



HOGAN ASSOCIATES
Building & Environmental Consultants

Commercial Property Inspection

Prepared for:

Mr. John Smith
123 Main Street
City, MA

Subject Property Location:

325 North Main Street
City, MA

Inspection Date:

January 26, 2012



HOGAN ASSOCIATES
Building & Environmental Consultants

January 28, 2012

Mr. John Smith
E-Mail

Re: Commercial Property Inspection
325 North Main Street
City, MA

Dear Mr. Smith:

At your request, a visual inspection of specific components of the commercial building located at 325 North Main Street, City, MA was conducted on January 26, 2012.

The inspection was limited to observing major components and systems of the property. It is our intent to provide you with a listing of our observations of conditions requiring repair, replacement, or further evaluation to these major components. Our intention was to provide you with information which would be overview in nature and helpful for your pre-purchase considerations. Enclosed in this report is more detailed information on the scope and purpose of this inspection.

Thank you for asking Hogan Associates to perform this building survey for you. If you have any questions regarding this inspection, please contact me at (508) 865-4360.

Very truly yours,

Hogan Associates

Joe Hogan
Principal Consultant

P.O. Box 426,
Sutton, MA 01590
(508) 865-4360

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Table 1-1 Condition and Life Expectancy of Major Components

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1.0 Executive Summary



Subject property, front side

Background

The property surveyed is a commercial office/industrial/manufacturing building containing approximately 35,000 total square feet. The building is currently vacant and was last vacated approximately 1 year ago. The building was constructed in 1985 according to the listing broker information. Mr. Peter Smith (ABC Commercial Real Estate) and Mr. Smith (maintenance supervisor) answered questions, provided information related to the building, and provided access to the building.

Findings

Basic construction consists of a reinforced slab-on-grade concrete foundation and floor, masonry block walls, steel columns, steel roof joists and a low slope single ply EPDM membrane roof covering. The basic construction of this building compares average to similar buildings inspected by our firm. However, our observations indicate moderate to significant deferred maintenance, defects present, and depreciated components subsequent to original construction. Primary areas of deferred maintenance include the asphalt parking lot, windows, 1st floor electrical, HVAC equipment, interior components, and life/safety components.

Conclusions

It is necessary and we recommend that you consult with professionals, repair contractors, service companies, and others to provide adequate analysis, cost estimates, and specifications for exact nature and scope of required repairs as pointed out above and other repairs or replacement which may be required as determined through further investigation or the performing of work in progress, and to acquire firm bids for making such repairs. The above inspection findings along with other deferred maintenance items, defects, and depreciated items at the subject property are further discussed followed by conclusions with suggested actions in the appropriate sections of the report which require repair, replacement, or further evaluation of components.

Table 1-1 indicates the general condition of major components and infrastructure on the property with remaining estimated useful life expectancies in years. The estimated remaining life expectancies will be influenced by current and future maintenance, repairs, improvements, and management of components on the Property. The following terms are used for the ratings and are defined as follows:

Good: Average to above-average condition for the building system or material assessed, with consideration of its age, design, and geographical location. Generally, other than normal maintenance, no work is recommended or required.

Fair: Average condition for the building system evaluated. Satisfactory, however some short term and/or immediate attention is required or recommended, primarily due to the normal aging and wear of the building system, to return the system to a good condition.

Poor: Below average condition for the building system evaluated. Requires immediate repair, significant work or replacement anticipated to return the building system or material to an acceptable condition.

Table 1-1: Conditions and Remaining Useful Life Expectancy of Major Systems

Component	Condition	Remaining Useful Life	Comments
Sitework	Fair	2-3 years	Deteriorated asphalt, major cracking, imp grading-rear
Roof	Fair-Good	10-13 years	Three stages of roof replacement drainage requires repairs
Exterior	Poor	1 year	Windows are unsatisfactory, deteriorated, improper flashing, leaking windows,
Structure	Good	25-35 years	Monitor, normal maintenance, some corrosion on steel decking,
Plumbing	Fair	5-10 years	Bathroom fixtures unsatisfactory, leaking main water shutoff, corroded drainpipes
Electric	Fair	1-5 years	Open junctions, open raceways, improperly wire and labeled sub panels, Fed Pacific switchgear 1 st floor
HVAC	Poor	1 year	7 RTUs are fully depreciated, deferred maintenance, expect replacement of units soon
Interior	Poor	0 years	Carpets, VCT, walls, and ceilings require repair and replacement
Life/Safety	Fair	1 year	Sprinkler heads recalled models, alarm system is older No records available

2.0 Scope

Purpose

The purpose of our inspection was to perform a visual survey of specific components of the construction of this property and list our observations of items and conditions which indicate the need for immediate and intermediate repair, replacement, or further evaluation of major components subsequent to original construction of the property.

