IUNE 2002 EDITED BY JON VARA

Whirlpool Bacteria Complaints Spark Lawsuits

Keeping tubs clean from day one may be key

by Ted Cushman

awyers in Waco, Texas, have launched class-action lawsuits against Jacuzzi, Kohler, and Lasco. Waco attorney John Malesovas says his office has uncovered email complaints to tub makers from consumers about "schmutz," "grunge," and "gunk" spewing from the jets when the unit is filled and turned on. Malesovas says his clients have not received the bathing experience they paid for and should get their money back.

When the tubs are emptied, the suit claims, undrained water in the hidden plumbing supports the growth of "biofilms," or organized communities of bacteria that survive cleaning efforts and quickly recontaminate the bath water when the tub is next used.

Company customer service responses to complaints were misleading, asserts Malesovas. He says Jacuzzi sent many homeowners the same canned e-mail, saying, "Sounds like you have an algae problem," and advising the homeowner to flush the pipes out with a commercial algaecide.

But Malesovas refers to a report by Dr. Rita Moyes, a microbiologist at Texas A&M University who tested water samples from 50 whirlpool baths. Instead of algae, Moyes found millions of *Legionella*, pseudomonas, staphylococcus, and human intestinal bacteria — all potentially infectious organisms.

Compared to tap water from the same houses, Moyes reported, whirlpool tub water samples had bacteria counts averaging 5,000 times higher, with some samples containing tens of millions of bacteria in a half ounce of water.

Jacuzzi responds. Reached by phone, Jacuzzi president Phil Weeks told JLC, "The overall number of complaints about debris in a bathtub relative to the total number that we have sold is miniscule

over the years. And the purging instructions that have been used for years have solved many, many of the problems."

Persistent debris problems are few, says Weeks, and a lot of those are the result of a problem upstream: "Any bathtub is at the end point of the water system. Mineral content, or other things upstream, can affect all the water appliances in a home."

Kohler officials directed *JLC* to the company's website at www.us.kohler.com, where a statement quotes microbiologist Dr. Charles Gerba as saying, "There is no documented evidence of the company's whirlpool bathtubs having posed a health hazard to consumers." Kohler advises consumers to purge their tub units at least twice a month with two teaspoons of low-foaming dishwasher detergent and four ounces of household bleach.

A competitor weighs in Whirlpool makers face a related attack from Dallascontinued on page 26

Whirlpool Bacteria Complaints continued from page 21

based Sanijet, Inc., a new competitor whose jetted-tub design doesn't rely on hidden plumbing.

Sanijet models have detachable and washable impellers that mount on the inside walls of the tub units and are driven by individual motors. On the company's website at www.sanijet.com, Sanijet highlights the Texas lawsuits and claims that only "pipeless" Sanijet tubs allow complete disinfection.

But Sanijet has met resistance in trying to move its tubs through traditional K&B showroom channels; showrooms have been reluctant to bring in a new product whose literature paints other units on the floor as virtual slime factories. Sanijet has pulled its models out of showrooms nationwide and is pitching the tubs direct to homeowners through its website instead.

of legionnaires' disease.

But unlike spa-type hot tubs, bathroom whirlpool tubs are drained after each use. Do the germs that can thrive in poorly maintained hot tubs pose a risk in bathroom whirlpools? The question is controversial.

Bad bugs in bunches. Scientists at Montana State University's Center for Biofilm Engineering (CBE) in Bozeman have found that once bacteria like Legionella or pseudomonas attach to a plumbing surface, they protect themselves with a matrix of secreted polysaccharide slime, forming tiny channels to bring in food and expel wastes and toxins. When tub jets are turned on, individual bacteria and bits of biofilm are shed into the water.

At a public health conference in Ontario, Canada, CBE director William Costerton, Ph.D., said whirlpool bathers might inhale water droplets contaminated

these people have had their work accepted by any scientific body that we know of."

"We've employed a number of experts who have studied the pseudomonas and *Legionella* infections that have occurred in spa units," says Weeks, "and their professional opinion is that they don't see how this could be a problem in a whirlpool bathtub unless there's some other contamination upstream."

Cleaning solutions. And it's true that not all whirlpool owners are complaining. On an Internet chat board where Sanijet V.P. Philip Klement joined a homeowner discussion about whirlpools, some consumers did express dissatisfaction; but others reported using their units regularly without noticing any slime problems.

The difference may depend on whether the tubs are kept clean from day one. "The need for elevated levels of the disinfectant is to kill an established biofilm," CBE engineer Darla Goeres told *ILC*. If you start with a clean tub, she says, "you may be able to maintain sanitation with much lower levels."

Goeres says that Malesovas paid for a CBE study to identify biofilms in whirlpool tubs. "But then no one has supported us to do the study in drain-and-fill whirlpool bathtubs to test different disinfection techniques. That's research that needs to get done, and I am optimistic that you could come up with an effective cleaning protocol, especially with a brand-new tub. But the exact amounts that would be required, we don't yet know."

"Jacuzzi has solved most of the problems that have occurred," maintains Phil Weeks. "There have been some debris cases up until recently that we have been unable to solve," he acknowledged, "but in the last 18 months or so, we found a product that was being used to clean milk pipes in the dairy industry, and that has solved all the cases that we've ever used it on. We now provide that at no charge on an as-needed basis when other things don't solve the problem. We want people to be happy with the product."

In test samples from 50 whirlpool baths, tub water had bacteria counts averaging 5,000 times higher than tap water from the same houses

Jacuzzi's Phil Weeks comments, "Sanijet is selling a concept that moves water, but they're not really selling a whirlpool bath. Their system doesn't induce air into the action, and really the hydrotherapy benefits of a whirlpool bath are derived by mixing water and air together. They've tried to sell cleanliness as their main issue. I think the market-place will determine whether that's valid."

Unhealthful bacteria. So what about the health claims? Under the wrong conditions, there is no doubt that the bacteria Moyes identified can cause illness and even death. Medical journal articles have blamed bacteria in hot tubs for infections ranging from a common rash called "pseudomonas folliculitis" to dangerous pneumonias, Pontiac fever, and a bacterial infection dubbed "hot tub lung," as well as several fatal outbreaks

with bits of bacterial biofilm that CBE researchers have observed "actually bouncing in a haze over the whirlpool."

And the organized films are tougher and more dangerous than free-swimming, or "planktonic," forms of the same bacteria, says Costerton. "[Biofilm fragments containing] as few as 100 cells of pseudomonas or *Legionella* can establish a pulmonary infection in animals," he testified in one Texas case. "Biofilms can only be killed by concentrations of biocides 1,000 to 1,500 times higher than those necessary to kill planktonic cells.... Two teaspoons of dishwasher detergent and four ounces of household bleach circulated for 10 to 15 minutes would have very little effect."

"If you look at Costerton and Moyes," counters Jacuzzi president Weeks, "they have formed an opinion, but neither one of



1960 Mountain Boulevard, Oakland, CA 94611 3070 Claremont Avenue, Berkeley, CA 94705

RECEIPT FOR PREVIOUS DOCUMENTS

Listing Agent: Helene Barkin

Property Address: 2943 Russell Street Berkeley

Purchaser and/or Purchasers' Agent acknowledge timely receipt of the following documents prior to writing and presenting an offer on the above referenced property.

