

91

BOROSCOPIC INSPECTION REPORT

PHASE 4

**25 SIGOURNEY STREET
HARTFORD, CT**

**PREPARED FOR
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS
FACILITIES MANAGEMENT
165 CAPITOL AVENUE
HARTFORD, CT 06106**

OCTOBER 23, 2002

PREPARED BY

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PURPOSE OF REPORT

The State of Connecticut has been undergoing envelope repair to 25 Sigourney Street ever since its acquisition of the building 6 years ago. Leaks have been reported through the fenestration system and the brick system which may have subsequently produced mold. In the year 2,000, the State remediated the mold in some locations of the building. Still, Indoor Air Quality health related complaints were received from workers in some parts of the building. The State prepared a more extensive envelope repair and mold remediation project which is being performed at this time. Still, Indoor Air Quality health related complaints were registered. While the envelope repair and mold remediation project was addressing known points of water infiltration and visible mold, the State Department of Public Works Facilities Management Office was concerned that water may have infiltrated other points in the envelope or in bathroom chases that was not visible and should be remediated while this project is underway. That Office contracted with EnviroMed Services, Inc. an environmental consulting company, to arrange for boroscopic inspections in other locations in the perimeter walls and in toilet chases not being addressed in the remediation contract. EnviroMed Services, Inc. contracted with Air Technology, Inc. to perform the technical boroscopic inspections while EnviroMed Services, Inc. would oversee the findings. This was done for Phases one, two and three. 98 locations were investigated in Phase one of this work. A report of those findings was delivered on September 10th, 2002. The second Phase of that work, an additional 84 locations, was delivered on September 25th, 2002. The third phase of the work, an additional 50 locations, performed on October 17th, 2002 was written on October 22nd and delivered to EnviroMed Services, Inc. on October 23rd. This is the fourth phase of the work, contracted directly with the CT DPW, and performed on October 18th. This phase was devoted to inspecting toilet locations. A total of 66 locations were inspected. This is the report of phase four.

BUILDING DESCRIPTION

1. The building is a seventeen year old 20 story high rise structure. It has building code classification of IB Protected. To get that fire resistance rating, the structure is reinforced concrete and the remaining envelope is made of masonry. The envelope is brick faced. Generally, that means the construction cross section is, from the inside out, gypsum board on metal studs or channels, on reinforced concrete or concrete block, rigid insulation, air space, and 4" of face brick. There is substantial glass on the exterior in aluminum casings abutting the masonry. There are balconies on the 19th, 18th and 17th floors.

2.. The 20th floor is a penthouse of approximately 40% of the area of a typical floor. Floors 19 thru 6 are typical office floors. Floor 5 is a mezzanine floor with some offices, cafeteria and garage space. Floor 4 has the entry level with some office, retail and garage space. Floors 3 to 1 are garage levels.

INVESTIGATION PROCEDURE PHASE 4

1. The State Department of Public Works Facilities Management Office designated one of their technicians to identify where they wanted boroscopic inspections in the toilet areas.
2. A team from ATI, composed of the same technicians that performed Phases 1, 2 and 3 went back to the building Friday October 18th. They were accompanied by this agent from DPW Facilities Department.
3. The team investigate from the 19th floor down. Work began on the 19th floor. It then went to the 18th floor, 17th floor, 16th floor, 12th floor, 11th floor, 10th floor, 9th floor, 8th floor, 7th floor, and 6th floor.
4. The ATI technician inserted a new type of boroscope in a 1 1/2" hole he created and performed the inspection. Suspicious materials were defined as water staining, rust or corrosion, or spotting which could be mold.
5. These probes were recorded in a video for future confirmation. The location # and floor were written on a tape above the hole. This was videoed before the boroscope was inserted. The video should be paused to get a good view of this and for viewing suspicious materials. The video will now be available for a record of what was found.

INVESTIGATION PROCEEDINGS

No drawings are included in this phase as the location description more clearly identifies where the probe was taken. The letter D after the location # will designate Phase 4.

19TH FLOOR

LOCATION #1D: This is in Ladies Room above the back splash of the lavatories. Area was clean with dense fiberglass packed in between the studs.

LOCATION #2D: This is in Ladies Room where mold is visible on exterior of gypsum board. Concrete was too close to see interior of gypsum board but fiberglass has black spots which indicates probability of mold.