Our intent has been to apprise you of the general condition of the property and to provide information which can be helpful to you in your budgeting and pre-purchase considerations as it relates to the physical condition of this property. This inspection is intended to provide information which is overview in nature.

Our inspection and this inspection report are intended as confidential to you, for your exclusive use. They cannot be relied upon by a third party or third parties which shall include for example, but not limited to: future owners, prospective, current, or past purchasers, tenants, and service or repair companies.

Scope

The scope of our survey was limited to visual observations of the following specific components of the building: foundation, load-bearing structural framing, roof surface, building shell, sitework, HVAC equipment, electrical supply components, interior, and life/safety components only.

Our observations were limited to those components that were safely accessible and readily visible without moving or removing any items causing visual obstruction, such as furnishings, vegetation, walls, manufacturing equipment, insulation, and stored items, etc. Electrical and mechanical components were observed visually; they were not disassembled. Functional equipment was operated with user controls. Mechanical systems which were shut down at the time of the inspection were not operated.

3.0 Sitework

Description of Sitework

Sitework components observed during the survey included one asphalt parking lot at the front side of the building and one parking lot at the rear side of the building. Two asphalt entrance driveways are present at both the left and right sides of the building for access to the rear side. Total area of asphalt surfaces surveyed for this building was approximately 80,000 s.f. Approximately 180 lined parking spaces are provided for the building. No handicap accessible parking was provided.

Storm water drainage for the impervious asphalt surfaces for the front side of the building is by positive grading and gravity run-off towards Main Street. No catch basins with subsurface drainage were observed at the front side, although some snow on the perimeter of the parking areas limited visual access. Storm water drainage for the rear side parking lot is primarily by gravity to a rear right side located swale where water is directed toward the rear side pond. A smaller portion of the rear side stormwater is directed toward one catch basin with subsurface drain, likely discharging to the rear side of the property.

One concrete retaining wall is present at the left side of the building for one loading dock area. One smaller concrete retaining wall is also located at the right side of the building.

One metal chain link fence is located at the left side of the building surrounding the loading dock area and one metal chain link fence at the rear right side of the building enclosing a concrete slab. Exterior site lighting is provided by wall mounted flood lights.

Observations, Conclusions, & Suggested Actions

- The asphalt parking lots and driveways have significant deterioration of asphalt with heavy cracking and minor heaving. The parking lots have been recently crack sealed, seal coated, and line painting. However, due to the numerous areas of deterioration and cracking throughout the asphalt, obvious prior deferred maintenance was observed with sealcoating and crack sealing. The estimated remaining useful life of the asphalt is 2-3 years.
- Storm water drainage appears to be satisfactory. According to Mr. Smith, one of the point of contacts, no standing water, puddling, poor erosion concerns are present for the property. Several catch basins had observed dirt and debris inside the catch basins. Recommend cleaning out catch basins and rear side swale for proper drainage.

- Several small areas of negative drainage are present at the rear side of the building where water fails to be directed away from the building causing water intrusion and seepage inside the building. One area of improper negative drainage was also observed at the right side of the building where water fails to be directed away from the building. Windows are also too close to the ground in this area causing water intrusion into the building. Recommend created positive drainage in these areas.
- The metal chain link fences at both areas of the property have minor damage to the fences and are improperly secured to posts. The right side rear gate is missing a post to secure the gate. Recommend repair fences and gate as needed.
- Trees and vegetation at the left side of the building are overgrown and touching the building. Roots are encroaching too close to the foundation. Recommend cutting back vegetation in this area.
- The left side concrete retaining wall has some cracking observed. The cracks appear to be minor, recommend sealing. The drain pipes behind the concrete wall at the left side loading dock area were filled with dirt and may impede the drainage of the rear side of the wall. Recommend clearing drains.
- Although flood lights are present on the exterior of the building, parking areas away from the building are likely too dark. Recommend installing several perimeter parking lot commercial grade exterior lighting.