PREVIOUS DISCLOSURES

 Real Estate Transfer Disclosure Statement dated5/5/03,3 pages, agents addendum to transfer disclosure statement dated 4/28/2003, 1 page, sellers insurance disclosure addendum dated 5/1/2003

PREVIOUS REPORTS

- Monte Stott and Associates Letter Dated May 5, 2003, 1 page, and Letter from J. David Ford dated May 5, 2003, 1 page and Structural Calculations for Foundation Repair and Voluntary Strengthening dated April 16, 2003, 8 pages (Total 10 pages including cover letters)
- 3. Reco Inspection Report dated May 19, 2003, Quotation by Shel Harris
- 4. Drawings for Foundation Repair and Voluntary Strengthening, 3 pages, Monte Stott & Associates
- 5. Power and Light Bid dated 4/17/2003 | Pg.
- 6. The Chelsea Company, 2 pages, dated 4/16/2003
- 7. Superior Plumbing and Heating dated 4/8/2003 1 Pg.
- 8. Live Oak Structural dated 4/9/2003 7 Pgs
- 9. Block Environmental Services Dated November 7, 2002, 7 pages
- 10. John McComas Bldg Inspection Report, 35 pages dated March 28, 2003 + Attachment A
- 11. Central Bay Roofing letter dated June 16, 1999 3 PJS
- 12. Aarvaks Heating Appliance Corp dated 10/21/1987 | Pg

The undersigned acknowledge timely receipt of the above referenced documents.

Seller	Date	Buyer	Date
Seller	Date	Buyer	Date
Listing Agent	Date	Buyer's Agent	Date



REAL ESTATE TRANSFER DIJCLOSURE STATEMENT

(CALIFORNIA CIVIL CODE 1102, ET SEQ)

(C.A.R. Form TDS, Revised 10/01)

Property Address: 29+3 Kussell Street	Berkeley_ Date: 5/5/03
B. Are you (Seller) aware of any significant defects/malfunctions in a space(s) below.	any of the following? Tres No. If yes, check appropriate
☐ Interior Walls ☐ Cellings ☐ Floors ☐ Exterior Walls ☐ Insulated ☐ Driveways ☐ Sidewalks ☐ Walls/Fences ☐ Electrical Systems (Describe: ☐ IVING (OOM DAY WINDOW) Frame ☐ R (CELLING YOOM DAY WINDOW) Frame ☐ Family room Overhead WINDOWS Family room Overhead WINDOWS Fains, Dead branch in redurood to	repainted—Stain from old leak of cossely): Not recurring as far as we know. leak briefly of during initial
*This garage door opener or child resistant pool barrier may not be in a devices as set forth in Chapter 12.5 (commencing with Section 1989 Article 2.5 (commencing with Section 115920) of Chapter 5 of Part 1 may not be anchored, braced, or strapped in accordance with Section 115920 anchored, braced, or strapped in accordance with Section 115920 anchored with the 1995 Edition 115920 anchored with 1159	90) of Part 3 of Division 13 of, or with the pool safety standards of 10 of Division 104 of, the Health and Safety Code. The water heater on 19211 of the Health and Safety Code. Window security bars may
 C. Are you (Seller) aware of any of the following: 1. Substances, materials, or products which may be an environment gas, lead-based paint, mold, fuel or chemical storage tanks, and compared to the compared tanks. 	ontaminated soil or water on the subject property Yes 🕱 No
3. Any encroachments, easements or similar matters that may affect 4. Room additions, structural modifications, or other alterations or ref. Room additions, structural modifications, or other alterations or ref. Fill (compacted or otherwise) on the property or any portion there 7. Any settling from any cause, or slippage, sliding, or other soil prof. Reports of the property or any of the structures from fire, and any zoning violations, nonconforming uses, violations of "setbact 1. Neighborhood noise problems or other nuisances 12. CC&R's or other deed restrictions or obligations 13. Homeowners' Association which has any authority over the subject 14. Any "common area" (facilities such as pools, tennis courts, walk interest with others) 15. Any notices of abatement or citations against the property 16. Any lawsuits by or against the seller threatening to or affecting the deficiency in this real property or "common areas" (facilities such	on the subject property
Seller Certifies that the information herein is true and correct to the Seller My An Survivors (ruot by W Seller Dwington Survivors Trueston (description)	best of the Seller's knowledge as of the date signed by the Seller. (hiving Ston Date 5/05/03 Linguistor Bate 5/05/03
The copyright laws of the United States (Title 17 U.S. Code) forbid the unauthorized reproduction of this form, or any portion thereof, by photocopy machine or any other means, including facsimile or computerized formats. Copyright © 1991-2001, CALIFORNIA ASSOCIATION OF REALTORS®, INC. ALL RIGHTS RESERVED. TDS-11 REVISED 10/01 (PAGE 2 OF 3)	Buyer and Selier acknowledge receipt of a copy of this page. Buyer's Initials (

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Agent's Addendum To Transfer Disclosure Statement

Property Address:	2943 Russell	St., Berkeley		
Agent is not a licensed corn Buyers are urged to obtain appropriate city, governme location of improvements footage is often quoted from easurements and may no property lines, square footongoing care and maintent years various types of funt School districts and partic students change. Buyers districts. Berkeley and Occomplex. Parties affected advisor, attorney, etc.	all professional insental, agency or othe and possible encroom the public tax reports accurate. Beritage, or the possibilitance and can create gus and tree disease cular schools are oftshould verify all infakland rent and evications.	spections they deem her departments or for hachments cannot be ecords but is not ver- keley Hills Realty me lity of encroachment he hazards during stores have caused trees ten overcrowded, are formation regarding ction control ordina	appropriate and to iles. Precise proper e determined without iffed by agents make akes no representate. Trees, particular my conditions or hof several species to do boundary lines ar schools directly with nees are in place and	ty lines and the precise of a survey. Square ing or obtaining actual ions as to the accuracy of ly large ones, can require high winds. In recent o die in California. In the appropriate school d are exceedingly
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Sellers' Insurance Disclosure Addendum

As per the California Residential Purchase Agreement (RPA-CA), paragraph 7, "Conditions Affecting Property": Item 7.B. "Seller shall, within the time specified in paragraph 14, disclose known material facts and defects affecting the property, including known insurance claims within the past five years."

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MONTE STOTT AND ASSOCIATES, INC. Consulting Engineers

5 May, 2003

Mr. Peter Damm Berkeley Hills Realty 1714 Solano Ave. Berkeley CA 94707 Fax (510) 525-7799

Project:

2943 RUSSELL STREET

BERKELEY CA

Dear Mr. Damm:

Please find enclosed several sets of drawings and calculations for the proposed voluntary strengthening and foundation repairs for the subject property. I have not addressed the undersized attic/roof framing. Although I agree with the general inspector that the existing attic and roof framing is not in conformance with current standards, it is my opinion that this framing has performed satisfactorily to date and does not warrant strengthening at this time.

Please don't hesitate to give me a call with any questions or concerns regarding this property.

		Very truly jours, Monte Stott, P.E.	A
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J. DAVID FORD

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General Contractor - Lic. #348772 2342 Shattuck Ave. #372 Berkeley, CA 94704

Phone: 510-251-9076/ Fax: 510-251-9551

May 5, 2003

Mr. Peter Damm Berkeley Hills Realty By Facsimile

RE: 2943 Russell, Berkeley, CA

Dear Mr. Damm:

Pursuant to your request, I accompanied Monte Stott, P.E., on two site visits at the property located at 2943 Russell Street, Berkeley, CA. Following the 2nd site visit, Mr. Stott prepared plans and specifications for areas of foundation repair and voluntary strengthening.

I have reviewed the engineer's plans dated April 2003, Job No. 03073. I propose to do the work specified in the plans for \$66,200.00. This price includes permit and permit processing with the City Building Department. If you have any questions, or desire further information, please feel free to contact me.

Sincerely,

J. David Ford

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RECO INSPECTION REPORT

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STRUCTURAL CALCULATIONS

FOR:

FOUNDATION REPAIR AND VOLUNTARY STRENGTHENING 2943 RUSSELL STREET BERKELY, CA

DATE: April 16, 2003

JOB NUMBER:

03073



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MONTE STOTT & ASSOCIATES, INC. 2169 FOLSOM STREET SAN FRANCISCO, CA 94110 (415) 436-0121 ARCHITECT:

N/A

SOILS ENGINEER:

N/A

GOVERNING CODE: UNIFORM BUILDING CODE - 1997 EDITION

DESIGN DATA:

CONCRETE:

FOOTINGS:

2500 PSI

SLAB:

2000 PSI

COLUMNS:

n.a. PSI

BEAMS:

n.a. PSI

OTHER:

2000 PSI

WOOD:

STRUCTURAL LUMBER: AS PER NATIONAL DESIGN

SPECIFICATIONS (LATEST EDITION).

