



818 S. FLORES ST.    SAN ANTONIO, TEXAS 78204    www.saha.org

Procurement Department

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## **REQUEST FOR QUOTATIONS**

**For**

### **ASBESTOS ABATEMENT AT 1507 SAN CARLOS**

**For**

### **HOUSING AUTHORITY OF THE CITY OF SAN ANTONIO, TEXAS AND AFFILIATED ENTITIES**

**Date Issued: December 19, 2011**

**RFQ #: 1109-910-38-3615**

**Closes January 6, 2012 @ 11:00 AM**

Prepared by:

**Department of Procurement  
of the  
San Antonio Housing Authority  
818 South Flores Street  
San Antonio, Texas 78204**

President and CEO..... Lourdes Castro Ramirez

December 2011

- 1.0 The Housing Authority of the City of San Antonio, Texas and its affiliated entities d/b/a San Antonio Housing Authority (“SAHA”) hereby invites independent Contractors to submit bids for asbestos abatement at 1507 San Carlos. The asbestos abatement is required for the health and safety of residents, guests and staff as well as for preservation of property.
- 2.0 SAN ANTONIO HOUSING AUTHORITY (SAHA) CONTACT: All questions pertaining to this quotation shall be addressed to Ian Montemayor, telephone 210-477-6582, fax 210-477-6167 or e-mail at [ian\\_montemayor@saha.org](mailto:ian_montemayor@saha.org).
- 3.0 APPLICABILITY: By submitting a quote (hereinafter referred to as "bid") to SAHA, the firm or individual doing so (hereinafter, "the bidder") is automatically agreeing to abide by all terms and conditions listed herein, including those terms and conditions within the HUD Handbook 7460.8 REV 2, Procurement Handbook for Public Housing Agencies, dated 2/2007, HUD Table 5.1, Mandatory Contract Clauses for Small Purchases Other Than Construction, HUD5370EZ, and the Davis Bacon Wage Decision. These documents may be obtained by contacting Ian Montemayor, telephone 210-477-6582, fax 210-477-6167 or e-mail at [ian\\_montemayor@saha.org](mailto:ian_montemayor@saha.org).

**ATTACHMENT A: HUD5370EZ**

**ATTACHMENT B: Davis Bacon Wage Decision**

**ATTACHMENT C: Specifications**

- 4.0 SAHA’s RESERVATION OF RIGHTS: SAHA reserves the right to:
  - 4.1 Reject any or all bids, to waive any informalities in the Solicitation process, or to terminate the Solicitation process at any time, if deemed by SAHA to be in the best interest of SAHA.
  - 4.2 Terminate a contract awarded pursuant to this Solicitation at any time for its convenience upon delivery of a 14-day written notice to the apparent or successful bidder.
  - 4.3 Determine the days, hours and locations that the successful bidder shall provide the items or services called for in this Solicitation.
  - 4.4 Reject and not consider any bid that does not, in the opinion of SAHA, meet the requirements of this Solicitation, including but not necessarily limited to incomplete bids and/or bids offering alternate (not including “or equal” items) or non-requested items or services.
  - 4.5 SAHA reserves the right to:
    - 4.5.1 To make an award to the same bidder (aggregate) for all items; or,
    - 4.5.2 To make an award to multiple bidders for the same or different items.

- 5.0 **BIDDER'S RESPONSIBILITY:** Each bidder must carefully review and comply with all instructions provided herein, or provided within any named attachments.
- 6.0 **DEADLINE:** Each bidder shall submit his/her proposed costs, prior to the posted deadline, where provided herein. Whereas this is an informal solicitation process, SAHA reserves the right to extend the posted deadline at any time prior to the deadline, if, in the opinion of SAHA, it is in the best interests of SAHA.
- 7.0 **HOLD PRICES/NON-ESCALATION:** By submitting a bid, each bidder thereby agrees to "hold" or not increase the proposed bid prices for a minimum period of ninety (90) days with no escalation. Quantities listed in this Solicitation are for the purpose of determining best pricing per line item.
- 8.0 **Method of Award:** SAHA may, at its sole discretion, procure the applicable goods or services by issuance of a PO or execution of a Contract. By submitting a bid, the successful proposer agrees to accept the PO or execute the contract.
- 9.0 **Fees:** All fees are all-inclusive of all related costs that a proposer will incur to provide the noted services in compliance with this RFQ, including, but not limited to: employee wages and benefits, clerical support, travel and lodging, overhead, profit, licensing, insurance, materials, supplies, tools, equipment, long distance telephone calls, document copying and motor vehicle fuel, fully burdened.
- 10.0 **AWARD CRITERIA:** If an award is completed pursuant to this Solicitation, and unless otherwise instructed by SAHA, an award shall be made to the responsive and responsible contractor that submits the best value to SAHA using price and other factors listed below.

Experience, Cost and Days to complete the project

- 11.0 **BID COSTS:** There shall be no obligation for SAHA to compensate any bidder or prospective bidder for any costs that he/she may incur in responding to this Solicitation.
- 12.0 **ASSIGNMENT OF PERSONNEL:** SAHA retains the right to demand and receive a change in personnel assigned by the successful bidder to provide services to SAHA if SAHA believes that such change is in the best interest of SAHA and the completion of the work or provision of the items.
- 13.0 **UNAUTHORIZED SUB-CONTRACTING PROHIBITED:** The successful bidder shall not assign any right, nor delegate any duty for the work proposed pursuant to this Solicitation (including, but not limited to, selling or transferring the ensuing PO or contract) without the prior written consent of SAHA. Any purported assignment of interest or delegation of duty, without the prior written consent of SAHA shall be void and may result in the cancellation of the PO or contract with SAHA.

**14.0 LICENSING REQUIREMENTS: By submitting a bid the successful bidder thereby certifies that he/she possess and will, prior to issuance of a PO by SAHA, present to SAHA, proof and/or certification of the following:**

**14.1 If applicable, local business license or permit issued by the City of San Antonio.**

**14.2 If applicable, a copy of the bidder's license issued by the State of Texas licensing authority allowing the bidder to provide the services or products as detailed herein.**

**15.0 SPECIFICATIONS /SCOPE OF WORK FOR THIS SOLICITATION:**

**15.1 Contractor shall comply with the attached asbestos abatement plan (#90117248) as well as all Federal, State, and local laws, regulations, ordinances, and codes and have current licenses or permits required to perform the services under this quote.**

**15.2 The contractor shall secure and pay for all permits, fees, and licenses required for the proper execution and completion of the work.**

**15.6 Responses shall include all cost to abate all asbestos contaminated building materials from these units, as per the attached asbestos abatement plan and the estimated timeframe to complete the asbestos abatement and cleanup.**

**15.7 All inspections shall be conducted by a licensed abatement inspector and appropriate local, State, or Federal regulatory personnel.**

**15.8 Any and all debris created by the repairs shall be disposed of off-site and in accordance with applicable local, State, and Federal laws and regulations.**

**15.9 Contractor shall use equipment and products that meet or exceed acceptable industry standards and in all cases meet or exceed the requirements of the local building codes.**

**15.10 Specifications are ATTACHMENT C: Specifications for Asbestos Abatement as it pertains to Cassiano Homes-1507 San Carlos. Plan No. 90117248.**

**15.11 Contractor shall supply all material, equipment and labor to complete this project. All work must be in accordance with State of Texas code and best industry practices. Acceptance by SAHA is required prior to payment. Acceptance is based on meeting all codes.**

**15.12 Responses may be hand delivered to:**  
**San Antonio Housing Authority,**  
**Attn: Ian Montemayor,**  
**818 S. Flores, San Antonio, TX 78204, or**  
**Faxed to: Attn. Ian Montemayor at 210-477-6167 or**  
**Emailed to: ian\_montemayor@saha.org**

**16.0 INSURANCE:** The following table details the standard liability policies with the required limits and waivers of subrogation required by SAHA of all contractors performing work on SAHA property.

<b>Professional Liability</b>	<b>Required Limits</b>
SAHA and its affiliates must be named as an Additional Insured and be a Certificate Holder. This is required for vendors who render observational services to SAHA such as appraisers, inspectors, attorneys, engineers or consultants.	\$1,000,000
<b>Business Automobile Liability</b>	<b>Required Limits</b>
SAHA and its affiliates must be named as an additional insured and as the certificate holder. This is required for any vendor that will be using their vehicle to do work on SAHA properties.	\$500,000 combined single limit, per occurrence
<b>Workers Compensation and Employer's Liability</b>	<b>Required Limits</b>
Workers' Compensation coverage is Statutory and has no pre-set limits. Employer's Liability limit is \$500,000. Workers' Compensation is required for any vendor made up of more than one person. A Waiver of Subrogation in favor of SAHA must be included in the Workers' Compensation policy. SAHA and its affiliates must be a Certificate Holder.	Statutory \$500,000
<b>Commercial General Liability</b>	<b>Required Limits</b>
This is required for any vendor who will be doing hands on work at SAHA properties. SAHA and its affiliates must be named as an Additional Insured and as the Certificate Holder.	\$1,000,000 per accident \$2,000,000 aggregate

**17.0 Invoicing:** Invoices shall be sent to: San Antonio Housing Authority, Accounts Payable, P.O. Box 830428, San Antonio, TX 78283-0428 or may be e-mailed to [Accounts\\_Payable@saha.org](mailto:Accounts_Payable@saha.org). Contractor shall invoice SAHA within 60 days after the delivery of the goods or service. If contractor fails to invoice within 60 days SAHA reserves the right to not pay the invoice. Upon the Award of Contract, Contractor shall receive a request from SAHA to process all payments electronically to insure prompt and efficient payment of all invoices.

**18.0 WARRANTY:** All services and goods provided pursuant to this RFQ and the resulting contract shall be covered by the most favorable commercial warranties given to any customer for same or similar supplies or services, but in any event such goods and services shall be warranted for at least a period of two (2) years.

**19.0 Fair Labor Standards Act:** Both parties hereby agree to comply with the provisions of the Fair Labor Standards Act (29 U.S.C. 201, et seq).

**20.0 Davis-Bacon Act:** For all construction contracts awarded in excess of \$2,000 when required by Federal Grant Program legislation, both parties hereby agree to

comply with the Davis-Bacon Act (40 U.S.C. 276a to 276a-7) as supplemented in Department of Labor Regulations (29 CFR Part 5) and attached wage decision.

**21.0 Training and Employment Opportunities for Residents in the Project Area (Section 3, HUD Act of 1968; 24 CFR 135)**

(a) The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

(b) The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.

(c) The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

(d) The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.

(e) The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR Part 135.

(f) Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

(g) In addition Contractor shall comply with SAHA Section 3 program, policy and procedures adopted on April 6, 2011 and any amendments.

**Quote Form**  
**RFQ #1109-910-38-3615**  
**Closes on January 6, 2012 at 11:00AM**

**1. Cost to abate the asbestos at 1507 San Carlos: TOTAL BID \$ \_\_\_\_\_**  
**Delivery in \_\_\_\_\_ days**

**(Failure to enter a delivery date shall subject bidder to 10 days for completion)**

**1. Sub-Contractors: Proposer shall identify his sub-contractors if any:**

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

Non-Collusive Affidavit: The undersigned party submitting this proposal hereby certifies that such bid is genuine and not collusive and that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or of any other bidder, to fix overhead, profit or cost element of said bid price, or that of any other bidder or to secure any advantage against the SAHA or any person interested in the proposed contract; and that all statements in said bid are true.