4.0 Roof & Exterior

Description of Exterior

The roof covering of the subject building is a single ply EPDM 60 mil. membrane. The membrane is covered in stone ballast which secures the membrane to the roof and is mechanically attached around the perimeter of the building. Insulation is present beneath the membrane but was not visible. Four centrally located roof drains were present with internal piping for discharge of roof drainage water. The roof has several pitches to direct water into the drains. The roof was observed from walking the top of the roof. The age of the roof appears to be in three separate stages with the oldest section installed in 2001 and most recent in 2005 based on interviews with the point of contact and serial numbers on the roofing membranes. Although requested, no records of installation, roofing contractor, or warranty information was available for review.

Cladding material for the building is masonry blocks. No building plans were available for review. Approximately 90 windows present for the subject building. The windows are aluminum framed casement style insulated sliding windows.

Two sets of glass entry doors are located at the front and rear side of the building. One set of concrete stairs are present at all four exterior entry doors. Five manually operated overhead metal doors are present at the subject building. One covered loading dock area is present at the left side of the building.

Observations, Conclusions, & Suggested Actions

- The overall condition of the roof surface was in serviceable condition. However, some minor deterioration and blistering of the membrane was observed on the 2001 installed section of roof. One area on the left side of the roof had some standing water and improper drainage present. The condition appeared to be minor. Some improperly secured coping at the rear side of the building was also observed. No uneven distribution of stone ballast was observed, however, the ballast does not cover the entire edges of the roof to the gravel stop. No obvious signs of shrinkage, tears, or blistering of the membrane was observed in accessible areas.

Based on conversations with the point of contact Mr. Smith, no roof leaks or roof problems were reported. Given the fact no documentation or contractor information is available for the roof installation and materials, it should be assumed no warranty or future warranty servicing is available for the entire roof. Remaining useful life of the roof is expected to be 10-13 years with ongoing roof maintenance, inspections, and necessary repairs.

- The windows for this building are deteriorated and have water leakage which was observed from both interior and exterior of the building. Corrosion of lintels and cracking of masonry was observed around many of the windows. Many windows have broken seals with interior condensation within the thermal panes. Voids, improper flashing, deteriorated caulking and sealants with obvious signs of moisture intrusion were observed. Flashings were poorly installed at original construction and may require major repairs or replacement for correction. Short term caulking and sealants should be applied to prevent water intrusion. Long term proper correction of these conditions for flashing materials will require removal of materials to basic construction and re-installing new windows.
- The front left glass entrance door does not properly shut. The closing piston mechanism is defective. The rear left glass entrance door is difficult to open and close and rubs on the ground. Recommend repair doors. The rear left glass entrance door and interior door are not ADA accessible. The entire building is not ADA compliant for many areas and components of the building. Future use of the building may also require vertical transportation such as an elevator. Recommend complete ADA assessment to determine future use requirements.
- The front left concrete stairs have a missing handrail and is a safety hazard. The front left and right stairs along with both rear side concrete stairs demonstrate beginning stages of spalling, cracking, and deterioration of the concrete. Repairs should be conducted to all four stairs in order to mitigate the deterioration of the stairs.

5.0 Structure

Description of Structure

The foundation for supporting partitions, perimeter walls, etc, is a reinforced concrete slab-on-grade with concrete footings below structural steel columns. Walls are concrete block masonry units. Floor is poured concrete. The primary load-carrying structural framing for this building is constructed of structural steel beams and columns which support steel joists for the roof framing system. Vertical loads are transferred through steel columns and exterior walls to the foundation footings.