STEEL:

STRUCTURAL STEEL SHAPES: A36

REINFORCEMENT: GRADE 40 FOR #4 BARS OR SMALLER

GRADE 60 FOR #5 BARS OR LARGER

BOLTS:

A307

	DE	SIGN LIVE LOAD	es .	
ROOF:	Roof Slope > 4:12 Roof Slope < 4:12	L.L. = 16 p L.L. = 20 p		
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Flooring Material

Floor Joists

Studs/ Plates

Gypsum Board

Insulation

Misc.

Beams

Ceiling

Misc.

Walls

TOTAL

TOTAL

EXTERIOR WALL:

Plywood Sheathing

Mechanical/ Electrical

Finish Material (wood siding)

MONTE STOTT AND .. SSOCIATES, INC. Consulting Engineers SAN FRANCISCO, CA 94110 2169 FOLSOM STREET A-102 SHEET DATE **PROJECT** BY **SUBJECT** DESIGN FBI Floor NOL= 6,5 (17) = 111 p/A. (UL = 65 (40) = 260 pK 1)SE EXB (K.D.) (GEE OLTPLIA DESIGN FBZ rout ZFL Y-FL WOL= E(18) + E(17) + B(17) = 716, + 20(12) = 696 11 Que = 8(20) + 8(40) + 8(40) = 800 p.K. POL = 444 # 1u = 1090 A USE PUB- 32×95 - (SEE DUTPUT) DESIGN (SEE OUTPUT) MONTE STOTT AND ASSOCIATE. these five lines, use the SETTINGS main menu selection, choose the Printing & Title Block tab, and ent your title block information.

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Description

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Member Type Repetitive Status		Sawn No	Manuf/Pine No	
Center Span Data	www.essylwani.com			
Span	ft	8.00	5.00	
Dead Load Live Load	#/ft #/ft	111.00 260.00	656.00 800.00	
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Deflections	103	Ratio OK	Deflection OK	·
Center DL Defl	in	-0.054	-0.022	
L/Defl Ratio Center LL Defl	in	1,773.2 -0.127	2,680.7 -0.032	
L/Defl Ratio		757.0	1,891.6	
Center Total Defl Location L/Defl Ratio	ìn ft	-0.181 4.000 530.5	-0.054 2.480 1,109.0	

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RETAINING WALL DESIGN

> DESCRIPTION : RETAINING WALL DETAIL A/S1 - WALL DESIGNED AS UNDCAILLED > DESIGN DATA _____ Soil Bearing Press = 1,000 psf FOOTING:
Active Fluid Press = 70 pcf Ftg/Soil Friction = 0.35
Passive Pressure = 300 pcf f'c - Concrete = 2,500 psi
Soil Density = 115 pcf Fy - Reinforcement = 40,000 psi > WALL LOADING CONDITIONS _____ Slope of Backfill =
(horiz:vert,0=Level) Design Fluid Pressure = 70.0 pcf 0:1 (Corrected for Slope) Surcharge over Toe = 0 psf Surcharge over Heel = 0 psf Shall Surcharge be used in Resisting Moment? Y=1, N=0 --> 0 <--Soil Ht over Toe 0 in Axial Load on Stem 0 plf Load @ Wall Above Soil= 0 psf Wall Ht above Soil = 0 ft ADJACENT FOOTING LOAD:
Footing Load = 0 plf Width of Footing = 0 ft 0 ft Ftg. Dist. from Wall = Depth of Bearing Below Spread Footing ? Y=1 , N=0 : --> Soil @ Rear F.O.W. 0 ft Bottom Above T.O.F. = 0.00 ft Top Above T.O.F. = 0.00 ft UNIFORM LOAD (Added) = 0 plf WALL & FOOTING GEOMETRY > RETAINED HEIGHT = 3 ft > Footing Thickness == 12 in (above T.O.F.) > Key Depth = = 2 ft > Key Width = = 0.67 ft > Toe / Key Dist. = = 0 ft 12 in 8 in 0 ft > Toe Width Stem Width > Heel Width 0 ft FOOTING WIDTH = 2.67 ft - STABILITY SUMMARY -----= 821 psf : 1,000 = Allow SOIL PRESSURE @ TOE SOIL PRESSURE @ HEEL = 0 psf FACTOR OF SAFETY: Overturning = 1.65 > 1.5, --> FACTOR OF SAFETY: Sliding = 1.57 > 1.5, --> OK OK ONE-WAY SHEAR AT TOE SIDE OF STEM = < = < ERR ERR ONE-WAY SHEAR AT HEEL SIDE OF STEM

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	PROJECT:		
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STABILITY CHECK			•
> NOTE: Should 1/3 of Active Pressure h Pressure at rear face of stem?	pe used as Vert Y=1 , N = 0	ical	 0
OVERTURNING MOMENT = 747 ft-# RESISTING MOMENT = 1,233 ft-#		•	
FACTOR OF SAFETY : Overturning>	1.65		
SLIDING CHECK			
Max. Lateral Force = 560 # > Ht. Max. Resis. Force = 880 # Pas F.S.: Sliding = 1.57 Fri	of Soil to Ne sive Pressure ction Pressure	glect = = =	0.00 in 600 # 280 #
SOIL PRESSURE	•		
Eccentricity from CL = 0.68 ft	Kern Dist	ance =	0.44 ft
	ACTORED F.		
> SOIL PRESSURE @ TOE =	821 psf	1,395 p	
> SOIL PRESSURE @ HEEL =	0 psf	0 ps	sf
TOE DESIGN			
Mu''= Upward = 1836 ft-# Mu Mu' = Downward = 406 ft-#	u: DESIGN MOM	ENT =	1430 ft-#
> % Steel Minimum = 0.0012 As: Required = 0.056 in^2/ft As: Provided = 0.122 in^2/ft	d = Thk-Cover	= f = = 1	
One Way Shear: Try: $Fv = 2*(f'c^.5) = 100.00 psi$ Actual Shear / Phi = 16.09 psi	#4 @ 19.5 " #5 @ 30.5 " #6 @ 43.5 "	#7 @ #8 @ #9 @	58.5 " 77.5 " 98.5 "
HEEL DESIGN			
> Neglect Upward Soil Pressure? Y=1,N=0)> 0		
Mu''= Downward = ERR ft-# Mu Mu' = Upward = ERR ft-#			ERR ft-#
<pre>> % Steel Minimum = 0.0012 As : Required = ERR in^2/ft As : Provided = ERR in^2/ft</pre>	Rebar Cover d = Thk-Cover 'm' = R-u	= = = =	2 NA in NA NA psi
One Way Shear: Try: Fv = 2*(f'c^.5) = NA psi Actual Shear / Phi = ERR psi	#4 @ ERR " #5 @ ERR " #6 @ ERR "	#7 @ #8 @ #9 @	ERR " ERR " ERR "

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DATE:	BY :

TOP STEM SECTION DESIGN

> WALL MATERIAL : CONCRETE = 1, MASONRY = 2 :>>	1	<<
> f'm Masonry = 1,500 psi > Bottom Ht. above TOF	=	0 ft
<pre>> Fs : For Masonry = 24.000 psi Loaded Section Height</pre>		
> f'c Concrete = 2,500 psi		
> Fy : For Concrete = 40,000 psi Total Lateral Press.	=	315 #
> Load Factor = 1.00 Maximum Ms:Service		
> Grouting? Y=1 N=0 > 0		SIS IC #
> Inspected ? Y=1 N=0> 0 > WALL THICKNESS		8 in
> Center=1 , Edge=2 -> 2	_	O III
> REBAR SIZE	ш	4
	#	4
Masonry: Actual Allow. REQ'D SPACING		27.50 in
f'm = NA NA psi Rebar Area Supplied	==	0.09 in^2
fs = NA NA psi 'd' for design	=	6.00 in
Bond Length Req'd = NA in Allowable Unit Shear	===	
Actual Unit Shear		7.4 psi
		Par