**Initials** \_\_\_\_\_

In performing this contract, the contractor(s) shall comply with any and all applicable federal, state or local laws including but not limited to: Occupational Safety & Health, Equal Employment Opportunity, Immigration and Naturalization, The Americans with Disabilities Act, State Tax and Insurance Law, and the Fair Housing Act.

**Initials** \_\_\_\_\_

In submitting this bid, it is understood if written notice of the acceptance of this bid is mailed, e-mailed, or delivered to the undersigned within ninety (90) days after the opening thereof, or at any time thereafter before this bid is withdrawn, the undersigned agrees to execute and deliver the products and/or services described herein. By signature hereon the bidder certifies he has the right and authority to bind the company.

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Firm)

\_\_\_\_\_  
(Signature) (Printed name and title)

\_\_\_\_\_  
(Business address,)

\_\_\_\_\_  
(Phone) (E-mail)

### Proposers Certification

By signing below, Proposer certifies that the following statements are true and correct:

1. He/she has full authority to bind Proposer and that no member of Proposer's organization is disbarred, suspended or otherwise prohibited from contracting with any federal, state or local agency;
2. Items for which bids were provided herein will be delivered as specified in the bid,
3. Proposer proposes to furnish and deliver in accordance with the terms, conditions, and specifications embodied herein, all of which terms, conditions, and specifications are hereby accepted and made a part of this bid, all materials and supplies, which are described on the bid worksheets herein and opposite of which prices have been entered, at the price or prices quoted, subject to valid price reductions as hereafter defined, as ordered for delivery, by SAHA,
4. Proposer agrees that this bid shall remain open and valid for at least a period of 90 days from the date of the Bid Opening and that this bid shall constitute an offer, which, if accepted by SAHA and subject to the terms and conditions of such acceptance, shall result in a contract between SAHA and the undersigned Proposer,
5. He/she has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with this bid,
6. Proposer, nor the firm, corporation, partnership, or institution represented by the Proposer, or anyone acting for such firm, corporation or institution has violated the antitrust laws of the State of Texas or the Federal Antitrust laws, nor communicated directly or indirectly the bid made to any competitor or any other person engaged in such line of business,
7. Proposer has not received compensation for participation in the preparation of the specifications for this RFP, and
8. The individual or business entity named in this bid is eligible to receive the specified payment and acknowledges that this Contract may be terminated and payment may be withheld if this certification is inaccurate,

SIGNED: \_\_\_\_\_

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Print Company Name)

\_\_\_\_\_  
(Company Phone & Fax & Email Address)

\_\_\_\_\_  
(Date)

# **ATTACHMENT A**

**HUD 5370 EZ**

# General Contract Conditions for Small Construction/Development Contracts

U.S. Department of Housing and Urban Development  
Office of Public and Indian Housing  
OMB Approval No. 2577-0157 (exp. 12/31/2011)

**Applicability.** The following contract clauses are applicable and must be inserted into small construction/development contracts, greater than \$2,000 but not more than \$100,000.

## 1. Definitions

Terms used in this form are the same as defined in form HUD-5370

## 2. Prohibition Against Liens

The Contractor is prohibited from placing a lien on the PHA's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers. The only liens on the PHA's property shall be the Declaration of Trust or other liens approved by HUD.

## 3. Disputes

- (a) Except for disputes arising under the **Labor Standards** clauses, all disputes arising under or relating to this contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this clause.
- (b) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the PHA against the Contractor shall be subject to a written decision by the Contracting Officer.
- (c) The Contracting Officer shall, within 30 days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.
- (d) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in the PHA in accordance with the PHA's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within 30 days after receipt of the Contracting Officer's decision.
- (e) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

## 4. Default

- (a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with the diligence that will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within this time, the Contracting Officer may, by written notice to the Contractor, terminate the right to proceed with the work (or separable part of the work) that has been delayed. In the event, the PHA may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, equipment, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the PHA resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the PHA in completing the work.

- (b) The Contractor's right to proceed shall not be terminated or the Contractor charged with damages under this clause if –
  - (1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor; and
  - (2) The Contractor, within 10 days from the beginning of such delay notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay. If, in the judgment of the Contracting Officer, the findings of Fact warrant such action, time for completing the work shall be extended by written modification to the contract. The findings of the Contracting Officer shall be reduced to a written decision which shall be subject to the provisions of the **Disputes** clause of this contract.
- (c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligation of the parties will be the same as if the termination had been for convenience of the PHA.

## 5. Termination for Convenience

- (a) The Contracting Officer may terminate this contract in whole, or in part, whenever the Contracting Officer determines that such termination is in the best interest of the PHA. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which the performance of the work under the contract is terminated, and the date upon which such termination becomes effective.
- (b) If the performance of the work is terminated, either in whole or in part, the PHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by the PHA of a properly presented claim setting out in detail: (1) the total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor; (2) the cost (including reasonable profit) of settling and paying claims under subcontracts and material orders for work performed and materials and supplies delivered to the site, payment for which has not been made by the PHA to the Contractor or by the Contractor to the subcontractor or supplier; (3) the cost of preserving and protecting the work already performed until the PHA or assignee takes possession thereof or assumes responsibility therefore; (4) the actual or estimated cost of legal and accounting services reasonably necessary to prepare and present the termination claim to the PHA; and (5) an amount constituting a reasonable profit on the value of the work performed by the Contractor.
- (c) The Contracting Officer will act on the Contractor's claim within days (60 days unless otherwise indicated) of receipt of the Contractor's claim.
- (d) Any disputes with regard to this clause are expressly made subject to the provisions of the Disputes clause of this contract.

## 6. Insurance

- (a) Before commencing work, the Contractor and each subcontractor shall furnish the PHA with certificates of insurance showing the following insurance is in force and will insure all operations under the Contract:

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(1) Workers' Compensation, in accordance with state or Territorial Workers' Compensation laws.

(2) Commercial General Liability with a combined single limit for bodily injury and property damage of not less than \$1,000,000 per occurrence to protect the

Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under (3) below. If the Contractor has a "claims-made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

(3) Automobile Liability on owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than \$500,000 per occurrence.

(b) Before commencing work, the Contractor shall furnish the PHA with a certificate of insurance evidencing that Builder's Risk (fire and extended coverage) Insurance on all work in place and/or materials stored at the building site(s), including foundations and building equipment, is in force. The Builder's Risk Insurance shall be for the benefit of the Contractor and the PHA as their interests may appear and each shall be named in the policy or policies as an insured. The Contractor in installing equipment supplied by the PHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by the PHA. The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the superstructure is started. It need not be carried on landscape work. Policies shall furnish coverage at all times for the full cash value of all completed construction, as well as materials in place and/or stored at the site(s), whether or not partial payment has been made by the PHA. The Contractor may terminate this insurance on buildings as of the date taken over for occupancy by the PHA. The Contractor is not required to carry Builder's Risk Insurance for modernization work which does not involve structural alterations or additions and where the PHA's existing fire and extended coverage policy can be endorsed to include such work.

(c) All insurance shall be carried with companies which are financially responsible and admitted to do business in the State in which the project is located. If any such insurance is due to expire during the construction period, the Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer. All certificates of insurance, as evidence of coverage, shall provide that no coverage may be canceled or non-renewed by the insurance company until at least 30 days prior written notice has been given to the Contracting Officer.

## 7. Contract Modifications

(a) Only the Contracting Officer has authority to modify any term or condition of this contract. Any contract modification shall be authorized in writing.

(b) The Contracting Officer may modify the contract unilaterally (1) pursuant to a specific authorization stated in a contract clause (e.g., Changes); or (2) for administrative matters which

do not change the rights or responsibilities of the parties (e.g., change in the PHA address). All other contract modifications shall be in the form of supplemental agreements signed by the Contractor and the Contracting Officer.

(c) When a proposed modification requires the approval of HUD prior to its issuance (e.g., a change order that exceeds the PHA's approved threshold), such modification shall not be effective until the required approval is received by the PHA.

## 8. Changes

(a) The Contracting Officer may, at any time, without notice to the sureties, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract including changes:

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) PHA-furnished facilities, equipment, materials, services, or site; or,

(4) Directing the acceleration in the performance of the work.

(b) Any other written order or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating (1) the date, circumstances and source of the order and (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no proposal for any change under paragraph (b) above shall be allowed for any costs incurred more than 20 days (5 days for oral orders) before the Contractor gives written notice as required. In the case of defective specifications for which the PHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause, or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting a written statement describing the general nature and the amount of the proposal. If the facts justify it, the Contracting Officer may extend the period for submission. The proposal may be included in the notice required under paragraph (b) above. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(f) The Contractor's written proposal for equitable adjustment shall be submitted in the form of a lump sum proposal supported with an itemized breakdown of all increases and decreases in the contract in at least the following details:

(1) Direct Costs. Materials (list individual items, the quantity and unit cost of each, and the aggregate cost); Transportation and delivery costs associated with materials; Labor

breakdowns by hours or unit costs (identified with specific work to be performed); Construction equipment exclusively necessary for the change; Costs of preparation and/ or revision to shop drawings resulting from the change; Worker's Compensation and Public Liability Insurance; Employment taxes under FICA and FUTA; and, Bond Costs - when size of change warrants revision.

- (2) Indirect Costs. Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.
- (3) Profit. The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change.

The allowability of the direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms in Part 31 of the Federal Acquisition Regulation (48 CFR 1-31), as implemented by HUD Handbook 2210.18, in effect on the date of this contract. The Contractor shall not be allowed a profit on the profit received by any subcontractor. Equitable adjustments for deleted work shall include a credit for profit and may include a credit for indirect costs. On proposals covering both increases and decreases in the amount of the contract, the application of indirect costs and profit shall be on the net-change in direct costs for the Contractor or subcontractor performing the work.

- (g) The Contractor shall include in the proposal its request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the contract in its entirety.
- (h) The Contracting Officer shall act on proposals within 30 days after their receipt, or notify the Contractor of the date when such action will be taken.
- (i) Failure to reach an agreement on any proposal shall be a dispute under the clause entitled Disputes herein. Nothing in this clause, however, shall excuse the Contractor from proceeding with the contract as changed.
- (j) Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior order from the Contracting Officer.

## 9. Examination and Retention of Contractor's Records

The HA, HUD, or Comptroller General of the United States, or any of their duly authorized representatives shall, until three years after final payment under this contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this contract for the purpose of making audit, examination, excerpts, and transcriptions.

## 10. Rights in Data and Patent Rights (Ownership and Proprietary Interest)

The HA shall have exclusive ownership of, all proprietary interest in, and the right to full and exclusive possession of all information, materials, and documents discovered or produced by Contractor pursuant to the terms of this Contract, including but not limited to reports, memoranda or letters concerning the research and reporting tasks of this Contract.

## 11. Energy Efficiency

The Contractor shall comply with all mandatory standards and policies relating to energy efficiency which are contained in the energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub.L. 94-163) for the State in which the work under this contract is performed.

## 12. Procurement of Recovered Materials

- (a) In accordance with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items: (1) are not reasonably available in a reasonable period of time; (2) fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of Standards and Technology, if applicable to the item; or (3) are only available at an unreasonable price.
- (b) Paragraph (a) of this clause shall apply to items purchased under this contract where: (1) the Contractor purchases in excess of \$10,000 of the item under this contract; or (2) during the preceding Federal fiscal year, the Contractor: (i) purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and (ii) purchased a total of in excess of \$10,000 of the item both under and outside that contract.

