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November 18, 2009

Dean Hofelich
LDa Architecture & Interiors
222 Third Street, Suite 3212
Cambridge, MA 02142

RE: 5 BROAD STREET, SALEM, MA
PRELIMINARY M.E.P. EXISTING CONDITION SURVEY

Dear Dean:

Please see the following observations noted during our site visit at 5 Broad Street on October 13th. 2009.

HVAC Systems

Heating
The system includes an oil fired steam boiler and cast iron radiators. The boiler appears to be approximately 5 years old and should be in good condition. The burner seems to be older unit that was probably removed and reused from the former boiler.

The existing piping system is in poor condition, repairs both large and small are visible throughout. Where the piping is insulated, the insulation is suspected to contain asbestos.

Generally, there is no zoning, the entire building functions as a single zone with the exception of a few radiators that have local thermostatic radiator valves.

System is inefficient and uncomfortable and should be considered for replacement.

Air Conditioning
There is no permanently installed air conditioning to provide cooling. Window air conditioners of various ages, capacities and efficiencies were observed throughout the building.

Ventilation
The building relies on operable windows in an attempt to satisfy the ventilation air requirements for occupancy. Transfer grilles exist at some perimeter offices but have a limited effectiveness to communicate fresh outdoor air from windows to interior spaces.

A ventilation shaft terminating at the cupola and exterior grilles in the brick facade hint to a former school house ventilation system that was probably abandoned in place long ago.

Mechanical ventilation should be provided to support occupancy.

Exhaust

Several bathrooms do not have exhaust fans to provide mechanical exhaust as required by code. In the ground floor men's room a ceiling mounted exhaust fan was installed but the unit appeared to be inoperable.

Mechanical exhaust for bathrooms should be provided.

Cafeteria
Cafeteria equipment consists of commercial electric appliances including warming tray, cold tray, refrigeratators and an electric range. The range does not have an exhaust hood as required by code.

Plumbing
The water piping from the meter is to the building is 1-1/4", this is pipe is undersized by current codes to support flushometer valve operated fixtures.

Domestic hot water is produced by a 30 gallon oil fired water heater. The unit appears to be about five years old and is expected to be in good condition. A domestic hot water return system was not observed and is required to maintain hot water at distant fixtures.

Plumbing fixtures of various ages and types exist throughout the building. Some toilets are flushometer valve operated, others are tank type. Many do not appear to be low volume, water conserving types or handicapped accessible as required.

The building includes a commercial style dishwasher with hooded exhaust and a three bowl sink with grease trap.

Electrical
Power
The electrical service to the building includes an overhead drop from a pole mounted transformer. The main disconnect and main distribution panel are rated at 120V/208V 400 amperes, 3 phase and manufactured by FPE (Federal Pacific Electric). This equipment is obsolete.

Load centers include a mix of circuit breaker type equipment and obsolete fuse type equipment. A mix of wiring methods have been installed as the system has evolved throughout the years.

Any significant upgrade should include replacement of the electrical system.

Lighting
Interior lighting generally includes fluorescent type fixtures. Most fixtures appeared to include relatively inefficient T-12 lamps. However, the lighting fixtures on the third floor offices did have more efficient T-8 lamps. Lighting is operated through manual wall switches, no occupancy sensors or other automatic controls were observed.

Exterior lighting fixtures are inefficient and in poor condition. Wall hung battery pack emergency lights exist to illuminate path of egress. Not all exit signs are the illuminated type as required.

Boiler room lighting was not functional at the time of our visit.

Any significant upgrade should include replacement of the lighting fixtures and controls.

Fire Protection

Fire alarm

Fire alarm system includes a Notifier System 500. This is a conventional (non addressable) system that includes up to 8 zones. Bathrooms did not have notification appliances.

Building upgrades should include replacing this system with an addressable system.

Sprinkler

The building does not have an automatic sprinkler system. Because the building is greater than 12,000 square feet, significant renovation must include installation of an automatic sprinkler system for most use groups.

Sincerely,
for NORIAN/SIANI ENGINEERING, INC.

George Comatas

George Comatas, PE
GC/klk