THE COPPLANTS A 350 beach USE "BY 34" om Metal Screbb chibel. (B) FLAMING -(3) 2x6 571103 (3x 8 PLY 201775) 2350 WU.C. 1000 10c (11) 12'COX, A HAUNG -(E) SHEATH'G MI P.T. 3XL SILL WY 56' D XIL' A.D. E 32" 0.4 W 2" X L' X SILL WY W ASHERS 10d 64"0, L 11 H = 12" O.L. HAR 12" O. L. 3'-o" MAX ED SLAB # 5. 14 = 12 0.4. 17. <u>cir</u> FOUNDATION DETAIL A-850 T'AS AND OF FA. DIDER, USE T FB XXX' SHT METI SCREDIS & SUBPL · (b) FRAHING · (E) SUEFEL-1256700,6 10 de 4 0.4 -2x8 Block 648 ac W7465 to top R. lode 4"ac. CHING COX LLY (N) 2x6 office (3xe FLY JOINTS).
e 10"0.4
(N) F.T. ox6 one ky 5/6" p x12" A:Be ____
10"0.4 ky 2" x2" x3/6" R KARAFERS iode d'ac. 10 de 4"014. MENTAL THE SEE A/SI FOR HOCE IHED

Page 10/3

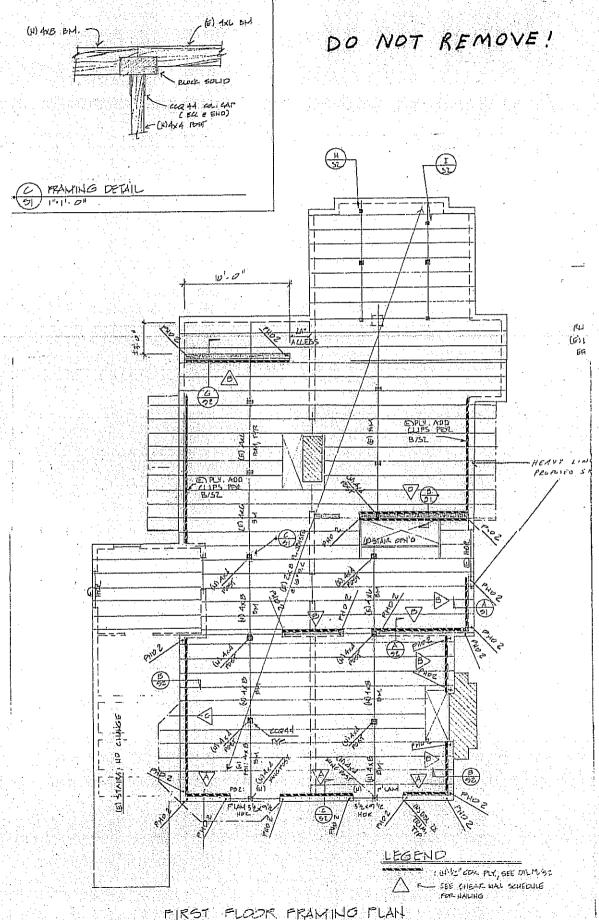
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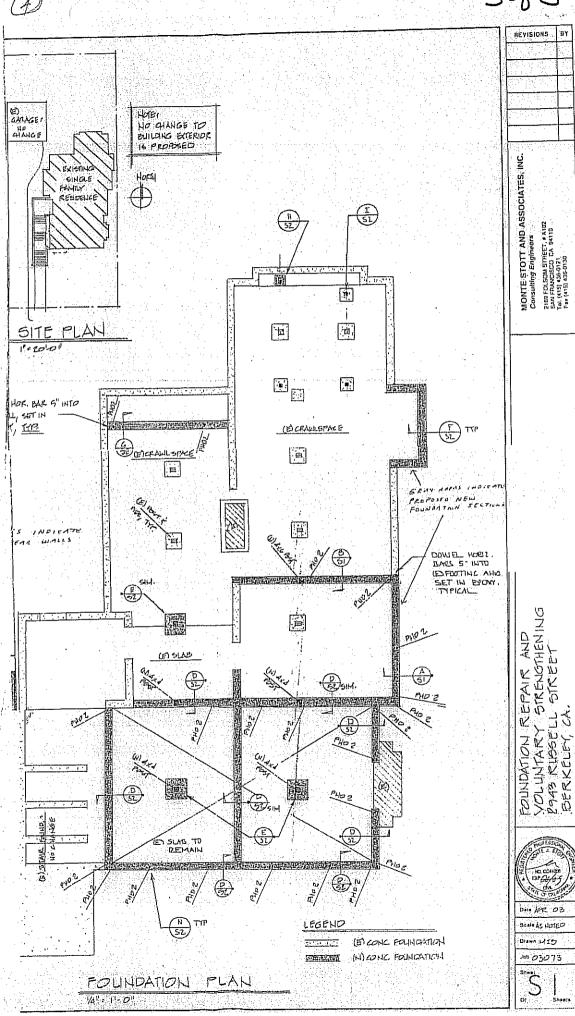
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MY ON FRAMICS.

FOUNDATION DETAIL











POWER + LIGHT proposal

4/17/03 1 of 1

to: Peter Damm

Berkeley Hills

o: 524-9888 x13

t: 525-7799

2943 Russell St.

Livingston Residence

Correction of

Electrical Hazards and

Code Violations

Based on a brief examination of the property, P+L recommends the following corrections and improvements, and agrees to furnish labor, materials and equipment as required to perform the electrical installations, as specified below:

1. 125A 120/240V Service Replacement, including Code required Grounding and Bonding; Permit and inspection fees. Existing main FPE eliminated.

2: Basement Sub-panel: Eliminate existing FPE panel and transfer all overcurrent protection functions to new

breaker panel in same location.

685.00

1495.00

3. Sub-space: Correction of corroded and unsupported cables.

95.00

4: Closet lights: Replace 2 existing fixtures with fluorescent.

185.00

5. **GFIs:** Replace existing outlets with GFI receptacles, as per NEC requirements.

140.00

concealed & unknown conditions: No comprehensive survey was performed, and the only defects observed were addressed above. If, during the course of the installation, unforeseen conditions requiring correction are discovered, the Owner will be notified, and, at his or her request, those repairs performed at a fair and

equitable additional cost.

7. Damage & Repairs: Where penetrations are required in walls, ceilings and other surfaces, P+L will perform a rough patch, only. All painting & other finish repairs, by others.

8. TOTAL: 2600.00

Due, in full, upon completion of electrical work.

Note: An additional connection fee may be assessed by PG&E and billed to the customer directly.