## 13. Training and Employment Opportunities for Residents in the Project Area (Section 3, HUD Act of 1968; 24 CFR 135)

- (a) The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- (b) The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.
- (c) The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the

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qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

- (d) The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.
- (e) The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR Part 135.
- (f) Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

#### **14. Labor Standards - Davis-Bacon and Related Acts**

##### **(a) Minimum Wages.**

(1) All laborers and mechanics employed under this contract in the construction or development of the project(s) involved will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the regular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in

a prominent and accessible place where it can be easily seen by the workers.

- (2) (i) Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:
  - (a) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
  - (b) The classification is utilized in the area by the construction industry; and
  - (c) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (ii) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employee Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.
- (iii) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.
- (iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (a)(2)(ii) or (iii) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (3) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (4) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part

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of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; *provided*, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

- (b) **Withholding of Funds.** HUD or its designee shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working in the construction or development of the project, all or part of the wages required by the contract, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the Contractor, disburse such amounts withheld for and on account of the Contractor or subcontractor to the respective employees to whom they are due.

(c) **Payrolls and Basic Records.**

- (1) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working in the construction or development of the project. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under 29 CFR 5.5(a)(1)(iv), that the wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of

the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

- (2) (i) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under subparagraph (c)(1) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1214-0149.)
- (ii) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (A) That the payroll for the payroll period contains the information required to be maintained under paragraph (c)(1) of this clause and that such information is correct and complete;
- (B) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; and
- (C) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (iii) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirements for submission of the "Statement of Compliance" required by subparagraph (c)(2)(ii) of this clause.
- (iv) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.
- (3) The Contractor or subcontractor shall make the records required under subparagraph (c)(1) available for inspection, copying, or transcription by authorized representatives of HUD or its designee, the Contracting Officer, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(d) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services (OATELS), or with a State Apprenticeship Agency recognized by OATELS, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(e) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate

specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (f) **Equal Employment Opportunity.** The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.
- (g) **Compliance with Copeland Act Requirements.** The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.
- (h) **Contract Termination; Debarment.** A breach of the labor standards clauses in this contract may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.
- (i) **Compliance with Davis-Bacon and related Act Requirements.** All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (j) **Disputes Concerning Labor Standards.** Disputes arising out of the labor standards provisions of this clause shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the PHA, HUD, the U.S. Department of Labor, or the employees or their representatives.
- (k) **Certification of Eligibility.**
- (1) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
  - (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a United States Government

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contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(3) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

(l) **Subcontracts.** The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.

(m) **Non-Federal Prevailing Wage Rates.** Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under State law to be prevailing, with respect to any employee in any trade or position employed under the contract, is inapplicable to the contract and shall not be enforced against the Contractor or any subcontractor, with respect to employees engaged under the contract whenever such non-Federal prevailing wage rate exceeds:

- (i) the applicable wage rate determined by the Secretary of Labor pursuant to the Davis-Bacon Act (40 U.S.C. 3141 et seq.) to be prevailing in the locality with respect to such trade;
- (ii) an applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor (DOL) or a DOL-recognized State Apprenticeship Agency; or
- (iii) an applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

**ATTACHMENT B**  
**Davis Bacon Wage Decision**



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In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

**ATTACHMENT C**  
**Specifications**

# ASBESTOS ABATEMENT

Cassiano Homes – 1507 San Carlos  
San Antonio, Texas

August 11, 2011

**Prepared For:**

San Antonio Housing Authority  
818 S. Flores  
San Antonio, Texas

**Prepared by:**

Terracon Consultants, Inc.  
Consulting Engineers & Scientists  
San Antonio, Texas 78216  
(210) 641-2112  
TDSHS Consultant Agency License No. 100157



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Will C. DeVeau  
Individual Asbestos Consultant  
TDSHS License No. 105734  
Expires 03/10/2013

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### ADDENDA

Abatement Drawing  
Asbestos Inspection Report Information



Will C. DeVeau / TDSHS IAC # 105734  
Expiration Date: 03/10/2013

## Asbestos Abatement

Cassiano Homes – 1507 San Carlos ■ San Antonio, Texas

August 11, 2011 ■ Terracon Project No. 90117248



# SCOPE OF WORK - ASBESTOS ABATEMENT

Project: Cassiano Homes – 1507 San Carlos  
San Antonio, Texas  
Terracon Project No. 90117248

Asbestos abatement will be accomplished in one phase. Asbestos abatement is to be conducted in interior spaces to accommodate renovation activities.

## I. Material, Quantity and Location

The work will consist of the removal of the following materials in the approximate quantities listed at the site. All work will be conducted by properly licensed personnel in accordance with applicable Federal, State and Municipal regulations.


### Cassiano Homes – 1507 San Carlos:

- Resilient Floor Tile and Associated Mastic Materials (2 layers) – The (1<sup>st</sup> layer) 1' x 1' Off-white with brown streaks floor tile and associated yellow and black mastic materials over an additional layer of tile (2<sup>nd</sup> layer) was utilized as flooring throughout the 1<sup>st</sup> floor on concrete was found to contain 5% Chrysotile asbestos in the black mastic, and no asbestos detected in the floor tile. The asbestos-containing flooring materials identified were noted to be in fair condition and were assessed as being non-friable. It is estimated that there exists approximately 700 square feet of these materials in the above listed areas to be removed.
- Resilient Floor Tile and Associated Mastic Materials (on masonite & plywood – total 8 layers) – Two (2 layers) of 1' x 1' white floor tile with yellow mastic materials, on (1 layer) of masonite, on (3 layers) of plywood, on (2 layers) of 1' x 1' green floor tile and black mastic on original wood sub-floor was utilized as flooring throughout the 2<sup>nd</sup> floor except for the Restroom were found to contain 10% Chrysotile asbestos in the floor tile, and 5% Chrysotile asbestos detected in the black mastic. The asbestos-containing flooring materials identified were noted to be in fair condition and were assessed as being non-friable. It is estimated that there exists approximately 640 square feet of these materials in the above listed areas to be removed.

## II. Work Practices

### A. Respiratory Protection:

During the removal of the asbestos-containing flooring and black mastic materials, the workers will be required to wear as a **minimum**, Half-face respirators, equipped with filter cartridges designed for asbestos-containing dusts, mists and vapors, and color coded in accordance with ANSI Z228.2 (1980). Certification that the workers have been fit tested in accordance with current OSHA guidelines will be provided as part of Worker Documentation.

  
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In addition, the half-face respirator asbestos cartridges will be piggy backed with organic filters if the submitted MSDS for any mastic removal solvent indicates the need. **The abatement Contractor shall ensure use of appropriate respiratory protection for the work being performed and recognizes that these requirements are only minimum acceptable standards.**

## B. Protective Clothing

During removal of the asbestos-containing materials, single protective suits, as a minimum, will be worn by the workers and boots, gloves, eye protection and hard hats will be available to each worker as needed. Each suit will be properly disposed of at the conclusion of each work period. The **Contractor** will furnish protective suits for the **Consultant's** use during the project. The workers performing the abatement will decontaminate through a three-chambered wet decontamination system which will be constructed as an integral part of the containment

## C. Removal

The **Contractor** will perform the removal and disposal in accordance with current local, state and federal regulations.

### 1. Asbestos-Containing Flooring Materials with Black Mastic:

These materials are intended to be removed with wet removal techniques and remain intact with as little disturbance as possible. The materials will be removed under negative pressure within a contained area which has an integral three-chamber wet decontamination unit. **If there are areas where the only materials to be removed are flooring and the walls are moisture resistant and may be wet wiped, a modified containment may be utilized. The containment will consist of a single layer of 6-mil poly covering the lower five (5) feet of all wall areas within the contained area. The top and bottom edges of the poly wall will be securely attached to the wall with a continuous strip of duct tape.** Critical barriers consisting of two layers of 6-mil poly will be installed on all building openings. **Inverted prep will not be required, however negative pressure (minimum of -0.020 in/H<sup>2</sup>O) will be maintained in all work areas.**

The flooring materials will be addressed as follows: Spray the asbestos-containing flooring materials with amended water or removal encapsulant. During the removal of the materials, continual wetting of the material will occur. Mastic materials will be removed with selected mastic remover and/or by manual methods. A buffer may be used to remove the mastic. The clean surfaces will be encapsulated after passing a visual inspection conducted by a Terracon representative.



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All resulting waste will be disposed of in accordance with the guidelines discussed in Item D of the specification. If **woven poly or burlap bags (onion sacks)** are utilized for **bagging of waste materials**, the **woven bags will be double bagged in proper poly disposal bags** prior to loading into the waste receptacle.

**SPECIAL ADDED PROCEDURE FOR REMOVAL OF FLOORING FROM PLYWOOD SUBSTRATE:**

(If applicable) During flooring removal, the wood substrate (i.e., 2 layers of floor tile & mastic on 1 layer of masonite on 3 layers of plywood) can also be removed if necessary (component removal) in order to achieve a more complete removal process than scraping and solvent use can achieve alone. If component removal is necessary, the asbestos-contaminated masonite and plywood shall be handled and disposed of as ACM and the Abatement Contractor shall ensure that adequate differential pressure is maintained at all times during and after this process.

**Note: After the above 6 layers of flooring, mastic, masonite, and plywood are component removed, the remaining 2 layers of floor tile and mastic will be removed from the original wood subfloor using the removal procedure specified in C1.**

**D. Disposal**

1. Once the ACM is removed, it will be double bagged and labeled in accordance with Texas Department of State Health Services (TDSHS) and OSHA guidelines. Pre-printed Generator Labels shall be affixed to each bag or wrapped component prior to being placed in the lined waste disposal dumpster or trailer.
2. All waste will be labeled in accordance with 29 CFR 1910.1200 (f) of OSHA's Hazard Communication standard, and will contain the following information:

DANGER  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST

CANCER AND LUNG DISEASE HAZARD

3. The area between the bag-out area and the prepared waste receptacle shall be regulated with barrier tape during bag-out operations. The waste receptacle will have asbestos specific signage attached during loading and unloading activities. The waste dumpster or trailer shall remain secured during all other periods.



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## Asbestos Abatement

Cassiano Homes – 1507 San Carlos ■ San Antonio, Texas  
August 11, 2011 ■ Terracon Project No. 90117248



4. The waste will be disposed in an approved landfill. The waste will be transported to the landfill in a lined closed top receptacle. Verification of disposal at the landfill will be provided to the Owner by **Contractor** via the TDSHS Waste Manifest.

### E. Clearance

Aggressive PCM clearance sampling will be conducted in accordance with the NIOSH 7400 Method A, in any contained area in which abatement has occurred.

### III. Contractor Submittals

Submittals required for proper execution include but are not limited to the following:

#### Pre-Construction Submittals (submitted to **Consultant**)

- Regulatory Notification Information
- Plan of Action
- Fire Action Plan
- Emergency Phone List
- Project Schedule
- Copy of Written Respirator Program which conforms to 29 CFR 1910.134(b)
- OSHA Material Safety and Data Sheets (Product Handling)

#### Construction Submittals (submitted to **Consultant** before start of work on-site)

- Licenses: Contractor, Supervisor, Transporter(s)
- NESHAP Training Certificate
- Personal Air Monitoring Lab Results
- List of Workers
- Worker Registration Certificates
- Medical Examination Results
- Worker Training Certificates
- Respiratory Fit Test Certificate
- Certificates of Worker Acknowledgement

#### Project Closeout (submitted to **Consultant** no later than ten (10) working days following completion of the project)

- Contractor's Daily Log
- Waste Disposal Manifest Copies
- Certificate of Completion (if required)
- Releases, Occupancy Permits (if applicable)
- Personal Air Monitoring Lab Results (If applicable)

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RESUBMISSION:

Revise submittals as required and resubmit as specified for initial submittal. Indicate any changes which have been made other than those requested by **Consultant**.

