



# DYNATECH ENGINEERING CORP.

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## A LIMITED INDOOR MOLD SURVEY

At

Hotel Building  
506-516 Espanola Way  
Miami Beach, FL

Prepared For:

INFINITY REAL ESTATE, LLC.  
1407 Broadway, 30th Floor  
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Prepared By:

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Miami, March 18, 2017



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## INTRODUCTION

Dynatech Engineering Corp. (DEC) performed a limited visual inspection and indoor mold screening on March 10, 2017 for the hotel tested areas located at 506-516 Espanola Way, Miami Beach, FL. The inspection was requested by Mr. Jacob Sinclair of INFINTY REALESTATE LLC. due to mold concerns reported in the building.

## PURPOSE

The survey is not intended to identify mold in every building material on site; rather it is a screening to determine if prevalent mold amplification is present in the tested areas at the time of our inspection.

## SCOPE OF WORK:

The scope of our survey consisted of the following:

- Visual site inspection of the building by our certified mold inspectors.
- Moisture survey of building materials.
- Thermal Assessment of indoor ambient air.
- Tape - Lift sampling for fungal assessment.
- Airborne fungal assessment.
- Photographic documentation of existing conditions.
- Documentations of our findings and recommendations.



## SITE DESCRIPTION

The subject property measures approximately 8,580 square feet of land. The site is occupied by a 3-story hotel building measuring an adjusted area of approximately 16,274 square feet. The building was built in 1925.

Construction of the building employed reinforced concrete footings and ground floor slabs, wood floor, & wood deck; block walls and flat roof. Interior finishes consist of drywall/plaster walls and ceiling and floor tiles and carpet.

The building was occupied at the time of our inspection. In addition, the building was air conditioned during our inspection.

## VISUAL SITE INSPECTION

The visual site inspection was performed by Mr. Premnath Boodoosingh (Certified Mold Inspector). The following deficiencies were noted:

### Building Exterior:

- Excessive tree leaves on the roof deck.
- Chimney plaster walls with hairline cracks.

### Building Interior:

- Visible mold growth on bathroom ceiling due to lack of exhaust fans.
- Visible mold growth on A/C vents. due to condensation from exterior air.
- High relative humidity due to open lobby and staircase access into room and hallways.



### THERMAL ASSESSMENT OF INDOOR AND AMBIENT AIR:

The indoor ambient air temperatures T° and relative humidity RH were taken in several areas on site. T° and RH readings were taken in the affected indoor areas; non-affected indoor areas and outdoor areas. Measurements for T°, RH was conducted using Extech Instrument RH 390 (see attached field sampling report).

The American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) recommend the following temperatures: 68° to 74° degrees during the winter and 73° to 79° F degrees in the summer, and relative humidity between 30 to 60 percent. Humidity levels below 60% will control mold growth.

Thermal assessment of indoor air was Not in compliance with accepted recommendations by (ASHARAEE) at the time of the inspection. Although the building was air conditioned during our inspection high relative humidity was noted due to open air access from lobby and staircase.



## MOISTURE SURVEY

With mold investigation the following is true: “Moisture is the cause, mold is the symptoms”. Fungi require water, temperature and food source to thrive.

Therefore, a limited moisture survey of interior building finishes was conducted to assess the potential for mold growth. A limited moisture survey of interior building finishes was conducted to assess the potential for mold growth.

The moisture survey was performed using a TRAMEX moisture encounter plus and a DELMHORST BD 2100 moisture meter. These instruments measure moisture levels in wood concrete, sheet rock and other building materials.

Gypsum can store approximately 1% moisture content before mold colonization occurs. Therefore DEC utilizes the 1% moisture content at the standard.

No elevated moisture levels were detected in the tested areas during our site inspection due to continued A/C operations.

## MICROBIOLOGICAL SAMPLING AND ANALYSIS

Dynatech Engineering Corp. (DEC) secured tape lift samples of contaminated surfaces as well as air sample for airborne fungal spores.

### Tape -lift Sampling:

Tape lift samples were collected to verify the presence and type of mold colony growing on a contaminated surface. Select affected areas were sampled using the tape lift method by pressing clear cellophane tape onto the surface, then transferring the tape to a microscope slide for analysis at the laboratory.

A total of two tape lift samples were collected and labeled as TL-1 & TL-2. The samples were collected from room 504 and 2nd floor corridor A/C unit. (See attached log sheet and sketch).

The samples were logged, labeled and sent to Dove Environmental Corp. for identification of fungi. A chain of custody is enclosed.

The laboratory results indicate amplified fungal growth was detected in the samples collected. Enclosed find laboratory test results for complete details.