POWER + LIGHT 6420 Vallejo St. volce: 654-9968 Oakland, CA fax: 654-9969 94608

RECEIVED AND READ

NUMBER OF PAGES

DATE

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Customer MS. M. LIVINGSTON	THE CHELSEA CO.
Address <u>2943 RUSEUL</u> City <u>BERKELEY</u>	FOR ALL YOUR FIREPLACE AND CHIMNEY HEEDS
Phone Ly 16 03	BONDED & INSURED PAUL GOODACRE CONT. LIC. #691812 (510) 597-0333
DINJUG ROOM SYSTEM: - ABOVE THE ECOF: - The column above The roof to unside a structord enclosure: The original masorony alumn connot to seen. The enclosure is in good condition. a combination sprant- omesor/raincap/chimneypan covers The entire bon of the enclosure -	ful appears to vent the fireplace: the two outside flues are apparently no longer in use. The fireplace flue is dirry, + is missing one section of liner approx 7 lelow top - this is a non- conforming condition is not a fire toward in normal use + armost easily be rectified. ATTIC: The column in the attic is on
the center section was removed to	good cornellion
(see below)	
The column contains 3 terra-cotta	late fricks. The smoke chamber is in
lined 8th square flues: He center	good condition - there is no damper.
CHIMNEY Brickwork Mortar Flue tiles Crown Wash Spark/raincap	The facing + hearth are in good condition and a conforming size. Betereut: - The exposed column, sub-hearth + faundation at the column are in good condition. There is an opening in column to R. where utility veried. PECOMMEND: - (1) Rebuild firebot \$1,075 00 (2) Supply install chimneylop damper (to meet Berkeley R.E.C.O.) \$ 295 00 (3) Sweep chimney \$ 125 00 (4) Brick up disused utility very hole on baxment \$65 00 NOTE: - column cannot be seen behind ler + 200 from walls: see #5 at bottom. RECEIVED AND READ NUMBER OF PAGES
PLEASE NOTE:	NAME DATE
1. Fireplace draw cannot be tested a 2. Estimates are good for sixty (60 3. Payment becomes due upon complet. 4. Our observations, conclusions, a using that degree of care and sk utable chimney professionals undising in this area. 5. This inspection report is based guarantee is implied regarding his shifting or changing soil conditable that the collapse in seismic activity. 7. We recommend regular inspection.	days. ion of job. Ind summary have been performed ill ordinarily exercised by repart similar circumstances pract— on a visual evaluation. No idden damage, improper use, or — tions. y to sustain damage or even

INSPECTION REPORT THE CHELSEA 240 Customer MG M. LIVINGSTON) 2943 RUSSIELI. BERKILE FOR ALL YOUR FIREPLACE AND CHIMNEY HEEDS City Phone BONDED & INCURED 4/16/03 PAUL GOODACEE Data CONT. INC. #49 | 11 | 2 (510) 597-4333 LIVING ROOM SYSTEM :-FIREPLACE: - The firentone back wall it in CHMUET COLUMN: - The entire masoning noor compition with deteriorated + exceed column venting the living room fivemonar joints - side walls are adequate: hlace is enclosed in a stuccoed for: There is a dammer which closes, but does at the ton is a combination snowlenot onen pronerly because archid linkel bar + supproved makonou in smoke chamber anestor/rain-con/chimney-non, one has dumned annow . 142" on left, flocking dominar. It is not notsible to see it only inspection of the flue interior, which 91 x 1311 torra-cotta lined + vin cracks have onemed that could be haromous abod condition , No mant of the original as a result of slumpting. mosonni column com le ceen except Facuma hous selled arrivore. Yz" from let for one exposed face on basement. to right. Hearth has settled column has totaled slightly away from house (see separation from floor in backment. Sub-treath Unsatisfactory commot be seen because of more wishalled SYSTEM EVALUATION beneath it. RECOMMENTO CHIMNEY -A temo bade wall of firebox to remit Brickwork kurther in stack on a smoke - chamber Mortar: anea + assessment a damage caused Flue tiles by slumping lintel bur. Does not Crown Wash include rebuild back wall, nor repairs Spark/raincap that may be needed. DNOTE: - Damper class as nor Berkoley PIREPLACE R.E. C.O. requirement, but Does not Hearth Other completely Firebox -Facing -Damper Smoke chamber * Recommend to not use as is it PLEASE NOTE: 1. Pireplace draw cannot be tested as part of this inspection. 2. Estimates are good for sixty (60) days.

1. Payment becomes due upon completion of job.

4. Our observations, conclusions, and summary have been performed using that degree of care and skill ordinarily exercised by rep utable chimney professionals under similar circumstances practising in this area: 18ing in this area;
5. This inspection report is based on a visual evaluation. No guarantee is implied regarding hidden damage, improper use, or shifting or changing soil conditions.

6. All masonry structures are likely to sustain damage or even collapse in seismic activity.

7. We recommend regular inspection and servicing by a professional.

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This is an inspection report only - not a Notice of Completion. **400W**

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	LIVE OAK STRUC 801 Camelia Street # Berkeley, California (510) 524–7101	¥8).							A LIC OPER HIS I RELA	MP he CENSE LATOR FIELD. TIVE JLD BE	D PE IS AN	ST (AN E) Y QL THIS	CONT (PER JEST REP	TROL IT IN IONS ORT			
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Inspected by Will Linville Ucense No. FR28517 Signature

You are entitled to obtain copies of all reports and completion notices on this property filed with the board during the precading two years upon payment of a \$2.00 search lee to: The Structural Pest Control Board, 1422 Howa Avenue, Suite 3, Sacramento, California 85825-3280.

NOTE: Questions or problems concering the above report should be directed to the manager of this company. Unresolved questions or problems with services performed may be directed to the Structural Pest Control Board at (213) 887-7838, (415) 557-8114, or (816) 283-2533.

RUSSELL STREET

BERKELEY

BUILDING NO.

STREET

CIT

STAMP NO.

04/09/03 DATE OF INSPECTION 003067 WL CO. REPORT NO.

AREAS NOT INSPECTED - PLEASE READ

This is a report of an inspection for wood-destroying pests and organisms in an unfurnished, vacant, single-family structure. The detached garage was not included in this inspection.

What is a Wood-Destroying Pests and Organisms Inspection Report?

IMPORTANT: Please read the following explanation. It explains the scope and limitations of a structural pest control inspection and a Wood Destroying Pests and Organisms Inspection Report.

A Wood-Destroying Pests and Organisms Inspection Report contains findings as to the presence or absence of evidence of wood destroying pests and organisms in visible and accessible areas and contains recommendations for correcting any infestations or infections found. The contents of Wood-Destroying Pests and Organisms Inspection Reports are governed by the Structural Pest Control Act and regulations.

Some structures do not comply with building code requirements or may have structural, plumbing, electrical, heating, air conditioning, or other defects that do not pertain to wood-destroying organisms. A wood-Destroying Pests and Organisms Inspection Report does not contain information on such defects, if any, as they are not within the scope of the licenses of either the inspector or the company issuing the report. Please consult with a home inspector for information on such matters.

The Structural Pest Control Act requires inspection of only those areas which are visible and accessible at the time of inspection. Some areas of the structure are not accessible to inspection, such as the interior of hollow walls, spaces between floors, stall showers over finished ceilings, enclosed bay windows, buttresses, areas concealed by carpeting, built-in appliances, or cabinet work and areas to which there is no access without defacing or tearing out lumber, masonry, or finished work. Infestations or infections may be active in these areas without visible and accessible evidence. If you desire information about areas that were not inspected, a further inspection may be performed at additional cost.

In the event damage is found to extend further than outlined in any of the items listed on this report during the course of the repairs by LIVE OAK STRUCTURAL, we will issue a supplemental report with findings and recommendations for repairs at additional costs. LIVE OAK STRUCTURAL, INC. will not be responsible for any damage more extensive than outlined, if others perform the repairs.

GUARANTEE:

All work performed by LIVE OAK STRUCTURAL, INC. is guaranteed for one year from the date of completion with the following exceptions: plumbing, grouting, caulking, re-setting of toilets, linoleum work, shower and glass repairs, and roofing are guaranteed for ninety days from the date of completion.

NOTE: LIVE OAK STRUCTURAL, INC. recommends that the Owner have this structure inspected annually as part of a regular home maintenance program. Please let us know if you would like us to schedule such an inspection.

This is a separated report which is defined as SECTION I/SECTION II conditions evident on the date of inspection. Section I contains Items where there is visible evidence of active infestation, infection or conditions that have resulted in or from infestation or infection. Section II Items are conditions deemed likely to lead to infestation or infection but where no visible evidence of such was found. Further inspection Items are defined as recommendations to inspect area(s) which during the original inspection did not allow the inspector access to complete the inspection and cannot be defined as Section I

RUSSELL STREET

BERKELEY

BUILDING NO.

STREET

CITY

STAMP NO.