CONTRACTOR RESPONSIBILITIES:

Illegible submittals will be rejected and returned for re-submittal.

Schedule submittals according to general flow of Work and so as to allow for adequate and timely review of submittals by **Consultant**.

Review submittals prior to submission and submit to **Consultant** in accordance with provisions herein.

Verify field measurements, construction criteria, catalog numbers and similar data.

Coordinate submittals with requirements of Work and Contract Documents.

**Contractor's** responsibility for errors or omissions is not relieved by **Consultant's** review.

**Contractor's** responsibility for deviations from requirements of Contract Documents is not relieved by **Consultant's** review, unless **Consultant** is notified of deviations in writing at time of submittal, and gives written review of specific deviations.

Do not begin work which requires submittals until reviewed submittals have been reviewed and approved by **Consultant**.

If required, reproduce and distribute copies after **Consultant's** review.

CONSULTANT'S RESPONSIBILITIES:

Review submittals within two working days or indicate in writing reasons for reviews which require additional time.

Review for conformance with design concept of project and information given in Contract Documents.

Indicate results of review and return submittals to **Contractor** for distribution.

**Consultant** is not responsible for verification of field measurements, construction criteria, catalog numbers and other similar data.



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## Asbestos Abatement

Cassiano Homes – 1507 San Carlos ■ San Antonio, Texas

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Review of separate items does not constitute review of an assembly in which items function.

### IV. Construction Notes

The **Owner** shall be responsible for submission of notification and payment of notification fees included in the 10 day NESHAP demolition/renovation form.

The **Contractor** will be responsible for providing water and electricity to the work areas and as needed by the Consultant. Water and electrical service are present at the site at this time, and will be available for Contractor use. All electrical connections and outlets shall be protected at all times by ground fault circuit interrupters.

The **Contractor** shall remain current and be in good standing all asbestos abatement licenses, insurance, and Agreed Orders. The **Owner** reserves the right to verify **Contractor's** standing.

The **Contractor** shall maintain all records required by TDSHS Texas Asbestos Health Protection Rules Section 295.62 Operations: Recordkeeping

**Contractor** parking and disposal dumpster areas will be as designated by the **Owner**. The **Contractor** will keep work and parking areas clean.

Prior to any asbestos abatement activities the **Contractor** will provide a licensed electrician to provide power lock-out and tag-out of all circuits to be affected by the asbestos abatement activities. Lock-out/Tag-out must meet OSHA 1910.147 requirements. All electrical circuits in the regulated and/or contained area shall have ground-fault interrupter (GFCI) units installed outside the contained work area.

Exhaust negative pressure ventilation system to outside of building. Plywood inserts or a similar hard barrier shall be required for building security on any building openings used for exhaust purposes.

The **Contractor** shall arrange the use of on-site toilet facilities with the Owner or provide temporary self-contained toilet units for use by **Contractor's** personnel throughout the duration of abatement activities.

The **Contractor** shall install one functioning fire extinguisher in the work area for each 1,000 square feet of work area or part thereof. Additional fire extinguishers shall be installed in the Equipment Room and Clean Room of the decontamination unit.

The **Contractor** shall conduct a safety meeting for **Contractor's** employees with emphasis on operation of fire extinguishers and emergency exits in case of fire.

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**Contractor** shall have posted emergency phone numbers for the fire department and police.

**Contractor** shall store a minimum of volatile substances on the job site and in fire resistant containers only.

## V. Products

Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the **ACM** and retardation of fiber release during disturbance of the material. As an option, the **Contractor** may utilize water to which a mild detergent has been added in lieu of a commercially available surfactant product.

Disposal Bags: Provide as a minimum, individual, 6 mil thick, leak-tight, manufactured polyethylene bags.

Disposal Bag Labels: Provide labels with **Owner's** name, **Contractor's** name, Project site address and the following warnings and labels, in accordance with regulatory requirements. Labels shall be lettered with indelible ink.

First Label:

CAUTION  
CONTAINS ASBESTOS FIBERS  
AVOID OPENING OR BREAKING CONTAINER  
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

Second Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

DANGER  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST  
CANCER AND LUNG DISEASE HAZARD  
BREATHING AIRBORNE ASBESTOS, TREMOLITE, ANTHOPHYLLITE, OR  
ACTINOLITE FIBERS IS HAZARDOUS TO YOUR HEALTH



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Third Label: Provide in accordance with U.S. Department of Transportation Regulation on hazardous waste marking. 49 CFR parts 171 and 172. Hazardous Substances: Final Rule:

RQ HAZARDOUS  
SUBSTANCE,  
CLASS 9,  
NA 2212, PG III  
(ASBESTOS)

Polyethylene Wrap: Provide minimum 6 mil polyethylene sheeting as a wrapping for large sections of rigid waste material and for construction of floors and critical barriers in the containment areas. Provide minimum 4 mil polyethylene sheeting for construction of walls of the containment.

Removal Encapsulant: Provide a penetrating type encapsulant designed specifically for removal of **ACM**. Utilize an encapsulant that will meet or exceed the results produced by use of Amended Water, as described above.

**VI. Air Monitoring Services**

The **Consultant** shall verify that the Work performed is in compliance with applicable regulations and that the building areas beyond the Work Area and the outside environment remain free of contamination. This section also sets forth airborne fiber levels both inside and outside the Work Area as action levels, and describes the action required by the **Contractor** if an action level is met or exceeded.

AIR MONITORING:

The **Consultant** will be conducting air monitoring throughout the course of the project.

Base Line Fiber Counts: The **Consultant** will monitor airborne fiber counts prior to start of Work. The purpose of this air monitoring will be to establish existing airborne fiber counts prior to beginning abatement operations.

Work Area Isolation: The **Consultant** will monitor airborne fiber counts outside the Work Area. The purpose of this air monitoring will be to detect faults in the Work Area isolation including, but not limited to, contamination of the building outside of the Work Area with airborne asbestos fibers, failure of filtration or rupture in the ventilation system, or contamination of the exterior of the building with airborne asbestos fibers.

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Should any of the above occur, the **Contractor** shall immediately cease asbestos abatement activities until the fault is corrected. Work shall not recommence until authorized by the **Consultant**.

Work Area Airborne Fiber Count: The **Consultant** will monitor airborne fiber counts in the Work Area. The purpose of this air monitoring will be to detect airborne fiber counts which may significantly challenge the integrity of Work Area isolation procedures that protect the balance of the building or outside of the building from contamination by airborne fibers.

Final Clearance: The **Consultant** will conduct Final Clearance air sampling in accordance with the Final Clearance Section of this Specification. Aggressive PCM clearance sampling will be conducted in accordance with the NIOSH 7400 Method A, in any contained area in which abatement has occurred. Three (3) clearance samples will be run for each contained work area at a minimum volume of 1,250 liters per sample.

### AIRBORNE FIBER COUNTS:

Inside Work Area: Maintain an average airborne count in the Work Area of less than 0.2 fibers per cubic centimeter. If the fiber counts rise above this figure for any sample taken, revise work procedures to lower fiber counts. If the Time Weighted Average (TWA) fiber count for any Work shift or eight (8) hour period exceeds 0.2 fibers per cubic centimeter, stop Work and leave ventilation system in operation. Do not recommence Work until authorized by the **Consultant**.

Outside Work Area: Maintain an average airborne count outside the Work Area of less than or equal to Base Line.

If any air sample taken outside the Work Area exceeds the Base Line, immediately and automatically stop Work until the source of the high fiber readings can be determined by the **Consultant**. If no outside non-asbestos source can be located by the **Consultant** and if this air sample was taken inside the building and outside of Critical Barriers around the Work Area, immediately erect new Critical Barriers to isolate the affected area from the balance of the building or as instructed by the **Consultant**.

Erect Critical Barriers at the next existing structural isolation of the involved space (e.g. wall, ceiling, floor).

Decontaminate the affected area in accordance industry standard methods.

Respiratory protection as set forth in the Work Practices Section shall be worn in affected area until area is cleared for reoccupancy.

A handwritten signature in blue ink, appearing to read "Will C. DeVeau".

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Leave Critical Barriers in place until completion of Work and insure that the operation of the negative pressure ventilation system in the Work Area results in a flow of air from the balance of the building into the affected area.

If the exit from the clean room of the personnel decontamination unit enters the affected area, establish a new decontamination facility.

After visual inspection in the extended work area, remove Critical Barriers separating the work area from the affected area. Final Clearance air samples will be taken within the entire area.

Fiber Type Disputes: The following procedure will be used to resolve any disputes regarding fiber types when the Project has been stopped due to excessive airborne fiber counts:

Air samples will be secured in the same area by the **Consultant** for analysis by Transmission Electron Microscopy at the option of the **Consultant** and classified as retests and back charged to the **Contractor** in accordance with the procedures in this specification.

### ANALYTICAL METHODS:

The following methods will be utilized at the discretion of the **Consultant** in collecting and analyzing air samples:

Phase Contrast Microscopy (NIOSH 7400 Method, Issue 2, Revision 3 or OSHA Reference Method)

Transmission Electron Microscopy (40 CFR Part 763, Subpart E, Appendix A)

### SAMPLE PROTOCOLS:

General: The number and volume of air samples taken by the **Consultant** will generally be in accordance with the following schedule. Sample quantities, locations, volumes and methodologies may vary depending upon the analytical method, project layout, procedures used and at the discretion of the **Consultant**.

### SCHEDULE OF AIR SAMPLES:

Base Line Sample Schedule: The **Consultant** will secure the following air samples to establish a Base Line before start of Work. The number of samples may vary according to site plan and on authorization of **Consultant**.

A handwritten signature in blue ink that reads "Will C. DeVeau".

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Location Sampled	Minimum Number of Samples	Minimum Volume	Planned Analytical Method
Each Work Area	3	1250 Liters	PCM
Outside Each Work Area	1	1250 Liters	PCM
Outside Building	1	1250 Liters	PCM

Base Line Fiber Level: is an action level expressed in fibers per cubic centimeter which is the larger of either the average of the samples collected outside each work area or 0.01 fibers per cubic centimeter of air. The Base Line samples may be collected but archived (not read) at the discretion of the **CONSULTANT**.

Daily Sample Schedule (per 8-hour work period): The **Consultant** will generally take the following samples on a daily (8-hour work period) basis. The number of samples may vary according to site plan and on authorization of **Consultant**.

Location Sampled	Minimum Number of Samples	Minimum Volume	Planned Analytical Method
Each Work Area	2	500	PCM
Outside Each Work Area/Inside Building	2	500	PCM
Decon Clean Room	2	500	PCM
Output of Negative Pressure Ventilation System	2	500	PCM

If airborne fiber counts exceed baseline limits, additional samples will be taken (and classified as retests) as necessary to monitor fiber levels and confirm sources.

Final Clearance Schedule (per containment): The **Consultant** will collect the following samples after completing a visual inspection of the work area. The number of samples may vary according to site plan and on authorization of **Consultant**.

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Location Sampled	Minimum Number of Samples	Minimum Volume	Planned Analytical Method
Each Work Area	3	1,250 Liters	PCM

Release Criteria: Gross decontamination is complete when every Work Area sample is equal to or less than 0.01 fibers/cc or the Base Line outside the Work Area, whichever is greater. If any sample is above the limit indicated, then the gross decontamination is incomplete and recleaning by decontamination procedures and/or ventilation system cycling is required and primary containment barriers cannot be removed.