Observations, Conclusions, & Suggested Actions

- Cracking of the concrete slab was observed at the rear side warehouse area. The cracking appeared to be related to differential movement of the foundation slab due to supporting soil and to possible loading conditions subsequent to original construction. The degree was moderate.
- The surface of the slab at the rear side warehouse section of the building was significantly pitted due to ram set type application to a previous grid of some type which is visible over the surface of the floor. Additionally, anchor bolts inserted within the concrete were severed off at or near the surface level of the slab. As discussed at the time of the inspection, it is suggested that sample cores be taken of the concrete to determine its thickness, strength, and hardness as it relates to your intended functions of the building and to normal standards of construction.
- We did not observe conditions indicating that the primary structural steel framing or concrete foundation of the building is in need of immediate repair or that is not performing its intended function.

6.0 Plumbing

Description of Plumbing

The building is serviced with municipal water and sewer service. Two separate main potable water services with meters are. The main water shutoffs and water meters are located at the left rear side of the building inside a utility room. Water supply pipes are made of copper. Drain pipes are cast iron and PVC.

Four sets of men's and women's bathrooms are present in the building with two sets on each floor above one another. Each bathroom contains two sinks and three toilets each. Several kitchen sinks and production sinks were present in the building. One 40 gal electric hot water tank was present on the 1st floor and several small 10 gal. Electric hot water tanks are located above the ceiling areas in bathrooms. A wet fire sprinkler system main valve and controls for the building is located in the main water supply room and further discussed in Section 9.

Observations, Conclusions, & Suggested Actions

- The main water supply shut-off valve was leaking at the time of the inspection. A licensed plumber is recommended to immediately repair the valve.
- Improperly installed installed 4" PVC vent pipes were observed on the roof (they were not anchored).
- Bathrooms were observed to have miscellaneous deferred maintenance conditions to fixtures and other damage including: flush valves, loose water closets, one cracked and one missing sink.
- Several water heaters were observed to original and some were missing. All of the original water heater equipment is nearing the end of its expected useful life. Replacement of water heaters should be expected soon.
- One floor drain and sump plumbing component on the 1st floor rear right side of the building was observed with excessive corrosion which has deteriorated the drain pipes. The corrosion was most likely a result of previous manufacturing activities and corrosive chemicals used.

7.0 Electrical

Description of Electrical

Electrical power is provided by National Grid from a vault located at the lower front section of the property. Electrical power is provided to a 5,000 amp bussway located at the main switching gear in the lower level front side mechanical room. The voltage is 277/480, 3 phase, 4-wire. The main 5,000 amp bussway directly serves an 800 amp, 277/40, 3 phase, 4 wire control panel for the elevator and emergency lighting and power panels through the automatic transfer switch. This automatic transfer switch is also connected directly to the emergency generator.

Power for the remainder of the building is provided from two main vertical riser bussways for the HVAC equipment and the rear side mechanical room equipment, including chillers, pump motors, cooling tower motors, and fan motors for air handlers. Electrical distribution sub panels are located throughout the building. Sub feeder and interior branch circuits were observed to be copper. Many of the 2nd floor components are more recent and updated electrical supply equipment.

There is an emergency generator located at the rear side of the building. The generator provides emergency back-up power to the emergency switches and lighting panel. The generator has a capacity of 376 amps at 277/480 volts.

Lighting is provided as follows: ceiling lights are 277 volt fluorescent lights with parabolic reflectors, overhead lights at office areas are a combination of incandescent and fluorescent lights, and emergency lighting is provided at hallways within office areas.

Observations, Conclusions, & Suggested Actions

- Lights were observed to be flickering and circuit breakers are reported to be tripping on a re-occurring basis by occupants on the second floor (Smith Company). A licensed electrician is recommended to further assess the conditions at this time.
- A number of deferred maintenance items were observed including: some open neutrals on the second floor office space, non-functional circuit breakers, areas where lighting and switching power have been turned off at the circuit breaker, some open junction boxes in the warehouse area of the building, improper termination of wiring in ceiling cavities, and other similar conditions. It is pointed out that these deferred maintenance items are not uncommon to observed

in a building such as this. They do however, require immediate repairs due to the serious nature of the electrical hazards.

8.0 HVAC

Description of HVAC

Heating and cooling is provided to the entire 2nd floor and portions of the front side of the 1st floor of the building by nine combination package unit (rooftop unit, RTU) with refrigerant type cooling, gas fired furnace for heating, air handler with fans, and ventilation with air filters. Additional cooling is provided by three rooftop mounted air conditioning units with evaporative coolers with refrigerant cooling, fans, filters and ventilation. Air conditioning was not operated due to the cold outdoor temperatures.