LOCATION #3D: This is in Ladies Room by the toilets. Areas were clean.

LOCATION #4D: This is in Men's Room by the urinal. Area was too tight to maneuver the boroscope but suspicious material on insulation was seen. Mold was seen on exterior of gypsum board.

LOCATION #5D: This is in Men's Room below the back sink. Interior of gypsum board has water damage and fiberglass indicates probability of mold.

LOCATION #6D: This is in Men's Room by the toilets. Areas were clean.

18TH FLOOR

LOCATION #7D: This is in Ladies Room above the back splash of the lavatories. Area was clean.

LOCATION #8D: This is in Ladies Room below the sink where black staining is visible on exterior of gypsum board. Interior of gypsum board had suspicious black spots as does the fiberglass which indicates probability of mold.

LOCATION #9D: This is in Ladies Room by the toilets. Areas were clean.

LOCATION #10D: This is in Men's Room by the urinal. Mold was seen on exterior of gypsum board. Interior appeared clean.

LOCATION #11D: This is in Men's Room above the back splash of the sink. Area was clean.

LOCATION #12D: This is in Men's Room below the sink. Areas were clean.

LOCATION #13D: This is in Men's Room below the back sink. Concrete limited view but areas appeared clean.

LOCATION #14D: This is in Men's Room below the back sink. Concrete limited view but areas appeared clean.

17TH FLOOR

LOCATION #15D: This is in Ladies Room above the back splash of the lavatories. Area was clean.

LOCATION #16D: This is in Ladies Room below the sink. The fiberglass looks suspect.

LOCATION #17D: This is in Ladies Room by the toilets. Areas were clean.

LOCATION #18D: This is in Men's Room above the backsplash of the sink. Area was clean.

LOCATION #19D: This is in Men's Room below the sink. Areas were clean.

LOCATION #20D: This is in Men's Room by the urinal. Areas were clean.

LOCATION #21D: This is in Men's Room by the toilet. Areas were clean.

16TH FLOOR

LOCATION #22D: This is in Ladies Room above the back splash of the lavatories. Area was clean.

LOCATION #23D: This is in Ladies Room below the sink. The fiberglass looks suspect.

LOCATION #24D: This is in Ladies Room by the toilets. Areas were clean.

LOCATION #25D: This is in Men's Room by the urinal. Water stains were seen as was possible mold.

LOCATION #26D: This is in Men's Room above the backsplash of the sink. Area was clean.

LOCATION #27D: This is in Men's Room at the middle wall. Mold was found on the gypsum board. Water staining and rust were seen on the studs.

LOCATION #28D: This is in Men's Room by the toilet. Too tight to see.

12TH FLOOR

LOCATION #29D: This is in Ladies Room below the sink. Areas were clean.

LOCATION #30D: This is in Men's Room above the back splash of the lavatories. Area was clean.

LOCATION #31D: This is in Men's Room by the urinal. Mold was seen on both interior walls (2nd wall is likely the janitor's closet wall).

LOCATION #32D: This is in Men's Room below the back sink. Water damage on gypsum board. Black spots seen on insulation.

11TH FLOOR

LOCATION #33D: This is in Ladies Room above the back splash of the lavatories. Rust seen on studs but area was clean.

LOCATION #34D: This is in Ladies Room below the sink. Water stains seen on gypsum board and rust seen on studs.

LOCATION #35D: This is in Men's Room by the urinal. Mold was seen at the bottom of the gypsum board between the studs.

LOCATION #36D: This is in Men's Room below the back sink. Mold seen on gypsum board.

LOCATION #37D: This is in Men's Room by the toilet. Areas were clean.

10TH FLOOR

LOCATION #38D: This is in Ladies Room above the back splash of the lavatories. Area was clean.

LOCATION #39D: This is in Ladies Room below the sink. Area was clean.

LOCATION #40D: This is in Ladies Room by the toilets. Areas were clean.

LOCATION #41D: This is in Men's Room by the urinal. Area was clean.

LOCATION #42D: This is in Men's Room below the back sink. Areas were clean.

LOCATION #43D: This is in Men's Room by the toilet. Suspect black areas were seen on bottom of gypsum board.

9TH FLOOR

LOCATION #44D: This is in Ladies Room above the back splash of the lavatories. Area was clean.