INSPECTIONS:

The **Consultant**, in addition to providing air monitoring services, will provide full-time, on-site inspection of Work activities. Work shall not proceed without prior notice to the **Consultant** and presence of the **Consultant** on the Work site (requires 48 hours advance notice of Work).

The **Consultant** will conduct the following key Project inspections and no work by the **Contractor** will proceed beyond these points until all discrepancies noted during the inspection have been corrected.

The **Consultant's** inspections do not relieve the **Contractor** of Contract obligations and are not designed to locate all project discrepancies. The **Contractor** is responsible for project quality.

First Key Inspection:

Inspection of Work Area and Containments Prior to Start of Removal: Removal operations shall not proceed until the **Consultant** has completed inspection of the Work Area preparations and until all discrepancies noted have been corrected.

Second Key Inspection:

Inspection During Removal: Removal Work shall not be conducted unless the **Consultant** is on the Project site. Daily inspection of the Work Area and Work practices will be conducted; upon discovery and report of a discrepancy the **Contractor** shall immediately stop Work and correct the discrepancy.

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Third Key Inspection:

Inspection of Work Area or Containment After Completion of Removal Work, but Prior to Encapsulation and Containment Disassembly: A visual inspection of the Work site and/or containment areas and removal surfaces will be conducted at this point by the **Consultant** and encapsulation and/or containment disassembly shall not proceed until discrepancies noted have been corrected.

Fourth Key Inspection:

Final Clearance: After encapsulation and final clean-up of the Work Area, but prior to removal of Critical Barriers, the **Consultant** will conduct a visual inspection followed by final air tests. Final air sampling will be conducted in accordance with the Final Clearance Sections of this Specification.

Final Key Inspection:

Project Closeout Inspection: A final inspection will be conducted by the **Consultant** after the **Contractor** has removed Critical Barriers, equipment, and supplies. A Project "Punch List" will be provided of any items requiring correction or completion. Punch List items shall be completed prior to issuance of final completion notice by the **Contractor**.

Discrepancies or needed corrective measures observed by the **Consultant** will be reported to the **Contractor's** Superintendent on-site and shall be immediately corrected.

The above inspections are not necessarily single events. Failed inspections will be re-conducted and time classified as retests and charged back to the **Contractor** in accordance with the project documents.

Inspections will require 24 hours advance notice to the **Consultant**.

### PERSONAL MONITORING:

The **Contractor** may perform air monitoring as required to meet OSHA requirements for maintenance of Time Weighted Average (TWA) and excursion limit fiber counts for types of respiratory protection provided. The **Consultant** and/or **Owner** will not be providing air monitoring services to meet these OSHA requirements. A listing of all personal monitoring results obtained during the project will be submitted to the **Consultant** with the **Contractor** closeout submittals.

A handwritten signature in blue ink, appearing to read "Will C. DeVeau".

Will C. DeVeau / TDSHS IAC# 105734  
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LABORATORY TESTING:

The **Consultant** will perform field analysis of the air samples. A microscope and field laboratory will be set up at the jobsite, at the option of the **Consultant**, so that verbal reports on air samples can be obtained promptly after collection.

Reports to the **Owner** by the **Consultant** will include air monitoring data and pertinent information on work being conducted such as: work hours, number of workers, procedures used, contractor discrepancies and corrective measures, containment methods and construction, and amount of **ACM** removed.

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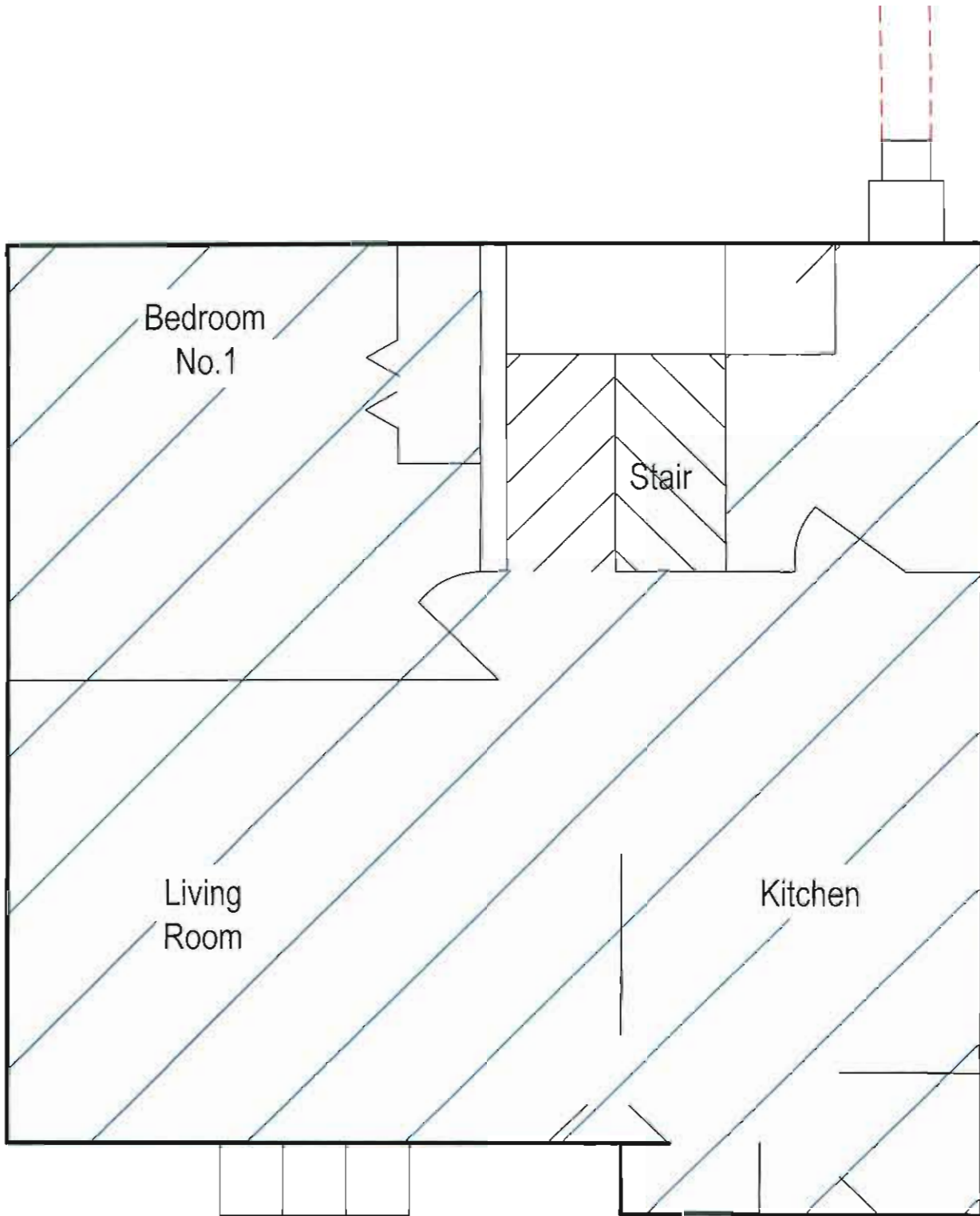
Will C. DeVeau / TDSHS IAC # 105734  
Expiration Date: 03/10/2013

**Asbestos Abatement**  
Cassiano Homes – 1507 San Carlos ■ San Antonio, Texas  
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**Abatement Drawing**

A handwritten signature in blue ink, reading "Will C. DeVeau", is positioned above a horizontal line.



1st Floor Plan

**LEGEND:**

-  -STRIP, REMOVE, AND DISPOSE OF ASBESTOS - CONTAINING 1x1' (2 LAYERS) RESILIENT FLOOR TILE WITH BLACK MASTIC.
-  -POTENTIAL LOCATION TO ESTABLISH 3 - STAGE DECONTAMINATION CHAMBER
-  -POTENTIAL LOCATION TO VENT HFU TO BUILDING EXTERIOR

*Will C. Deveau*

WILL C. DEVEAU  
 INDIVIDUAL ASBESTOS CONSULTANT  
 TDSHS LICENSE NO. 105734  
 EXPIRES 03/10/2013

Project Mngr.	WCD	Project No.	90117248
Drawn By	LS(90)	Scale	N.T.S.
Checked By:	WCD	File No.	90117248
Approved By:	WCD	Date:	08-08-11

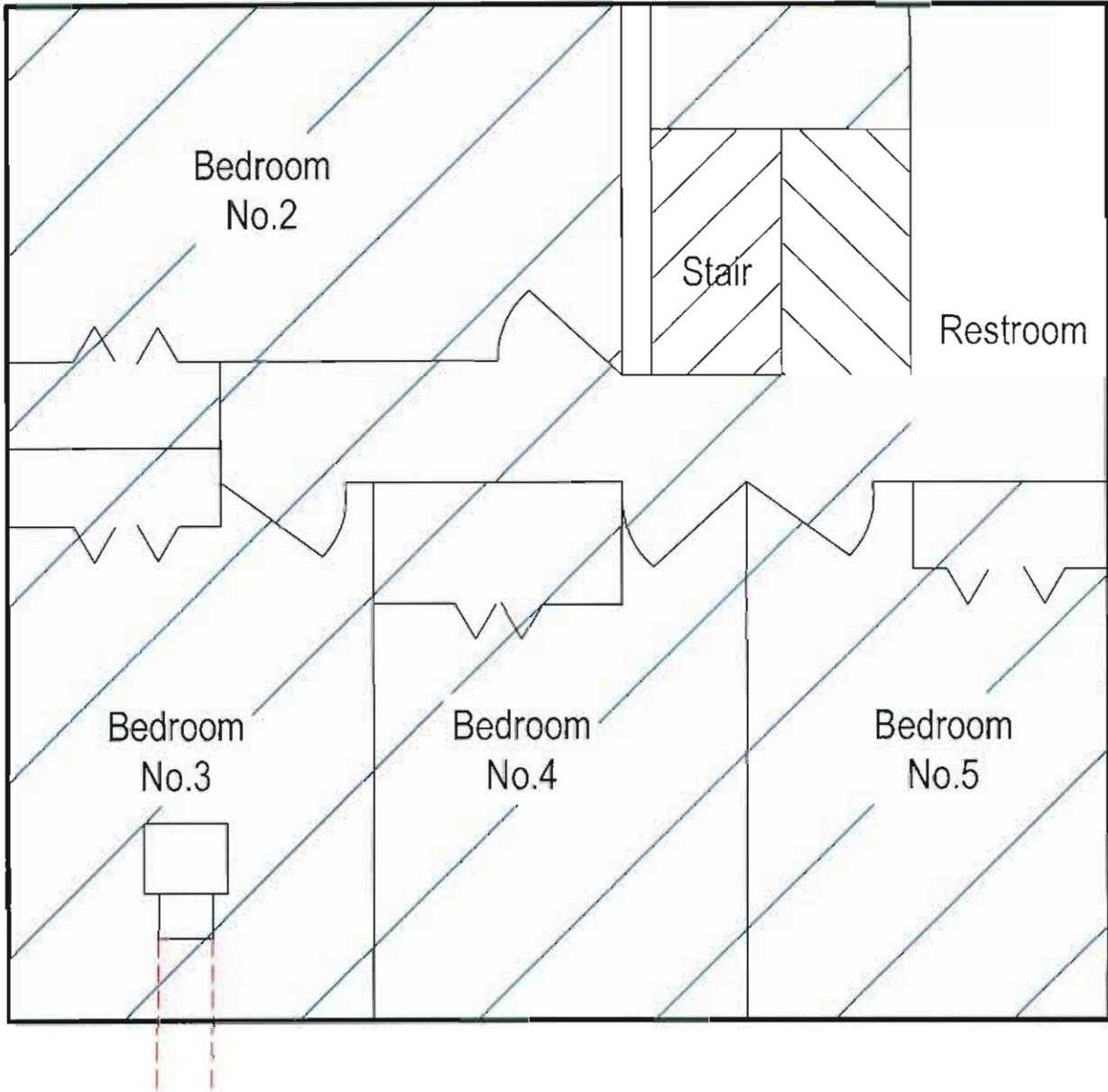
**Terracon**  
 Consulting Engineers and Scientists