04/09/03 DATE OF INSPECTION 003067 WL CO. REPORT NO.

or Section II.

NOTE: Local Building Departments require working smoke detectors in sleeping rooms, hallways, and one on each level of the house before they will final any Building Permit. Live Oak Structural, Inc. would be glad to provide and install necessary smoke detectors at a cost of \$35.00 each. Please let us know if you would like us to perform this service.

NOTE: This company will reinspect repairs done by others within four months of the original inspection. A charge, if any, can be no greater than the original inspection fee for each reinspection. The reinspection must be done within ten (10) working days of request. The reinspection is a visual inspection and if inspection of concealed areas is desired, inspection of work in progress will be necessary. Any guarantees must be received from parties performing repairs.

In the opinion of our inspector, a building permit is required to carry out some or all of the work recommended in this report. Live Oak Structural, Inc. will provide a building permit as part of our service when hired to carry out recommendations which require a building permit.

NOTICE: The Structural Pest Control Board encourages competitive business practices among registered companies. Reports on this structure prepared by various registered companies should list the same findings (i.e. termite infestations, termite damage, fungus damage, etc.). However, recommendations to correct these findings may vary from company to company. You have the right to seek a second opinion from another company.

The exterior surface of the roof will not be inspected. If you want the water tightness of the roof determined, you should contact a roofing contractor who is licensed by the Contractor's State License Board.

(1) SUBSTRUCTURE AREA

1A. FINDING: Others have installed plywood panels with inspection

holes cut into the plywood on the lower base framing at various locations in the subarea. Inspection of the areas behind the plywood with a flashlight revealled no indications of infestation, infection or damage from wood destroying pests or organisms.

(SECTION II)

RECOMMENDATION: The Owners should have this and other parts of the

building inspected regularly as part of a home

maintenance program.

COST: OWNER

1B. FINDING: Subterranean termite tubes were found scattered

throughout the lower base framing along the right side of the subarea. The tubes were broken open and they were dry and appeared to be abandoned. There were no signs of active infestation. (SECTION I)

RECOMMENDATION: Remove or mask over all accessible termite tubes. In

light of the evidence of previous infestation, the Owner should have this area inspected regularly.

COST: \$50

1C. FINDING: There were water stains on the subfloor and wall sheathing at the right-front corner of the building.

This is an indication that water has penetrated through the exterior stucco surface of the building. However, there was no evidence of wood-destroying pests or organisms at the time of this inspection.

(SECTION II)

RUSSELL STREET

BERKELEY

BUILDING NO.

STREET

CITY

STAMP NO.

04/09/03 DATE OF INSPECTION

003067 WL CO. REPORT NO.

RECOMMENDATION:

The Owner should keep the exterior surfaces of the building well-sealed and painted at all times to prevent moisture penetration in the future.

COST: OWNER

1D. FINDING: A test hole in the stucco abutment at the left side of the entry stairs revealed fungus damage to the sheathing and framing. The only way of knowing exactly how far the damage behind the stucco extends in all directions is to uncover the damage by removing the stucco. Such removal is not practical and is not a part of our standard pest control inspection. Our recommendation is based on our assumption about the extent of the damage, but we may discover more damage in the course of our repairs. (SECTION I)

RECOMMENDATION:

Our recommendation is to remove the stucco a maximum of 16' starting at the left-front corner of the banister and leading towards the rear of the building and from the ground upwards approximately 6'. Remove and replace the struturally damaged wood members and sheathing. In addition, provide and install stucco paper, stucco wire, and new stucco with a texture to match the existing stucco as closely as possible. Prime paint the new stucco.

If, in the course of performing these repairs, damage is found to extend beyond the limits specified above, we will issue a Supplemental Report with findings and recommendations for additional repairs at additional cost. We will proceed with the addtional repairs only with the Owner's written authorization.

COST: \$3300

FINDING:

Three 2X4 studs in the partition wall at the right side of the stairs that lead down to the basement are in contact with the earth. The 2X4 studs have been damaged by fungus infection at the base. (SECTION I) Cut off the bottom of the 2X4's and install on a

RECOMMENDATION:

pre-cast concrete pier.

COST: \$510

(2) STALL SHOWER

2A. FINDING:

The upstairs stall shower was not tested at the time of this inspection. The Owner informed us that the shower has been leaking onto the ceiling in the room directly below this stall shower and the sheetrock of the ceiling has recently been repaired. (SECTION II)

RECOMMENDATION:

The Owner should contact a licensed contractor who specializes in bathroom stall showers for the removal and replacement of this shower.

OTHER TRADES COST:

FINDING:

We water tested the stall shower in the downstairs hall bathroom for at least fifteen minutes after we plugged the shower drain and filled the base to within one inch of the top of the shower dam (the curb that you step over in order to enter the shower). Leakage was evident below the shower with fungus damage to the sheathing and framing members. (SECTION I)

RECOMMENDATION:

The Owners should contact a licensed contractor who specializes in bathroom remodeling for the removal of the existing shower, the removal and replacement INSPECTED 2943 RUSSELL STREET

BERKELEY

BUILDING NO.

STREET

003067 WL

STAMP NO

04/09/03 DATE OF INSPECTION

CO. REPORT NO.

of the damaged sheathing and framing members, and the installation of a new shower in this bathroom.

mortar for the base and concrete backerboard on the

COST: OTHER TRADES

(3) FOUNDATIONS

3A. FINDING:

There is a faulty grade condition at the rear of the building where the concrete patio has been poured up against the rear of the building. This condition exposes the wooden members of the structure to the moisture in the ground which provides easy, hidden access for any termites which might be in the soil. However, there was no evidence of any wood destroying pests or organisms in the visible and accessible areas at the time of the inspection. (SECTION II) Install a concrete flashwall bonded to the foundation

RECOMMENDATION:

and extending above the exterior earth level to

isolate the wooden members from the soil.

COST: \$6200

3B. FINDING:

The mudsill (the horizontal piece of wood on top of the foundation) is below the level of the ground, creating what is called a "faulty grade level". This condition exposes the wooden elements of the structure to the moisture in the ground and provides easy and concealed access into the structure for any termites which might be in the ground. Structural damage caused by fungus infection is evident in the mudsill. (SECTION I)

RECOMMENDATION:

Remove and replace all structurally damaged wood members as necessary. Install a concrete cap on top of and connected to the existing concrete foundation, per the Uniform Building Code and the local building department requirements, so that the top of the cap is at least six inches above the level of the ground. Prepare and prime paint siding material as necessary.

COST: \$3400

(4) PORCHES...STEPS

FINDING:

The wooden framework underneath the concrete stairs and landing at the area indicated on the diagram has been damaged by fungus infection. The damage has been caused by water penetrating through the surface of the concrete above. (SECTION I)

RECOMMENDATION:

Remove and replace all structurally damaged members as necessary with pressure-treated fir to minimize further damage. The Owner should keep the concrete surface of this landing and stairs well sealed at all times to prevent any moisture from penetrating to this area in the future.

COST: \$1100

(10) OTHER...INTERIOR

The skylights across the rear of the building in the 10A. FINDING:

sun room appear to be leaking. There were water stains on the framing members visible from the interior of this room. There was no evidence of wood destroying pests or organisms. (SECTION II)

RECOMMENDATION:

The Owner should contact a licensed roofing

contractor to evaluate the water-tight integrity of

the skylights and make any necessary repairs.

OTHER TRADES COST:

RUSSELL STREET

BERKELEY

BUILDING NO.

STREET

CITY

STAMP NO.

04/09/03 DATE OF INSPECTION 003067 WL CO. REPORT NO.

...EXTERIOR (11) OTHER,

The window casing at the rear of the building has 11A. FINDING:

been damaged by fungus infection. (SECTION I)

Remove the bottom portion of this window casing and RECOMMENDATION:

replace it with new redwood material which will be painted with a white primer on all sides and edges prior to installation. The Owner is to finish paint.

