

City of Lincoln Park
Community Planning & Development
1355 Southfield Rd.
Lincoln Park MI 48148
Phone: (313) 386-3100 ext. 30

CDBG RENOVATION – 2332 Progress

SCOPE OF WORK

ADDENDUM

Interior House

Install smoke alarms w/ 10 year battery in all locations required by code.	\$ _____
Replace 2 existing windows on 2 nd floor.	\$ _____
Insulate crawl space behind 2 nd floor kneewall to code.	\$ _____

Basement - (Delete first line item on scope under basement)

Remove drop ceiling main basement area.	\$ _____
Replace drop ceiling panels in bathroom.	\$ _____
Remove existing paneling/studs along exterior (main area) basement to cement walls.	\$ _____
Remove interior wall paneling, treat for mold as needed (see report) and replace with drywall.	\$ _____
Remove/replace wiring in ceiling/walls to conform to code.	\$ _____
Clean, prep and paint basement	\$ _____

TOTAL ADDENDUM COST \$ _____

Standard Operating Procedure

SOP #MR01 - Mold Remediation

1. Purpose

This SOP is intended to ensure effective practices for protecting workers, building occupants, and the Company -- before, during and after projects to remediate mold-bearing materials.

2. General

Unless otherwise specified, all work shall follow the New York Guidelines ("NYG" - Attached). Deviations from NYG fall into one of these categories:

- 2.1. Additional operational procedures beyond the NYG, such as communications, internal reporting, documentation.
- 2.2. Additional protective measures that go beyond the minimums specified in the NYG.
- 2.3. Clarification of ambiguous statements within the NYG.

3. Individual Responsibilities

3.1. Project Manager (PM)

- 3.1.1. Ensures that customer stays informed before, during and after the work, and is ultimately satisfied with all aspects of Protech's handling of the job.
- 3.1.2. Prepares the contract documents that define the Treatment Area, remediation tasks, Causal Factors to be corrected, and Acceptance Criteria. Determines which Level of NYG shall (at a minimum) apply.
- 3.1.3. Brings Field Supervisor into the process in a timely manner to determine availability of resources and tentative schedule. Finalizes schedule with customer.
- 3.1.4. Negotiates change orders with customer as needed to accommodate changes in scope as the project progresses. [May delegate to Crew Leader]
- 3.1.5. Performs final inspection, determines if Acceptance Criteria have been met. Interfaces as necessary with customer and third party inspector(s). Authorizes removal of containment.
- 3.1.6. Assembles documentation package. Sends report & invoice to customer at conclusion of project. Prepares job closeout form and closes project in job control database.

3.2. Service Manager (SM)

- 3.2.1. Once notified of the scope and schedule by the PM, ensures that the proper equipment and personnel are on site when and as needed. Arranges for subcontractors as appropriate.
- 3.2.2. Assists in project setup and obtains/provides technical and manpower support as needed to support field crew.
- 3.2.3. For NYG Level IV projects, verifies proper containment and provides on-site supervision.

- 3.2.4. Ensures that crew members are properly trained. Coordinates with the company Safety Officer to ensure that medical/respirator certifications are current.
- 3.2.5. Maintains personal certification as CMR or equivalent.

3.3. Crew Leader (CL)

- 3.3.1. Provides on-site project supervision, to include worker safety and site protection. [Note: For NYG Level IV projects, assists the SM in this role.]
- 3.3.2. Understands and executes the tasks assigned in the contract documents.
- 3.3.3. Recommends subcontracting of tasks as needed.
- 3.3.4. Completes field closeout form following completion of job, attaching project log and photos. Transmits to PM.

4. Personal Protection & Hygiene

At a minimum, follow NYG, with these additions/clarifications:

- 4.1. If workers are exposed to temperatures above 90⁰ F, ice vests shall be worn, on/off short shifts shall be enforced, and the Company shall provide Gatorade or equivalent.
- 4.2. Workers shall wash hands after exiting the enclosure and prior to using the hands to place anything in the mouth.
- 4.3. During the exit from the enclosure, remove the coveralls leaving them inside either the enclosure or the first stage (dirty room) of a two-stage decontamination room.
- 4.4. In the change area, doff the respirator. Remove the cartridges. Clean the surfaces of the cartridges with a disinfectant wipe and keep the cartridges for reuse. Soak and clean the respirator in a gallon of disinfectant (1/2 oz. quaternary ammonium disinfectant per gallon of water). Rinse the respirator in water, clean with a disinfectant wipe and dry with a clean towel.

5. Site Setup, Containment and Control of Affected Area

At a minimum, follow NYG, with these additions/clarifications:

- 5.1. Complete isolation of work area from occupied spaces using 6 mil Visqueen sheeting sealed with blue masking tape (including ventilation ducts/grills, fixtures and other openings.)
- 5.2. Use exhaust fan with a HEPA filter on tear out jobs to generate negative pressurization. Use the appropriate sized unit for the space, sufficient to maintain vacuum.¹
- 5.3. If containment is breached, CL shall record in project log and immediately notify the PM. Together they will determine a course of action.
- 5.4. In projects defined as NYG Level IV, if space allows, construct a two stage decontamination room with a changing area and a dirty room attached to the entrance of the containment area.
- 5.5. Where applicable, ensure that temperature within the Treatment Area is suitable for application of materials in accordance with manufacturer recommendations.

