J. LEAL
PROJECT #:	0435305
DRAWING NAME:	0435305-9

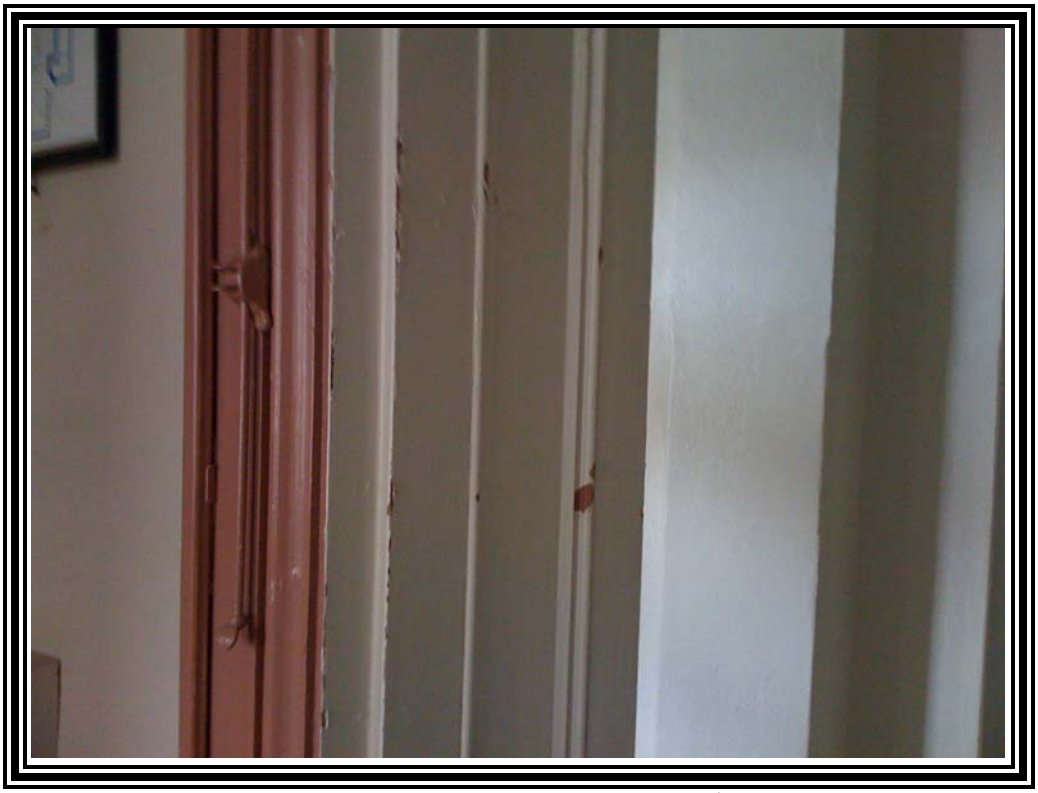
1. View of brown lead-based paint on interior wood window components, trim and baseboards on the first floor of the Comal County Courthouse

2. View of dark brown LBP on safe door and door frame, first floor Comal County Courthouse.

3. View of white LBP on wood trim on the first floor of the Comal County Courthouse.

4. View of white LBP on exterior wood window frame.

5. View of white LBP trim on the 2nd floor of the Comal County Courthouse.



6. View of white over brown LBP on wood door frame, 1st floor.