និ300 COST:

The two multi-light french doors and the door jambs 11B. FINDING:

at the rear of the building have been damaged by

fungus infection. (SECTION I)

Remove and replace the entire door jambs, sills, and RECOMMENDATION:

doors. Prime paint the exposed exterior wooden

members with a white primer. The Owner is to finish

paint. COST: \$6800

11C. FINDING: The 8X8 cross-member on the trellis, at the rear of

the building has been damaged by fungus infection

(SECTION I)

Remove and replace the damaged wood member as RECOMMENDATION:

> necessary utilizing a new pressure-treated 8X8 beam which will be painted with a white primer on all sides and edges prior to installation. The Owner is

to finish paint.

COST: \$900

11D. FINDING:

The top of the wooden rain gutters have been damaged by fungus infection across the rear of the

building. (SECTION I)

RECOMMENDATION: The Owner should contact a licensed roofing and/or

gutter contractor for removal and replacement of these wooden gutters throughout the entire building.

Other Trades COST:

Thank you for the opportunity to inspect your property. Please give us a call at (510) 524-7101 if you have any questions regarding this report. If you decide that you would like us to do some or all of the work, please list the items that you would like us to do on number 8 of the enclosed Work Authorization, sign and date the Authorization, and return it to us. We will then contact you to schedule the work.

LIVE OAK STRUCTURAL, INC.
Registration No. PR2353
702 Harrison Street, Suite B
Berkeley, California 94710
(510) 524-7101

FILE COPY

WORK AUTHORIZATION CONTRACT

and incorporate	ct between Live Oak S s Live Oak's pest con SSELL_STREET, F	trol report # 0306	Ann Livings 7 dated		eal property located
ITEMIZED COST	BREAKDOWN (Refer	to items on the report)			
	Item on this report is				
SECTION 1		1D. 3300.00	1E, 510,0	0 2B.Others	
	4A, 1100.00	11A. 300.00	11B, 6800.	00 11C. 900.00	11D.Others
CECUTON !	TOTAL SECTION 1	17KMS=\$ <u>16360</u>	<u>, 00</u>	33 (000 00	
SECTION A	TOTAL SECTION 2	TTPMC-6 6300	ZA.UCHETB	3A. 6200.00	10A.Others
	INSPECTION:	NONE.	.00		
Total: <u>2256</u>	0.00				
cost over and a	ioted, nor included, a bove the original esti- THE REPORT CAREFU	mate.		raport may contain prov	visions for additional
MINIMUM CHAI	RGE FOR ANY WORK	PERFORMED IS \$50	00.		
CONDITIONS:					
LIVE OAK STRU	JCTURAL, INC. reserv	es the right to incre	ase prices.	acceptance within 30	
will not be perfor such work a	ormed under this Wor	k Authorization. LiV II proceed upon rec	E OAK STRUCTU	s required by the City of IRAL, INC. will make a s Change Order. Smoke of	separete quotation
operator who cheips to improve property. This roof the sale uses subcontractor, property, certal document entitinotice. A Prellinave a right to	ontracts to do work for your property, but is neans that after a could to satisfy the indebt laborers or suppliers in claimants such as a lied "Preliminary Notice is not a file a lien against your	or you, any contractor not paid for his wo rt hearing, your properior sciness. This can ha remain unpaid. To proper ubcontractors or ma solution. Ilen against your property if they are	r, subcontractor, ork or supplies, hostly could be so ppen even if you reserve their righ terial suppliers a ors and laborers operly. Its purpos o not paid.	c's Lien Law, any struct laborer, supplier or oth as a right to enforce a lid by a court officer an have pald your contract to file a claim or lien or re required to provide y for wages do not have se is to notify you of pe	ner person who claim against your dithe proceeds ctor in full if the against your you with a to provide this practically who may
4. In the ev may be awarde	ent that legal action is d to the prevailing par	necessary to enformaty.	ce the terms of t	nls contract, attorney's	fees and court costs
Inspection or was agrees to waive to the presence LIVE OAK STRI	ork at the premises consisted and and all claims ago of asbestos on the purctural, INC. come	ause a release of as painst LIVE OAK STF remises. Finally, Ow upon asbestos-cont	bestos dust or p RUCTURAL,INC. o ner/Agent/Tenant sining material in	or work at the premise articles, Owner/Agent/To if any nature which are acknowledges and age the course of its work cessary, of the asbeston	enant hereby In any way related rees that should on the premises.
 Operation employees are insurance. 	ns are covered under covered by Worker's	LIVE OAK STRUCTU Compensation Insur	RAL,INC.'s struct ance and LiVE O	ural pest control licens AK STRUCTURAL, INC.	e and appropriate by public Hability
7. TERMS	F PAYMENT: We agre	e to pay LIVE OAK	STRUCTURAL IN	C. the sum of	upon
completion of v	vork, or if applicable, p even days after the da	noqu beerge ne rec	Progress Paymer	nt Schedule. Accounts mum legal rate will be c	•
a. We autho		TURAL, INC. to perf	orm Items	· · · · · · · · · · · · · · · · · · ·	
I have reed this	s contract and the Stru	ctural Pest Control	Report that it refe	ers to.	
Owner/Sell	er/Buyer	Date			
	-				
Owner/Sell	er/Buver	Date			



BLOCK ENVIRONMENTAL SERVICES

2451 Estand Way Pleasant Hill, CA 94523-3911 (925) 552-7200 FAX 655-0399

RECEIVED AND READ

NUMBER OF PAGES

November 7, 2002

Ms. Donna Day CA AAA Insurance P.O. Box 920 Sulsun City, CA 94585

NAME	DATE	TO COMPANY AND
		•
NAME	DATE	THE PARTY STANDS OF CASE SAND

Subject: Post Abstement Testing at 2943 Russell Drive, Berkeley, CA Claim Number 06-3182995; Livingtains

Dear Ms. Day:

Block Environmental Services (BES) is pleased to provide the results of the post abatement testing at the subject residence. Remedial activities were conducted by Paul Davis Restoration. The remediation was based on protocols developed by BES to CA AAA Insurance on August 3, 2002. Remedial activities included containing the solarium area, removal of drywall under the stairs as well as removal of the ceiling under the office floor and west wall of the solarium. The stree was HEPA scrubbed and vacuumed. BES made a site visit on October 3, 2002 and again on October 17, 2002 for the purposes of post abatement testing. Sample locations on October 3, 2002 included the upstairs bathroom where the water intrusion originated, the downstairs solarium within the contained area and an outside reference sample collected from the back of the house. A tape lift sample was collected from a wood member under the stairs. The sample locations on October 17, 2002 included the solarium and the outside reference sample.

METHODOLOGY

The airborne spore samples were collected from a height of about 4 feet, which is simulates the breathing zone of a person. An Air-O-Cell cassette was connected to a Gast high volume vacuum pump calibrated with an in line rotometer for a five-minute sample at 15 L/minute for a total of 75 liters of air. The tape lift sample was collected by pressing a clear piece of tape against a suspected area and scaling in a zip lock bag for latter wet mounting at the laboratory The sample cassettes were sent under chain of custody to Environmental Microbiology Laboratory in San Bruno, CA to be analyzed qualitatively and quantitatively for mold spores. The laboratory is AIHA EMPAT accredited and specializes in microbiology of the built environment.

RESULTS

October 3. 2002

The results of the fungi sampling are presented below. Values are expressed as spores/m1.

	S-1i	Upstairs bathroom	Outside reference
Location	Solarium	107	267
Basidiospores	Ų .		1,490
Cladosporium	1,070	320	
Penicillium/Aspergillus	3,570	480	373
Stachybotry	0	0	0
Total Spores	4,693	934	2,130



Ms. Donna Day CA AAA Insuranco Page 2

The data collected on the date of sampling indicated amplification of Penicillium/Aspergillus type spores at almost 10 times the outside reference level. The total spore level was amplified by more than two times the outside reference level. It was suggested that Paul Davis disinfect the wood members on the coiling and walls and continue air scrubbing for another 24 hours. The tape lift sample collected from a wood member under the stairs indicated a normal trapping of spores.