Conditioned air is supplied with flexible ducts above the ceiling to outlet ceiling registers. The return air is from ceiling grills through large ducts directly to the return intake side of the RTUs. Temperature control was by low voltage electric thermostats. Table 8-1 present the models, age, and tonnage of cooling capacity for each RTU.

Heating is provided to the 1st floor manufacturing areas by 4 gas-fired propeller fan unit Resnor heaters. The unit heaters are fastened and secured to the ceiling with blown air directed downwards. Each unit is controlled by separate thermostats.

Five roof mounted exhaust fans are present for the manufacturing area of the building. The fans were not operated. CFM capacity or make and model numbers were not accessible for the fans as the tags were worn off and not viable.

Table 8-1 HVAC RTUS

Manufacturer	Cool Capacity, (tons)	Type	Model #	Serial #	Age (yrs)
Bryant	10	RTU heat-AC	580DEV120220	3394630926	18
Rheem	10	RTU heat-AC	Tag worn off	Tag worn off	18+
Bryant	12	RTU heat-AC	580FEV121224	0605620514	6
Bryant	20	RTU-AC only	558fpy120000	1803611236	8
Bryant	20	RTU-AC only	558fpy120000	0604620610	7
Bryant	10	RTU heat-AC	580DEV120220	3394630927	18
Bryant	10	RTU heat-AC	580DEV120220	3394630928	18
Bryant	10	RTU heat-AC	580DEV120220	3394630925	18
Bryant	12	RTU heat-AC	580DEV120220	3394630931	18
Carrier	20	RTU AC only	50TJ02467oYA	3394630900	6
Bryant	12	RTU heat-AC	580DEV120220	3494630078	18
Bryant	12	RTU heat-AC	580FEV121224	1305611515	6

Observations, Conclusions, & Suggested Actions

- All twelve RTUs units are past their warranty period. Seven of the RTUs are past their expected useful life (typically 15-17 years) and replacement of these seven units should be anticipated within the next 1-2 years. This cost would be considered significant.
- Although requested, no preventative maintenance or repair records or logs were available for HVAC equipment. Based on interviews with Mr. Smith, maintenance supervisor, all HVAC equipment is serviced on a biannual basis. However, based upon visual inspection of ceiling supply ducts and registers, excessive amounts of dirt and dust was observed indicating filter change frequency may be insufficient and possible deferred maintenance with the units.
- Several observed ceiling mounted flexible ducts were improperly secured and supported and disconnected from the plenums.
- All four of the 1st floor gas fired Resnor ceiling unit heaters are 1985 units and are past their expected useful life (approx 20 years). Replacement of these units should be anticipated soon.
- Discussions with occupants of the building at the time of the survey indicated that major problems exist with the heating, ventilation, and air conditioning systems at this time, with most of the systems being marginal with regard to providing adequate heating and cooling.
- It is a routine recommendation and, in our opinion, necessary to perform a general servicing of all the HVAC equipment prior to assuming responsibility for operating condition and maintenance of the equipment. The depreciated components and deferred maintenance items described in our observations above should be considered along with any other conditions observed during the course of performing routine service checks including using instrumentation for pressure and amperage checks along with filter changes, belts, cleaning, coil cleaning, inspection, air flow and distribution, heat exchanger inspection, etc.

9.0 Interior

Interior components inspected were floors, walls, ceilings, drop ceilings, interior doors, windows, and insulation.

Observations, Conclusions, & Suggested Actions

- Visible mold was observed on the entire 1st floor rear side walls of the building. The walls were wet or damp on moisture meter readings from seepage and water intrusion as described in this report. Recommend professional mold remediation in accordance with IICRC S520 Guidelines for Mold Remediation and removal of all wallboard and insulation on this wall.
- Numerous ceiling tiles throughout the building were missing, improperly secured and supported, water stained, and damaged. The conditions were most notable for the first floor, however some improper conditions were also present on the second floor. Recommend repair or replace all components associated with ceiling defects.
- Interior walls on the first floor had excessive and significant damage, holes, and cracks of wallboard material. Recommend repair or replace all areas of damaged walls.
- The vinyl composite flooring tiles on the first floor were severely cracked, damaged, and missing in many areas. Second floor tiles showed signs of curling, and lifting. Carpeting in many areas was worn out and may require replacement soon. Recommend repair or replace all flooring as needed.