0911 BLANCO ROAD SAN ANTONIO, TX 78216  
 PH (210) 641-2112 FAX (210) 641-2124




ASBESTO ABATEMENT DRAWING

**Cassiano Homes**  
 1507 San Carlos  
 San Antonio, Texas

Figure No.	1
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2nd Floor Plan

- LEGEND:**
-  STRIP, REMOVE AND DISPOSE OF ASBESTOS - CONTAINING 1x1 RESILIENT FLOOR TILE WITH BLACK MASTIC, AND MULTIPLE LAYERS OF FLOORING (NOTE: ORIGINAL WOOD SUBFLOOR WILL REMAIN INTACT)
  -  POTENTIAL LOCATION TO ESTABLISH 3-STAGE DECONTAMINATION CHAMBER
  -  POTENTIAL LOCATION TO VENT HFU TO BUILDING EXTERIOR

*Will C. Deveau*  
 WILL C. DEVEAU  
 INDIVIDUAL ASBESTOS CONSULTANT  
 TDSHS LICENSE NO. 105734  
 EXPIRES 03/10/2013

Project Mgr	WCD	Project No.	90117248
Drawn By	LS(90)	Scale:	N.T.S.
Checked By	WCD	File No.	90117248
Approved By	WCD	Date:	08-08-11

**Terracon**  
 Consulting Engineers and Scientists

6911 BLANCO ROAD SAN ANTONIO, TX 78216  
 PH (210) 641-2112 FAX (210) 641-2124

ASBESTO ABATEMENT DRAWING

Cassiano Homes  
 1507 San Carlos  
 San Antonio, Texas

Figure No.  
 2

Asbestos Abatement  
Cassiano Homes – 1507 San Carlos ■ San Antonio, Texas  
August 11, 2011 ■ Terracon Project No. 90117248



### Asbestos Inspection Report Information

A handwritten signature in blue ink, reading "Will C. DeVeau", is positioned above a horizontal line.

Will C. DeVeau / TDSHS IAC # 105734  
Expiration Date: 03/10/2013

# Limited Asbestos Survey

Cassiano Homes – 1507 San Carlos

San Antonio, Texas

August 4, 2011

Project No. 90117248

**Prepared for:**

San Antonio Housing Authority

818 South Flores

San Antonio, Texas

**Prepared by:**

Terracon Consultants, Inc.

San Antonio, Texas

Offices Nationwide  
Employee-Owned

Established in 1965  
[terracon.com](http://terracon.com)

**Terracon**

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

August 4, 2011



San Antonio Housing Authority  
818 South Flores  
San Antonio, Texas 78204

Attention: Mr. Ian Montemayor  
Telephone: (210) 477-6582  
Email: ian\_montemayor@saha.org

Re: Revised Limited Asbestos Survey  
Cassiano Homes – 1507 San Carlos  
San Antonio, Texas 78207  
Terracon Project No. 90117248

Dear Mr. Montemayor:

On July 26, 2011, Terracon Consultants, Inc. (Terracon) conducted a limited asbestos-containing materials survey of the flooring materials on the 1<sup>st</sup> and 2<sup>nd</sup> floor located at Cassiano Homes – 1507 San Carlos in San Antonio, Texas. The survey was conducted and bulk material samples were obtained by Mr. Will C. DeVeau, TDSHS licensed and Environmental Protection Agency (EPA) accredited Individual Asbestos Consultant, employed by Terracon. The survey was intended to identify and assess suspect materials, which might be disturbed during renovation/demolition operations associated with the building on the site. **Six (6) samples of suspect building materials were obtained in this study.**

Suspect materials that are typically considered for sampling include surfacing materials, thermal insulation, and miscellaneous materials (i.e. floor tiles, ceiling tiles, mastics, etc.). The locations and types of suspect materials sampled were at the discretion of the licensed Asbestos Inspector. Materials not sampled include concrete materials, wooden and metal doors, ceramic tile, fibrous glass containing materials, fibrous glass insulation systems, electrical wiring insulation, and other hidden or inaccessible components (i.e., materials within walls, in crawl spaces, etc.).

## **ANALYSIS AND RESULTS**

All samples of suspect asbestos-containing building materials collected during the survey were analyzed by Omni Environmental, Inc., a National Voluntary Laboratory Accreditation Program (NVLAP) accredited and TDSHS licensed laboratory utilizing Polarized Light Microscopy (PLM) protocol. Reports of laboratory analysis of all samples collected are included herein.

## **Two of the homogeneous materials sampled and analyzed were found to contain asbestos.**

- Resilient Floor Tile and Associated Mastic Materials (2 layers) – The (1<sup>st</sup> layer) 1' x 1' Off-white with brown streaks floor tile and associated yellow and black mastic materials over an additional layer of tile (2<sup>nd</sup> layer) was utilized as flooring throughout the 1<sup>st</sup> floor on concrete was found to contain 5% Chrysotile asbestos in the black mastic, and no asbestos detected in the floor tile. The asbestos-containing flooring materials identified were noted to be in fair condition and were assessed as being non-friable. It is estimated that there exists approximately 700 square feet of these materials in the above listed areas to be removed.
- Resilient Floor Tile and Associated Mastic Materials (on masonite & plywood – total 8 layers) – Two (2 layers) of 1' x 1' white floor tile with yellow mastic materials, on (1 layer) of masonite, on (3 layers) of plywood, on (2 layers) of 1' x 1' green floor tile and black mastic on original wood sub-floor was utilized as flooring throughout the 2nd floor except for the Restroom were found to contain 10% Chrysotile asbestos in the floor tile, and 5% Chrysotile asbestos detected in the black mastic. The asbestos-containing flooring materials identified were noted to be in fair condition and were assessed as being non-friable. It is estimated that there exists approximately 640 square feet of these materials in the above listed areas to be removed.

## **RECOMMENDATIONS**

If the Client does not intend to renovate or demolish the buildings, the asbestos-containing materials, associated with the buildings, should be managed in place. This in-place management should include such operations as repairing any damaged materials which are not removed as part of any renovation operations, protecting the remaining asbestos-containing materials from further damage, and developing a plan to periodically monitor the condition of the asbestos-containing materials. Notification of the presence of the materials should also be made to employees and outside contractors so that they do not inadvertently disturb the remaining asbestos-containing materials.

If repair, renovation or demolition operations which could disturb the asbestos-containing materials are to be conducted, it is recommended that the affected materials be removed. It is recommended that any removal of asbestos-containing materials associated with the structures be conducted by trained and licensed asbestos abatement personnel working under the requirements of the TDSHS Texas Asbestos Health Protection Rules. According to TDSHS Texas Asbestos Health Protection Rules, a removal project involving the removal of more than 160 square feet of the asbestos-containing materials would need to be designed by a licensed Individual Asbestos Consultant. Air monitoring by a licensed third-party Air Monitor would be required during the actual removal work regardless of the size of the project. Terracon would be pleased to provide a proposal to provide these services.

We appreciate the opportunity to provide environmental consulting services to you and look forward to working with you on future projects.

Respectfully Submitted,  
**TERRACON CONSULTANTS, INC.**



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Robert N. Dalton  
TDSHS Individual Asbestos Consultant  
License No. 105089  
[rndalton@terracon.com](mailto:rndalton@terracon.com)



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Will C. DeVeau  
TDSHS Individual Asbestos Consultant  
License No. 105734  
[wcdeveau@terracon.com](mailto:wcdeveau@terracon.com)

## **1.0 PROJECT OBJECTIVE**

We understand this asbestos survey was requested due to the planned renovation/demolition operations of the building(s) / structure(s) on the site.

The Texas Department of State Health Services (TDSHS) regulates asbestos-related activities in the State of Texas. The TDSHS Texas Asbestos Health Protection Rules (TAHPR) require that a licensed Asbestos Inspector conduct an asbestos survey which conforms to generally accepted industry standards such as the protocol specified in 40 CFR Part 763.85, commonly referred to as the Asbestos Hazard Emergency Response Act (AHERA) and applies to schools. Other factors are taken into consideration when determining the best method to determine the location, extent and condition of Asbestos-Containing Materials (ACMs) in a non-school building.

EPA regulation 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), prohibits the release of asbestos fibers to the atmosphere during renovation or demolition activities. The asbestos NESHAP, which is enforced by the TDSHS, requires that prior to the commencement of demolition or renovation, that the facility or part of the facility affected be thoroughly inspected for the presence of both Friable (Regulated Asbestos-Containing Building Materials), and Non-Friable (Category I & II Asbestos-Containing Materials).

Terracon conducted a visual assessment of the building(s) / structure(s) to identify materials suspected of containing asbestos (suspect ACM) such as thermal system insulation, surfacing materials, and miscellaneous materials (e.g., floor tiles). Suspect materials were physically assessed for friability and evidence of damage or degradation. Samples of suspect ACM were collected for laboratory analysis. Bulk sample collection was conducted in accordance with the protocols outlined in the TDSHS TAHPR and/or USEPA 40 CFR 763.85, as applicable.

## **2.0 FIELD ACTIVITIES**

The survey was conducted by Texas Department of State Health Services (TDSHS) licensed and Environmental Protection Agency accredited asbestos inspector(s) employed by Terracon. A copy of the asbestos inspector's license(s) is/are attached. The survey was conducted in general accordance with the sample collection protocols established in the TAHPR and/or EPA regulation 40 CFR 763 of the (AHERA), and/or per Client directives, as applicable. A summary of survey activities is provided below.

### **2.1 Visual Assessment**

Our survey activities began with visual observation of the suspect building components to identify homogeneous areas of suspect ACM. A homogeneous area consists of building materials that appear similar throughout in terms of color, texture and date of application. The assessment was conducted throughout visually accessible areas of the structure. Building materials identified as concrete, glass, wood, masonry, metal or rubber were not considered suspect ACM.

## Limited Asbestos Survey

Cassiano Homes – 1507 San Carlos ■ San Antonio, Texas  
August 4, 2011 ■ Terracon Project No. 90117248

## 2.2 Physical Assessment

A physical assessment of each homogeneous area of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the EPA as a material when dry may be crumbled, pulverized, or reduced to powder by hand pressure, and includes previously non-friable material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure. Friability was assessed by physically touching suspect materials.

## 2.3 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with the sample collection protocols established in the TAHPR and/or EPA regulation 40 CFR 763 of the (AHERA), and/or per Client directives, as applicable. Random samples of suspect materials were collected in each homogeneous area. Sample team members collected bulk samples using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

## 2.4 Sample Analysis

Bulk samples were submitted under chain of custody to Omni Environmental, Inc., a National Voluntary Laboratory Accreditation Program (NVLAP) accredited and TDSHS licensed laboratory utilizing Polarized Light Microscopy (PLM) analysis protocol with dispersion staining techniques per EPA methodology (40 CFR 763, Subpart F). The percentage of asbestos, where applicable, was determined by microscopical visual estimation.