¹ For asbestos abatement, a minimum of 5 Pa (0.02 inches of water column) is often recommended. For mold work this is sufficient, but not necessary so long as a vacuum is maintained.

6. Control of Exposure to Adjacent Areas

At a minimum, follow NYG, with these additions/clarifications:

- 6.1. Reserved.

7. Biocides and coatings

At a minimum, follow NYG, with these additions/clarifications:

- 7.1. NYG state that " Non-porous (e.g., metals, glass, and hard plastics) and semi-porous (e.g., wood, and concrete) materials that are structurally sound and are visibly moldy can be cleaned and reused. ... Porous materials (e.g., wallboard, and fabrics) that can be cleaned, can be reused, but should be discarded if possible."
 - Comment: It is almost never necessary to remove roof sheathing as part of an attic mold remediation. Localized soft spots can be repaired by a roofer before or after we have done our remediation. Extensive damage can and should be handled primarily as a roofing job.
- 7.2. Operation of exhaust fans and scrubbers inside work area during application of biocide and anti-microbial paint:
 - 7.2.1. If discharge is outside building: Make sure adjacent outside windows are shut, the discharge is not close to an air intake, and window air conditioners are shut off or set on re-circulation. Keep HEPA exhaust fan on.
 - 7.2.2. If HEPA discharge is inside building: Shut off HEPA during application, turn back on when the odor is no longer noticeable.
- 7.3. Applying biocide to visible fungal growth prior to removal of material. Apply to the surface and wait two to five minutes prior to removing the material. This provides sufficient time to disinfect the material, and reduces the dust generated because the material is wetted.
- 7.4. Scrub visible contamination as needed; clean up loose residue with HEPA vac.
- 7.5. Fungicidal paint: Apply first coat after wood has dried out to at most 15% moisture content. Apply second coat after first has dried at least according to manufacturer directions.

8. Removal of Containment Materials

At a minimum, follow NYG, with these additions/clarifications:

- 8.1. Containment materials that cannot be cleaned shall be removed from the building in sealed plastic bags. The outside of the bags shall be cleaned with a damp cloth and a detergent solution or HEPA vacuumed in the decontamination chamber prior to their transport to uncontaminated areas of the building.
- 8.2. Unless otherwise specified in the Contract Documents, materials can be disposed of with other general waste.

9. Final Cleanup of the Containment Area

At a minimum, follow NYG, with these additions/clarifications:

- 9.1. To the extent practicable, all surfaces in the containment and decontamination areas shall be HEPA vacuumed and cleaned with detergent solution using a damp cloth or mop, and shall be visibly clean prior to the removal of isolation barriers.

- 9.2. Exhaust fan, vacuum or scrubber with a HEPA filter: seal the input port with duct tape prior to removal from the containment area.
- 9.3. If air scrubbers were specified, continue operation for a minimum of 6 air changes following dust-generating activity before turning off exhaust fans and removing containment.

10. Containment of Area During Reconstruction

At a minimum, follow NYG, with these additions/clarifications:

- 10.1. After the containment area has been cleaned, the enclosure can be left in place to contain dust generated by sheetrock sanding and taping activities. This is done to reduce the problems with clean up when reconstruction is completed. The use of the HEPA exhaust filter is not required. The two stage decontamination area is also not needed.

11. Correction of Causal Factor(s)

- 11.1. Correction of the underlying moisture problem (or verification that it has been addressed) is almost always within our project scope. PM to ensure that this has been accomplished, or of notifying customer in writing if further corrective work is necessary.

12. Final Inspection and Clearance

At a minimum, follow NYG, with these additions/clarifications:

- 12.1. For NYG Level 2 or greater: Prior to re-occupancy of the space, the PM or his representative shall personally conduct a visual inspection and perform air sampling if required by the contract documents to assess whether the Acceptance Criteria have been met. Re-occupancy may take place only when authorized by the PM.

References

1. NYG: *Guidelines on Assessment and Remediation of Fungi in Indoor Environments*, New York City Department of Health Bureau of Environmental & Occupational Disease Epidemiology. April, 2000 16p. (Attached)
2. *Fungal Contamination: A Comprehensive Guide for Remediation*, Wonder Makers Environmental, Inc., 2001.
3. *Mold & Construction*, Nathan Yost, M.D., Building Science Corporation. Published in Structural Building Components Magazine, Jan/Feb 2003.
4. Others as listed on the IAQA website: http://www.iaqa.org/mold_resources.htm



Report for:

Mr. Kevin White
Protech Environmental Services, Inc.
251 Jackson Plaza
Ann Arbor, MI 48103

Regarding: Project: 50437; 2332 Progress Lincoln Park ,MI
EML ID: 797911

Approved by:

Dates of Analysis:

Direct microscopic exam (Qualitative): 06-24-2011

Lab Manager
Ann Atkinson

Service SOPs: Direct microscopic exam (Qualitative) (I100005)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

Client: Protech Environmental Services, Inc.
C/O: Mr. Kevin White
Re: 50437; 2332 Progress Lincoln Park ,MI

Date of Sampling: 06-22-2011
Date of Receipt: 06-23-2011
Date of Report: 06-24-2011

DIRECT MICROSCOPIC EXAMINATION REPORT

Location:	1: Paneling	2: Concrete wall
Sample type:	Tape sample	Tape sample
Lab ID-Version‡:	3534314-1	3534315-1
MOLD/FUNGAL GROWTH* : Molds seen growing with underlying mycelial and/or sporulating structures		
Acremonium		2+
Alternaria		
Aureobasidium		
Basidiospores		
Chaetomium		
Chrysonilia	2+	
Cladosporium		3+
Colorless spore type, ID unknown	2+	
Colorless spores typical of Penicillium / Aspergillus		
Fusarium		
Other colorless, ID unknown		
Stachybotrys		
Torula		
Ulocladium		
Miscellaneous spores**	None	None
Other comments†	Analysis of replicate sample is delayed.	Analysis of replicate sample is delayed.
Background debris or Description††	Light	Light
General impression	Mold growth	Mold growth

* See Mold/Fungal Growth Details table on the last page.

** See Miscellaneous Spores table on the last page.

† 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 skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor 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.

†† Background debris is an indication of the amounts of non biological particulate matter present. This background amorphous material is graded and described as scant, light, moderate, heavy, or very heavy. (Very heavy background debris may obscure visibility.)

Interpretation is left to the company and/or persons who conducted the field work.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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Mold/Fungal Growth Rating Details

Growth Rating	Quantities of molds indicating growth are listed in the MOLD/FUNGAL GROWTH section. Judgement is used in determining the amount of growth present in the sample. For example, if only one portion of the sample has evidence of heavy growth, then it will receive a rating of heavy growth even though, strictly speaking, on a percentage basis of the entire sample, the amount of growth is low.	
	Swab/Tape/Dust/Wipe sample	Bulk Sample
< 1+ (Very Light Growth)	Evidence of very light growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in less than 10% of the microscopic fields examined.	Areas of very light growth detected by the presence of spores of one type seen with underlying mycelial and/or with their sporulating structures in the bulk sample.
1+ (Light Growth)	Evidence of light growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 10 to 25% of the microscopic fields examined.	Areas of light growth detected by the presence of spores of one type seen with underlying mycelial and/or with their sporulating structures in the bulk sample.
2+ (Moderate Growth)	Evidence of moderate growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 26 to 50% of the microscopic fields examined.	Areas of moderate growth detected by the presence of spores of one type seen with underlying mycelial and/or with their sporulating structures in the bulk sample.
3+ (Heavy Growth)	Evidence of heavy growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 51 to 75% of the microscopic fields examined.	Areas of heavy growth detected by the presence of spores of one type seen with underlying mycelial and/or with their sporulating structures in the bulk sample.
4+ (Very Heavy Growth)	Evidence of very heavy growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found to be nearly confluent in the majority of the microscopic fields examined.	Areas of very heavy growth detected by the presence of spores of one type seen with underlying mycelial and/or with their sporulating structures in the bulk sample.

Miscellaneous Spores

Slides/specimens are examined for the presence of mold spores and pollen, noting the quantities and distribution of spore types found. A designation of 'normal trapping' is made when a mix of spore types is present with the same general distribution as is usually found outdoors. In other words, the biological component of the sample surface is like that found everywhere. Types of spores present would include basidiospores (mushroom spores), myxomycetes (slime molds), plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Many of these spore types would not be found growing indoors on building materials since many plant pathogens require living plants for growth, and mushrooms require compost, leaf duff of various types, or associations with roots of certain trees, etc. Due to these factors, when a mix of spores seen include these types as well as pollen, the rational source is the outside air, rather than indoor mold growth. The numbers of miscellaneous spores seen are graded and described as shown below as none, very few, few, variety, and wide variety.

None	Very Few	Few	Variety	Wide Variety
No spores detected	Very few spores detected	A few spores detected	Many spores containing a variety of different genera detected	Many spores containing a wide variety of different genera detected



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Dates of Analysis:

Direct microscopic exam (Qualitative): 06-24-2011

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Service SOPs: Direct microscopic exam (Qualitative) (I100005)

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Client: Protech Environmental Services, Inc.
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Date of Sampling: 06-22-2011
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DIRECT MICROSCOPIC EXAMINATION REPORT
 (Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 3534314-1: Tape sample 1: Paneling				
Light	None	2+ <i>Chrysonilia</i> species 2+ Colorless spore type, ID unknown	Analysis of replicate sample is delayed.	Mold growth
Lab ID-Version: 3534315-1: Tape sample 2: Concrete wall				
Light	None	3+ <i>Cladosporium</i> species 2+ <i>Acremonium</i> species	Analysis of replicate sample is delayed.	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type 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.

†† 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 skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor 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.

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