According to EPA “mold remediation in schools and commercial buildings” “visible contamination that is confirmed by source sampling to be fungal growth is evidence of indoor contamination”.



## AIRBORNE FUNGAL SPORES SAMPLING:

Sampling for airborne fungal spores was conducted using a calibrated SKC Quick take 15 pump and an air-o-cell sampler cassette manufactured by Zefon international. A total Sixteen airborne samples labeled AOC-1 thru AOC-16 were secured from within the breathing zones. Samples were collected from the inside as well as the outdoors the hotel for comparison purposes. All samples were submitted to Dove Environmental for analysis. Dove Environmental is an active participant in the environmental microbiological proficiency analytical testing (EMPAT) program sponsored by the American Industrial Hygiene Association (AIHA).

Elevated indoor mold amplification was detected in the samples collected. A copy of the laboratory test results included in the appendix.

Since there are no generally accepted guidelines for fungi and bacteria; comparison of indoor to outdoor samples is the most useful approach. In general, indoor fungal concentration should be similar to or lower than outdoor levels.

The test results indicated that the average total fungal structure concentrations are quantitatively and qualitatively higher in the indoor than the outdoor samples.



## CONCLUSIONS AND RECOMMENDATIONS

Based on our visual site inspection, moisture survey, thermal assessment, and microbiological sampling and analysis of tape lift and airborne fungal spores, it is our professional opinion that mold amplification was identified at the site at the time of our investigation.

As recommended by the 2008 New York City Department of Health or the 2001 EPA guidelines for assessment and control of mold; all porous building material with water damage or visible mold should be removed. Any other material containing visible growth that becomes evident during the abatement work must also be removed. All work shall be conducted by an abatement contractor, experienced in handling microbial abatement projects in compliance with NYCHD and EPA guidelines.

- Recurrent moisture intrusion will result in return of microbial growth; therefore, replacement of abated materials should not be undertaken until the sources of moisture intrusion have been identified and eliminated (ie: ponding water, roofing, insulation, windows bathroom vents, etc...).

We recommend that professionals in the appropriate building trades (roofer, waterproofing contractor's plumber, A/C, fenestration, etc...) be contacted to fix the moisture intrusion and warrant against further damage prior to replacing the abated materials.



Therefore; the following are our recommendations for a comprehensive remediation that will address immediate problems and long term prevention:

Exterior Work:

- Repair all exterior stucco & seal appropriately
- Remove all leaves from roof tops.

Interior Work:

- Address moisture intrusion by providing enclosure to lobby and staircase.
- Remove carpet from hallways.
- Clean A/C ducts units.
- Remove all mold affected ceilings in bathrooms.
- Vacuum and clean all interior surfaces. Wipe down all interior walls, A/C and A/C ducts and ceiling surfaces using fungicide cleaners. All work must be performed by a Florida licensed mold remediation contractor.
- Replace all construction materials.



## LIMITATIONS:

This activity was not designed to discover all areas which may be affected by mold growth on the property. Rather, it is intended to give the client an indication if significant (based on observed areas) mold growth is present at the property. Additional areas of mold not observed as part of this limited assessment, possibly in pipe chases, HVAC systems, and behind enclosed walls and ceilings, may be present on the property.

The results of our inspection are limited; in that it represents airborne conditions only at the time testing and sampling occurred. These results are time and sample dependent since conditions are continuously changing. Environmental conditions and regulations are subject to constant change and re-interpretation. One should not assume that any on site conditions and / or regulatory statutes or rules would remain constant in the future, after DEC has completed the scope of work for this project. DEC cannot guarantee and does not warranty that this mold assessment has revealed all adverse environmental conditions affecting the site. This report should not be relied on to represent conditions at other locations, times and dates.

This report was prepared under a contract with INFINITY REAL ESTATE, LLC. This report cannot be used by any other entity without our expressed written authorization; Dynatech Engineering Corp. (DEC) reserves the right to supplement this report if more information and/or further issues are discovered.

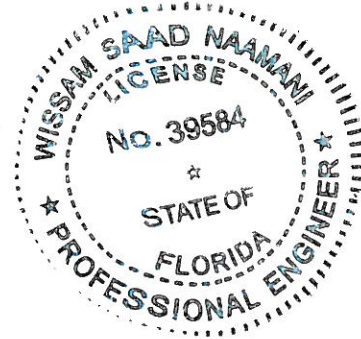


It has been a pleasure working with you and look forward to do so in the near future. Please feel free to contact us if we may be of further service to you.

Sincerely yours,



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## **APPENDIX**

## **LABORATORY RESULTS**