## 3.0 REGULATORY OVERVIEW

The asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as either friable, Category I non-friable or Category II non-friable ACM. Friable materials are those that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACM includes packings, gaskets, resilient floor coverings and asphalt roofing products containing more than 1% asbestos. Category II non-friable ACM are any materials other than Category I materials that contain more than 1% asbestos.

Friable ACM, Category I and Category II non-friable ACM which is in poor condition and has become friable or which will be subjected to drilling, sanding, grinding, cutting or abrading and which could be crushed or pulverized during anticipated renovation or demolition activities are considered regulated ACM (RACM).

### **Limited Asbestos Survey**

Cassiano Homes – 1507 San Carlos ■ San Antonio, Texas  
August 4, 2011 ■ Terracon Project No. 90117248

In the state of Texas, asbestos activities are regulated by the Texas Department of State Health Services (TDSHS) under the Texas Asbestos Health Protection Rules (TAHPR). The TAHPR require that any asbestos-related activity conducted in a public building be performed by personnel licensed by the TDSHS. Asbestos abatement must be performed by TDSHS licensed Asbestos Abatement Contractors in accordance with a Project Design prepared by a TDSHS licensed Asbestos Consultant. Third-party air monitoring must be conducted during the abatement activities. Management Plans developed for the in-place management of asbestos-containing materials must be developed by a TDSHS-licensed Management Planner.

RACM must be removed prior to renovation or demolition activities which will disturb the materials. The owner or operator must provide the TDSHS with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by a State of Texas licensed Asbestos Abatement Contractor. In addition, third party air monitoring must be performed prior to, during, and following the abatement.

The OSHA Asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). The OSHA standard classifies construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. States which administer their own federally-approved state OSHA programs may require additional precautions.

## **4.0 GENERAL COMMENTS**

This asbestos survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the structure. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by the client for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

**APPENDICES**

**BULK SAMPLE LOG AND RESULTS / DRAWING ..... 1**

**REPORT OF LABORATORY ANALYSIS / SAMPLE CHAIN-OF-CUSTODY ..... 2**

**TERRACON PERSONNEL AND LABORATORY LICENSES ..... 3**

**SECTION 1**

**BULK SAMPLE LOG AND RESULTS / DRAWING**

**BULK SAMPLE LOG AND RESULTS**

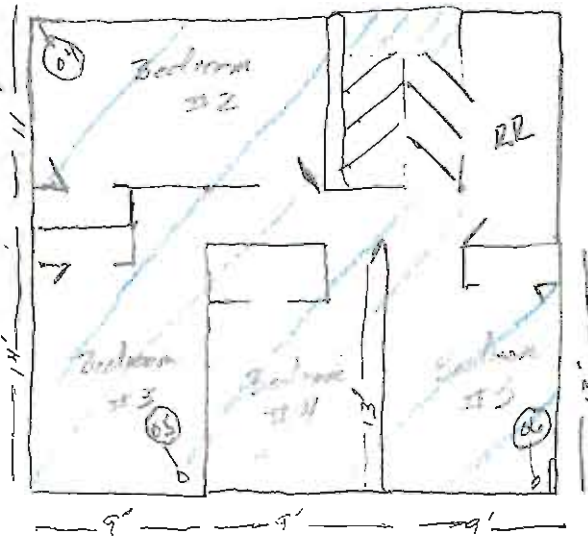
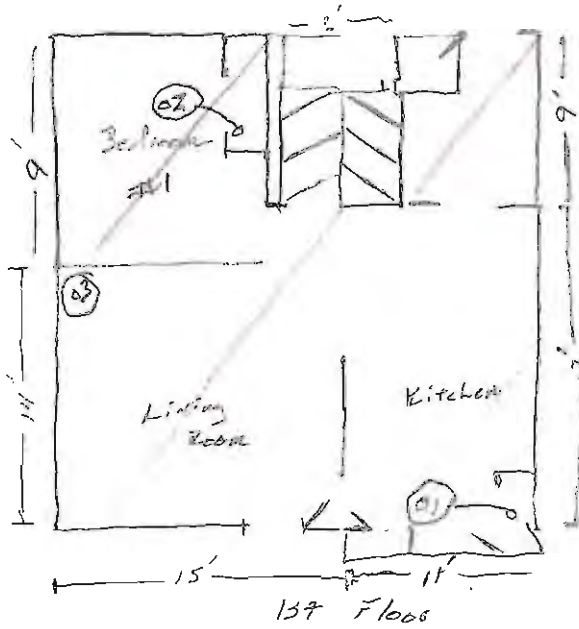
INSPECTORS: Will C. DeVeau		DATE: July 26, 2011	PROJECT NAME: Cassiano Homes – 1507 San Carlos, San Antonio, Texas 78207		PROJECT NUMBER: 90117248		
SAMPLE NO.	TYPE OF MATERIAL	HOMOGENEOUS AREA	LOCATION OF SAMPLE	NON-FRIABLE/ FRIABLE	CONDITION	QUANTITY	ASBESTOS CONTENT
S-01	Resilient Floor Tile (2 layers) – 1' x 1', Off-white with brown streaks with yellow and black mastic over an additional layer of tile (2 <sup>nd</sup> layer)	Utilized as flooring throughout the 1 <sup>st</sup> floor on concrete	Kitchen Closet – West	Non-Friable	Fair	700 Sq. ft.	5% Chrysotile detected in the Black Mastic NAD in the Floor Tile
S-02	Resilient Floor Tile (2 layers) – 1' x 1', Off-white with brown streaks with yellow and black mastic over an additional layer of tile (2 <sup>nd</sup> layer)	Utilized as flooring throughout the 1 <sup>st</sup> floor on concrete	Bedroom #1 Closet – West	Non-Friable	Fair	See S-01	5% Chrysotile detected in the Black Mastic NAD in the Floor Tile
S-03	Resilient Floor Tile (2 layers) – 1' x 1', Off-white with brown streaks with yellow and black mastic over an additional layer of tile (2 <sup>nd</sup> layer)	Utilized as flooring throughout the 1 <sup>st</sup> floor on concrete	Living Room – Northwest corner	Non-Friable	Fair	See S-01	5% Chrysotile detected in the Black Mastic NAD in the Floor Tile
S-04	Resilient Floor Tile (on masonite & plywood - 8 layers) – 1' x 1', (2 layers) White with yellow mastic, on (1 layer) of masonite, on (3 layers) of plywood, on (2 layers) of 1' x 1' green resilient floor tile and black mastic on original wood subfloor	Utilized as flooring throughout the 2 <sup>nd</sup> floor except for the Restroom	Bedroom #2 – Northwest corner	Non-Friable	Fair	640 Sq. ft.	10% Chrysotile detected in the Green Floor Tile 5% Chrysotile detected in the Black Mastic
S-05	Resilient Floor Tile (on masonite & plywood - 8 layers) – 1' x 1', (2 layers) White with yellow mastic, on (1 layer) of masonite, on (3 layers) of plywood, on (2 layers) of 1' x 1' green resilient floor tile and black mastic on original wood subfloor	Utilized as flooring throughout the 2 <sup>nd</sup> floor except for the Restroom	Bedroom #3 – Southeast corner	Non-Friable	Fair	See S-04	10% Chrysotile detected in the Green Floor Tile 5% Chrysotile detected in the Black Mastic

**BULK SAMPLE LOG AND RESULTS**

<b>INSPECTORS: Will C. DeVeau</b>		<b>DATE: July 26, 2011</b>	<b>PROJECT NAME: Cassiano Homes – 1507 San Carlos, San Antonio, Texas 78207</b>		<b>PROJECT NUMBER: 90117248</b>		
<b>SAMPLE NO.</b>	<b>TYPE OF MATERIAL</b>	<b>HOMOGENEOUS AREA</b>	<b>LOCATION OF SAMPLE</b>	<b>NON-FRIABLE/ FRIABLE</b>	<b>CONDITION</b>	<b>QUANTITY</b>	<b>ASBESTOS CONTENT</b>
S-06	Resilient Floor Tile (on masonite & plywood - 8 layers) – 1' x 1', (2 layers) White with yellow mastic, on (1 layer) of masonite, on (3 layers) of plywood, on (2 layers) of 1' x 1' green resilient floor tile and black mastic on original wood subfloor	Utilized as flooring throughout the 2 <sup>nd</sup> floor except for the Restroom	Bedroom #5 – Southeast	Non-Friable	Fair	See S-04	10% Chrysotile detected in the Green Floor Tile 5% Chrysotile detected in the Black Mastic

PROJECT: Cassiano Homes - 1507 Sea Crest Ln Page \_\_\_\_\_ of \_\_\_\_\_

JOB NO. 90117245 Date 7/26/11 Comp. By WJD CHECKED BY: \_\_\_\_\_



## **SECTION 2**

### **REPORT OF LABORATORY ANALYSIS / SAMPLE CHAIN-OF-CUSTODY**

# SAMPLE SUMMARY REPORT

Omni Environmental, Inc.

8900 Shoal Creek Blvd Suite 121

Austin, TX 78757

(512) 258-9114

NVLAP LABCODE 102061.0

TDSHS Lab License 30-0087

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**Client Name: Terracon Consultants, Inc. San Antonio**

**Contact Name: Will DeVeau**

**Client Project Number: 90117248**

**Lab Project #: 213472**

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Asbestos Type and %</u>	<u>Asbestos Content by Layer</u>			
S-01	571923	Chry <1%	5% Chrysotile detected in Tar	NAD detected in Floor Tile	NAD detected in Mastic	
S-02	571924	Chry <1%	5% Chrysotile detected in Tar	NAD detected in Floor Tile	NAD detected in Mastic	
S-03	571925	Chry <1%	5% Chrysotile detected in Tar	NAD detected in Floor Tile	NAD detected in Mastic	
S-04	571926	Chry <1%	10% Chrysotile detected in Green Floor Tile	5% Chrysotile detected in Tar	NAD detected in Tan Floor Tile	NAD detected in Mastic
S-05	571927	Chry <1%	10% Chrysotile detected in Green Floor Tile	5% Chrysotile detected in Tar	NAD detected in Tan Floor Tile	NAD detected in Mastic
S-06	571928	Chry <1%	10% Chrysotile detected in Green Floor Tile	5% Chrysotile detected in Tar	NAD detected in Tan Floor Tile	NAD detected in Mastic

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This report is only a summary. For complete information on each sample see the Bulk Sample Analysis Report.

Note that NAD means that No Asbestos was Detected in the sample or layer.

# BULK SAMPLE ANALYSIS REPORT

Omni Environmental, Inc.

8900 Shoal Creek Blvd Suite 121

Austin, TX 78757

(512) 258-9114

NVLAP LABCODE 102061.0

TDSHS Lab License 30-0087

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July 29, 2011

Will DeVeau

Terracon Consultants, Inc. San Antonio

6911 Blanco Road

San Antonio, TX 78216

Dear Mr DeVeau:

Please find enclosed the bulk sample analytical results for the following project:

<b>Client Project #:</b>	<b>90117248</b>	<b>Lab Project #:</b>	<b>213472</b>
<b>Date Received:</b>	<b>7/27/2011</b>	<b>Received By:</b>	<b>Steve Griffin</b>
<b>Delivery Agency:</b>	<b>Federal Express</b>	<b>Name/Tracking #:</b>	<b>795013682381</b>
<b>Date Logged:</b>	<b>7/29/2011</b>	<b>Logged in by:</b>	<b>Jennifer Griffin</b>
<b>Analysis Completed:</b>	<b>7/29/2011</b>	<b>Samples in Project:</b>	<b>6</b>

The following procedures were used in sample analysis unless otherwise noted.