10.0 Life/Safety

Life/safety components inspected include the wet fire sprinkler system, fire extinguishers, egress, emergency lighting, and exit signs. The fire alarm main panel is located at the front left door entrance. A fire hydrant is present at the front side exterior of the building.

Observations, Conclusions, & Suggested Actions

- The fire alarm system appears to be the original system with several updated components. Recommend complete inspection, assessment, and testing of the fire alarm system by a qualified professional. The main panel may need to be updated due to the age of the system. Although requested, no records of maintenance or inspections were available or present for the fire alarm.
- The sprinkler system heads were by several different manufacturers and dates and types were different on several sprinkler heads inspected. Several spinkelr heads are recalled models and may fail to operate. The last inspection and testing of the system indicated 2009 on the main control valve near the water main. The main sprinkler valve alarm wing was also disconnected. Recommend complete inspection, testing, and evaluation of the entire wet sprinkler system by a qualified professional.
- The main fire control valve in the rear side mechanical room was improperly installed and wired. He valve may not operated in a fire. Recommend immediate service to the fire control valve.
- Illuminated exit sings were present in the building, however, several illuminated exit signs were missing. Recommend install missing necessary signs.
- No inspection logs or tags were present on the emergency lights. Some lights were original equipment. Recommend testing of all emergency lighting.
- Fire extinguisher inspections revealed last inspection in 2009. Recommend inspection and testing, and location for all fire extinguishers.
- Posted emergency evacuation plans were missing throughout the building. Recommend installed necessary posted maps and plans.

11.0 Limitations

Specific components of the construction of this property which were not surveyed include, but not limited to: fire suppression and sprinkler performance, alarms, smoke detectors, performance, hoses, decorative landscaping; specific septic system and sewage components, interior furnishings; security equipment; geological faults,; noise or air pollution; legal description of property such as boundaries, easements, right-of-way, and setbacks, egress/ingress etc.; conformance with government codes or any state or local building codes; future renovation or tenant future requirements, future use of building and associated requirements, future renovations, electrical and mechanical sizing or engineering, environmental assessment, environmental regulations or any possible environmental contamination, manufacturers specifications; and legal requirements of all kinds such as the Americans with Disabilities Act and other specific or general property or area conditions not stated specifically to be included in our survey.

It is necessary and we recommend, that you consult with service companies and repair contractors in respective categories included in this inspection report to determine the exact scope and cost of work, submit firm bids for making required corrections, and any future use requirements for use of the building. All quantities and components identified in this report whether used as a basis for developing expected future costs or for other purposes are only approximate and cannot be relied upon as exact.

Our efforts in performing this survey have been confined to problem identification. We have not analyzed the design of the building or mechanical systems, determined exact nature and scope of repairs, determined as-built construction to be in conformance with plans or specifications, nor have we determined whether or not the construction is in strict compliance with governing codes at this specific location or in the general area.

Disclaimers

Opinions and comments stated in this report are based solely on observations of apparent performance. Performance standards are based exclusively on the knowledge and experience of the inspector at Hogan Associates. Neither our inspection company survey nor our inspection report constitutes a guarantee or warranty, expressed or implied, on the condition or future condition of the property or any component surveyed. Hogan Associates is not an insuring company, and our inspection and inspection report are not warranted for any specific use or merchantability. The opinions and conclusions presented in this report are based on the site conditions observed and information reviewed at the time of this assessment. Information pertaining to site conditions or changes may exist that Hogan Associates is not aware of or which we have not had the opportunity to evaluate within the time available for this assessment.

Please be advised, this is a sample report and sample typical text and documentation only. The specific information in this report may not be applicable to the subject property. This

sample report should not be used for any reliance on any portion or use of any future inspection or report from Hogan Associates.

Appendix

Photographs

SAMPLE