October 17, 2002

The results of the fungi sampling are presented below. Values are expressed as spores/m1.

Location	Solarium	Outside reference
Alternaria	0	13
Ascospores	107	107
Basidiosporca	1,010	1,280
Chaetomium	13	0
Cladosporium	587	1,970
Penicillium/Aspergillus	160	107
Stachybotrys	0	0
Total Spores	1,930	3,609

The data indicated that the inside spore level in the solarium was 53 percent of the outside spore level. Typically the indeer spore level air is 25 to 75 percent of the outside air spore level. There was an unremarkable amplification of Psnicillium/Aspergillus type spores that is not of a health concern and will dissipate with time. In fact the level of Psnicillium/Aspergillus found in the inside air is more than two times less than founding the outside air on the previous sampling period.

CONCLUSIONS

Based on the data presented above, the indoor air quality for airborne fungi is of acceptable quality for a healthy indoor environment. No further action is required for remediation.

Laboratory data and chain of custody documentation is attached.

Very truly yours,

Block Environmental Services. Inc.

Ronald M. Block, Ph.D., REA

Principal Toxicologist

Environmental Microbiology Laboratory, Inc. 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Block Environmental Services

C/O: Mr. Ron Block Re: Russell St., Berkeley Date of Sampling: 10-17-2002 Date of Receipt: 10-21-2002 Date of Report: 10-22-2002

SPORE TRAP REPORT: NON-V	1-39 Sol	67535: arium		967559: eference, back
Comments (see below)		one		A
Lab ID-Version‡:	134	110-1	13	4111-1
	raw ct.	apores/m3	raw ct.	врокев/m3
Alternaria	ł		i	13
Arthriniùm				
Ascospores*	8	107	8	107
Aureobasidium				
Basidiospores*	76	1,010	96	1,280
Bipolaris/Drechslera group				
Botrytis			4	53
Chaetonium	1	13		
Cladosporium	44	587	148	1,970
Curvularia				
Bpicoccum				
Posarium				
Myrothecium		<u></u>		
Nigrospora			1	13
Other brown	1	13	1	13
Other coloriess				
Penicillium/Aspergillus types†	12	160	8	107
Pithomyces				
Rusts			1	13
Smuta*, Periconia, Myxomycetes*	3	40	3	40
Stachybotrys chartarum (atra)				
Stemphyllum				
Torula				
Ülociadium				
Unknown				
Zvyemvceten	为自我的 对象。			·
Background debris (1-4+)††	3+		2+ 75	•
Sample volume (litera)	75		75	
TOTAL SPORES/M3		1,930		3.609

Comments: A) 20 of the raw count Cladosporium spores were present as a single clump.

^{*}Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi.

Most of the basidiospores are "mushroom" spores while the rusts and amuts are plant pethogens.

† The spores of Aspergillus and Penicillium (and others such as Acremonium, Poscitomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†† Background debris is an indication of the amount of non-biological particulate matter present on the slids (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debris may phacure the small spores such as the Penicillium/Aspergillus group. Counts from areas with 4+ background debris should be regarded as minimal counts and may actually be higher than reported.

‡ A "Version" greater than 1 indicates amended data.

EML ID: 56078, Page 1 of 1 EML ID: 56078, Page 1 of 1

Environmental Microbiology Laboratory, Inc. 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Block Environmental Services

C/O: Mr. Ron Block Re: Russell St., Berkeley Date of Sampling: 10-17-2002 Date of Receipt: 10-21-2002 Date of Report: 10-22-2002

DIRECT MICROSCOPIC EXAMINATION REPORT (Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	sporulating structures	Other Comments††	General Impression
Light	Vary few	ple 1-T: Under stairs None	None	Normal trapping

^{*} Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomyceies, plant pathogens such as ascentiones, rusts and a muis, and a mix of saprophytic genera with no particular spore types predominating. Distribution of spore types seen mirrors that usually seen outdoors.

[†] Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

ti Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skowing of the distribution of spore types, and also to note "marker" genera which may indicate indees mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

[‡] A "Version" greater than I indicates amended data.

CHAIN OF CUSTODY

BLOCK ENVIRONMENTAL SERVICES

2451 Estand Way Phonesut Hill, CA 94573 (925) 642-7249 Fax (925) 686-9399.

		Signature	same day (vert day) 3 day standard		
Contact Name Roy Block	Project mandamater 12 usell St Berkeley	کلمہ	Turn Around Time: (circle one)	Neotes:	

	Location	Date/Tuese	Smaple Type	Plow rate (Jeniu)	Time(win)	Tetal Volume(L)	Comments
-3967535 Sc	Solarium	14 FA 13.30	7	15	5	75	
00	2-3967559 outside Berence		2	15	>	7.5	Back
un	under States	4	۲	1	1	/	
- {	,						
	2. Zenomine of consister 1 tage Consister Beimpatined By 15 me L. M. Br. J.	Parts: 10/7/6	Mor Tant 20:30 Benjad Br.	Boostond Br.	A)		日本大人 Ta 万分
[Personal	(Par				(algaziane)		
(nigendance)	ac)				(algebra)		
4	1			Received by:			Deale: Tene
	ME)				(elegantere)		

Environmental Microbiology Laboratory, Inc. 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Block Environmental Services

C/O: Mr. Ron Block Re: Russel St., Berkeley Date of Sampling: 10-03-2002 Date of Receipt: 10-04-2002 Date of Report: 10-04-2002

Russel St., Berkeley ORE TRAP REPORT: NON-Vocation:	/IABLE 1 1-38 Soladi	METHODOL 15382: im stairs	Dan	15364: nroom	3-3815 Outside n No	ference
		one	_	lons	1273	19-1
omments (see below)	127	337-1	127	7338-1		spores/m3
ab ID-Version‡:	raw ct.	Em/estoge	raw ct.	spores/m3	raw ct.	1000
Jiemaria	•					
rthrinium						
Ascondores*				105	20	267
Aureobasidium			8	107	20	
Basidiospores*		<u> </u>			 	
Bipolaris/Drechslera group					 	
Botrytis					112	1,490
Chaetomium	80	1,070	24_	320		
Cledosporium	bU	1413		<u> </u>	}	
Curvularia						
Epicoccum		_				
Fusarium	 	_				
Myrothecium	 	_				
Nigrospora						373
Other coloriess		3,570	36	480	28	3/3
Penicillium/Aspergillus types†	268	3,570				ļ
Pithomyces			_			
Busta I			$\frac{1}{2}$	27		<u> </u>
Carried Periconia, Myxomycotcs	• 4	53				
Stachybotrys chartsrum (atra)						
Stemphylium						1
Significant			_			
Torula						<u> </u>
Ulocledium			_			
Unknown					2+_	
Zygoniycetes Background debris (1-4+)††	3+		34 75		75	<u> </u>
Hackground denies	75		/3_	934		2,130
Sample volume (liters) TOTAL SPORES/M3		4,693		7,74		

Comments:

^{*} Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sportleting fungi.

Most of the basidospores are "mushroom" spores while the rusts and amust are plant pathogens.

† The spores of Aspergillus and Pentcillium (and others such as Acremonium, Pascilomyces) are small and mund with very few distinguishing characteristics. They cannot be differentiated by non-visible sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†† Background debts is an indication of the amount of non-biological particulate matter present on the slide (dust in the air) and is graded and may be undercounted.

†† Background debts is an indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This background debts should be background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debts should be background material is also an indication of visibility for the analyst group. Counts from areas with 4+ background debts should be debtis may obscure the small spores such as the Pentcillium/Aspergillus group. Counts from areas with 4+ background debts should be regarded as minimal counts and may actually be higher than reported.

EMIL ID: 55139, Page 1 of 1 BML ID: 55139, Page 1 of 1