ANALYTICAL METHOD: EPA Method for the Determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116) or EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA 600/M4-82-020), as applicable.

Percentages are visual estimates based on sample volume. Limit of Detection: <1%. Limit of Quantification: 1%.

Negative results of resinously bound materials such as roofing material or floor tile may be inconclusive. NAD means No Asbestos was Detected in the sample or layer. The term texturizer (where applicable) may include wall texturizing, tape and bed, and/or joint compound. This report relates only to the item tested. It may not be used to claim product endorsement by NVLAP or any agency of the federal government. This report may not be reproduced, except in full, without the expressed written consent of laboratory management. Subsamples of layers or other inhomogeneities were analyzed separately and their results combined in proportion to the quantity of each layer to obtain quantitative results for the sample as a whole. All samples are stored for 1 month from the original analysis date before being disposed of.

Please call us if you have any questions regarding this report

Thank you for your business.

Sincerely,

---

Steve Griffin, Lab Manager

# BULK SAMPLE ANALYSIS REPORT

Lab Project #: 213472      Lab Sample #: 571923      Color: White  
Client Project #: 90117248      Characterization: Homogeneous, Non-Fibrous  
Client Sample #: S-01      Date Analyzed: 7/29/2011  
Analyst: Steve Griffin  
Comments:

<u>ASBESTOS COMPONENTS</u>		<u>FIBROUS COMPONENTS</u>		<u>NON-FIBROUS COMPONENTS</u>	
Chrysotile	<1 %	Cellulose	<1 %	Filler/Binder	65 %
Amosite				Mastic	<1 %
Crocidolite				Tar	<1 %
Tremolite				Aggregate	35 %
Actinolite					
Anthophyllite					
<b>Asbestos Total:</b>	<b>&lt;1 %</b>	<b>Fibrous Total:</b>	<b>&lt;1 %</b>	<b>Non-Fibrous Total:</b>	<b>100 %</b>

## SAMPLE LAYER DETAILS

Layer 1: 5% Chrysotile detected in Tar.  
Layer 2: No Asbestos Detected in Floor Tile.  
Layer 3: No Asbestos Detected in Mastic.

Lab Project #: 213472      Lab Sample #: 571924      Color: White  
Client Project #: 90117248      Characterization: Homogeneous, Non-Fibrous  
Client Sample #: S-02      Date Analyzed: 7/29/2011  
Analyst: Steve Griffin  
Comments:

<u>ASBESTOS COMPONENTS</u>		<u>FIBROUS COMPONENTS</u>		<u>NON-FIBROUS COMPONENTS</u>	
Chrysotile	<1 %	Cellulose	<1 %	Filler/Binder	65 %
Amosite				Mastic	<1 %
Crocidolite				Tar	<1 %
Tremolite				Aggregate	35 %
Actinolite					
Anthophyllite					
<b>Asbestos Total:</b>	<b>&lt;1 %</b>	<b>Fibrous Total:</b>	<b>&lt;1 %</b>	<b>Non-Fibrous Total:</b>	<b>100 %</b>

## SAMPLE LAYER DETAILS

Layer 1: 5% Chrysotile detected in Tar.  
Layer 2: No Asbestos Detected in Floor Tile.  
Layer 3: No Asbestos Detected in Mastic.

Lab Project #: 213472      Lab Sample #: 571925      Color: White  
Client Project #: 90117248      Characterization: Homogeneous, Non-Fibrous  
Client Sample #: S-03      Date Analyzed: 7/29/2011  
Analyst: Steve Griffin  
Comments:

<u>ASBESTOS COMPONENTS</u>		<u>FIBROUS COMPONENTS</u>		<u>NON-FIBROUS COMPONENTS</u>	
Chrysotile	<1 %	Cellulose	<1 %	Filler/Binder	65 %
Amosite				Mastic	<1 %
Crocidolite				Tar	<1 %
Tremolite				Aggregate	35 %
Actinolite					
Anthophyllite					
<b>Asbestos Total:</b>	<b>&lt;1 %</b>	<b>Fibrous Total:</b>	<b>&lt;1 %</b>	<b>Non-Fibrous Total:</b>	<b>100 %</b>

## SAMPLE LAYER DETAILS

Layer 1: 5% Chrysotile detected in Tar.  
Layer 2: No Asbestos Detected in Floor Tile.  
Layer 3: No Asbestos Detected in Mastic.

# BULK SAMPLE ANALYSIS REPORT

Lab Project #: 213472      Lab Sample #: 571926      Color: Brown  
Client Project #: 90117248      Characterization: Homogeneous, Fibrous  
Client Sample #: S-04      Date Analyzed: 7/29/2011  
Analyst: Steve Griffin  
Comments:

<u>ASBESTOS COMPONENTS</u>		<u>FIBROUS COMPONENTS</u>		<u>NON-FIBROUS COMPONENTS</u>	
Chrysotile	<1 %	Cellulose	98 %	Filler/Binder	2 %
Amosite				Mastic	<1 %
Crocidolite				Tar	<1 %
Tremolite				Aggregate	<1 %
Actinolite					
Anthophyllite					
<b>Asbestos Total:</b>	<b>&lt;1 %</b>	<b>Fibrous Total:</b>	<b>98 %</b>	<b>Non-Fibrous Total:</b>	<b>2 %</b>

### SAMPLE LAYER DETAILS

Layer 1: 10% Chrysotile detected in Green Floor Tile.  
Layer 2: 5% Chrysotile detected in Tar.      Layer 4: No Asbestos Detected in Mastic.  
Layer 3: No Asbestos Detected in Tan Floor Tile.

Lab Project #: 213472      Lab Sample #: 571927      Color: Brown  
Client Project #: 90117248      Characterization: Homogeneous, Fibrous  
Client Sample #: S-05      Date Analyzed: 7/29/2011  
Analyst: Steve Griffin      QC'd By: Steve Griffin  
Comments:

<u>ASBESTOS COMPONENTS</u>		<u>FIBROUS COMPONENTS</u>		<u>NON-FIBROUS COMPONENTS</u>	
Chrysotile	<1 %	Cellulose	98 %	Filler/Binder	2 %
Amosite				Mastic	<1 %
Crocidolite				Tar	<1 %
Tremolite				Aggregate	<1 %
Actinolite					
Anthophyllite					
<b>Asbestos Total:</b>	<b>&lt;1 %</b>	<b>Fibrous Total:</b>	<b>98 %</b>	<b>Non-Fibrous Total:</b>	<b>2 %</b>

### SAMPLE LAYER DETAILS

Layer 1: 10% Chrysotile detected in Green Floor Tile.  
Layer 2: 5% Chrysotile detected in Tar.      Layer 4: No Asbestos Detected in Mastic.  
Layer 3: No Asbestos Detected in Tan Floor Tile.

Lab Project #: 213472      Lab Sample #: 571928      Color: Brown  
Client Project #: 90117248      Characterization: Homogeneous, Fibrous  
Client Sample #: S-06      Date Analyzed: 7/29/2011  
Analyst: Steve Griffin  
Comments:

<u>ASBESTOS COMPONENTS</u>		<u>FIBROUS COMPONENTS</u>		<u>NON-FIBROUS COMPONENTS</u>	
Chrysotile	<1 %	Cellulose	98 %	Filler/Binder	2 %
Amosite				Mastic	<1 %
Crocidolite				Tar	<1 %
Tremolite				Aggregate	<1 %
Actinolite					
Anthophyllite					
<b>Asbestos Total:</b>	<b>&lt;1 %</b>	<b>Fibrous Total:</b>	<b>98 %</b>	<b>Non-Fibrous Total:</b>	<b>2 %</b>

### SAMPLE LAYER DETAILS

Layer 1: 10% Chrysotile detected in Green Floor Tile.  
Layer 2: 5% Chrysotile detected in Tar.      Layer 4: No Asbestos Detected in Mastic.  
Layer 3: No Asbestos Detected in Tan Floor Tile.

# Terracon

213472

## BULK ASBESTOS CHAIN OF CUSTODY

LABORATORY INFORMATION	CLIENT INFORMATION
<b>Omni Environmental, Inc.</b> 8900 Shoal Creek Blvd Suite 121 Austin, Texas 78758  Phone: (512) 258-9114	<b>Terracon Consultants, Inc.</b> 6911 Blanco Road San Antonio, Texas 78216  Phone: (210) 641-2112 Facsimile: (210) 641-2124

PROJECT INFORMATION	
Contact Person	Will DeVeau
Email Address	wcdeveau@terracon.com / rndalton@terracon.com
Project Number	90117248
Project Name	Cassiano Homes – 1507 San Carlos
Total Number of Samples	06

SAMPLE IDENTIFICATION	REQUESTED ANALYSIS	TURNAROUND TIME
S__-01 to __S__-06	PLM	Standard

Relinquished By:	<i>Will DeVeau</i>	Received By:	
Date:	<i>7/26/11</i>	Date:	
Time:	<i>3:01</i>	Time:	
Relinquished By:	<i>Fedex</i>	Received By:	<i>[Signature]</i>
Date:	<i>7950 1368 2381</i>	Date:	<i>7/27/11</i>
Time:		Time:	<i>900</i>

### **SECTION 3**

#### **TERRACON PERSONNEL AND LABORATORY LICENSES**



# TEXAS DEPARTMENT OF STATE HEALTH SERVICES

## TERRACON CONSULTANTS INC

*is certified to perform as a*

### **Asbestos Consultant Agency**

*in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.*

A handwritten signature in cursive script that reads "David Lakey MD".

DAVID LAKEY, M.D.  
COMMISSIONER OF HEALTH

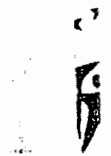
License Number: 100157

Control Number: 96370

Expiration Date: 11/30/2012

(Void After Expiration Date)

VOID IF ALTERED      NON-TRANSFERABLE



**Texas Department of  
State Health Services**

**Asbestos Individual Consultant**

**ROBERT N DALTON**

**License No. 105089**

**Control No. 95892**

**Expiration Date: 1/26/2012**





**Texas Department of  
State Health Services**

**Asbestos Individual Consultant**

**WILL C DEVEAU**

**License No. 105734**

**Control No. 96099**

**Expiration Date: 3/10/2013**



United States Department of Commerce  
National Institute of Standards and Technology



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## Certificate of Accreditation to ISO/IEC 17025:2005

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NVLAP LAB CODE: 102061-0

**Omni Environmental, Inc.**  
Austin, TX

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:*

### **BULK ASBESTOS FIBER ANALYSIS**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2011-07-01 through 2012-06-30

*Effective dates*



*Sally S. Bruce*  
For the National Institute of Standards and Technology



# TEXAS DEPARTMENT OF STATE HEALTH SERVICES

## OMNI ENVIRONMENTAL INC

*is certified to perform as a*

### **Asbestos Laboratory PLM**

*in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.*

A handwritten signature in cursive script, reading "David Lakey MD".

DAVID LAKEY, M.D.  
COMMISSIONER OF HEALTH

License Number: 300087

Control Number: 95724

Expiration Date: 6/15/2013

(Void After Expiration Date)

VOID IF ALTERED    NON-TRANSFERABLE