LOCATION #45D: This is in Ladies Room below the sink. Area was clean.

LOCATION #46D: This is in Ladies Room by the toilets. This wall was clean but see #49D comments (seen from here).

LOCATION #47D: This is in Men's Room by the urinal. Water staining seen on gypsum board below.

LOCATION #48D: This is in Men's Room below the back sink. Areas were clean.

LOCATION #49D: This is in Men's Room by the toilet. Mold was seen on the bottom of the wall.

8TH FLOOR

LOCATION #50D: This is in Ladies Room above the back splash of the lavatories. Area was clean.

LOCATION #51D: This is in Ladies Room below the sink. Water staining seen on 1 face of gypsum board and mold on other.

LOCATION #52D: This is in Ladies Room by the toilets. Area was clean.

LOCATION #53D: This is in Men's Room by the urinal. Area was clean.

LOCATION #54D: This is in Men's Room below the back sink. Mold was seen along bottom of gypsum board wall (see #51D)

LOCATION #55D: This is in Men's Room by the toilet. Water staining was seen on the bottom of the wall.

7TH FLOOR

LOCATION #56D: This is in Ladies Room above the back splash of the lavatories. Area was clean. ✓

LOCATION #57D: This is in Ladies Room below the sink. Area was clean. ✓

LOCATION #58D: This is in Ladies Room by the toilets. Areas were clean. ✓

LOCATION #59D: This is in Men's Room by the urinal. Mold was seen at the bottom of the gypsum board, stud to stud. ✓

LOCATION #60D: This is in Men's Room below the back sink. Areas were clean. ✓

LOCATION #61D: This is in Men's Room by the toilet. Areas were clean.

6TH FLOOR

LOCATION #62D: This is in Ladies Room below the sink. Area was clean.

LOCATION #63D: This is in Ladies Room by the toilets. Areas were clean.

LOCATION #64D: This is in Men's Room by the urinal. Mold was seen on the gypsum board. Heavy debris seen as well.

LOCATION #65D: This is in Men's Room below the back sink. Too tight to view.

LOCATION #66D: This is in Men's Room by the toilet. Areas were clean.

DETERMINANTS TO RECOMMENDATIONS

1. The method of doing this study was through a boroscope connected to a video. All the results indicated above can be verified or challenged by the video itself which accompanies this report.
2. If water staining, suspicious black material or obvious mold is found through the probes, our recommendation is to remove the gypsum board and remediate the wall (**Recommendation A**).
3. If we see no evidence of water infiltration, then we recommend nothing more be done to this wall (**Recommendation B**).

RECOMMENDATIONS

RECOMMENDATION A (Remove the gypsum board and remediate the wall without further investigation)

LOCATION 2D, LOCATION 4D, LOCATION 5D, LOCATION 8D, LOCATION 10D, LOCATION 16D, LOCATION 25D, LOCATION 27D, LOCATION 31D, LOCATION 32D, LOCATION 34D, LOCATION 35D, LOCATION 36D, LOCATION 43D, LOCATION 47D, LOCATION 49D, LOCATION 51D, LOCATION 54D, LOCATION 55D, LOCATION 59D, and LOCATION 64D.

RECOMMENDATION B (Nothing more be done at this location).

LOCATION 1D, LOCATION 3D, LOCATION 6D, LOCATION 7D, LOCATION 9D, LOCATION 11D, LOCATION 12D, LOCATION 13D, LOCATION 14D, LOCATION 15D, LOCATION 17D, LOCATION 18D, LOCATION 19D, LOCATION 20D, LOCATION 21D, LOCATION 22D, LOCATION 23D, LOCATION 24D, LOCATION 26D, LOCATION 28D, LOCATION 29D, LOCATION 30D, LOCATION 33D, LOCATION 37D, LOCATION 38D, LOCATION 39D, LOCATION 40D, LOCATION 41D, LOCATION 42D, LOCATION 44D, LOCATION 45D, LOCATION 46D, LOCATION 48D, LOCATION 50D, LOCATION 52D, LOCATION 53D, LOCATION 56D, LOCATION 57D, LOCATION 58D, LOCATION 60D, LOCATION 61D, LOCATION 62D, LOCATION 63D, LOCATION 65D, and , LOCATION 66D.