EXISTING BUILDING REVIEW

127-129 State Street

Name: Frances Vallender Building
Built: 1867

Overview:
Reviews of this building were performed by the following companies:

Building Interior and Exterior	Wiss, Janney, Elstner Associates, Inc
Structural	Pierce Engineers, Inc.
Mechanical, Plumbing, Fire Protection	Henneman Engineering, Inc.
Electrical	Potter Lawson
Asbestos Inspection	Advanced Health & Safety LLC

History:
The Frances Vallendar Building is a flat-iron building at the corner of State Street, West Dayton Street and N. Fairchild Street. There are two retail spaces at grade with one being occupied by Vic's Popcorn. There are two floors above the ground floor retail that is an apartment. The apartment and one of the retail spaces is vacant.

View of Front Facade

Exterior: View of basement access, gas meter and fire escape within the public right-of-way

Exterior: View of damaged brick veneer

Exterior: Entry to apartment on N Fairchild Street

Exterior: View of basement stair access within the public right-of-way

Attic: View toward flat iron corner showing damage to chimney

Attic: View toward wall between 127-129 state street and the castle and doyle building showing significant damage to existing brick

Basement

View of entrance stair access from north Fairchild Street

First Floor Retail

First Floor Retail

First Floor Retail

First Floor Retail

Second Floor Apartment: Living Room

Second Floor Apartment: Kitchen

Second Floor: Mechanical and door to fire escape

Second Floor: Entry stair from first floor showing wood paneling

Second Floor: View of laundry at Flat-Iron building corner

Second Floor Apartment: Living Room

Second Floor: Structural bearing wall between living room and kitchen

Third Floor: Section of exterior wall exposed showing back of brick and moisture within the insulation space

Third Floor: View of bedroom closet at Flat-Iron building corner

Third Floor: Bathroom

Third floor: View down stairs toward the second floor

ENGINEERS
ARCHITECTS
MATERIALS SCIENTISTS

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127–129 State Street – Architectural Review

Walk-Through Observations: December 16, 2011
Reported by: Kenneth M. Itle
WJE No. 2011.5656

This letter summarizes the WJE observations of architectural interior and exterior features of 127–129 State Street, Madison, Wisconsin. The exterior survey was performed from grade and from accessible flat roof areas. The interior survey was conducted in accessible spaces. Additional investigation would be required to develop appropriate repair recommendations.

The building at 127–129 State Street is a three-story masonry structure originally constructed in 1867, per historical research performed by others. Based on the existing appearance of the building, it has been significantly altered since its original construction in the nineteenth century. The building is essentially triangular in plan, with a north-facing State Street facade, a southwest-facing Fairchild Street facade, and an east party wall.

Exterior

All of the exterior walls are load-bearing common brick masonry. Stone is used for window sills. All of the masonry is painted. The State Street facade has two storefronts at the first floor and an unevenly spaced arrangement of six bays with round-arch headed window openings at the second and third floors (Figure 1). The Fairchild Street facade has a more irregular appearance; the location of window and door openings appears to have been significantly altered in the past (Figure 2).

The brick masonry is generally in very poor condition, with extensive previous spalling and erosion of brick faces and open mortar joints. This masonry distress has been exacerbated by the application of multiple coating layers, some of which were applied over unrepaired deteriorated masonry. At many locations, loss of the coating has revealed severe deterioration and disintegration of the underlying brick and mortar (Figure 3 through Figure 6). Near the middle of the Fairchild Street elevation, interior finishes at the first floor had been previously removed, exposing the backup masonry to view. The brickwork at the lowest 30 inches of the wall in this area is severely deteriorated, with deep erosion and deterioration of the brick and mortar (Figure 7).

Portions of the brick masonry adjacent to the storefronts have been covered by a cementitious parge coat. Where sounded with a hammer, the parging appears to be delaminated from the substrate. Based on measurements at door and window openings, the Fairchild Street facade is constructed with only two wythes of masonry, approximately 8 inches thick, and the State Street facade is two wythes or 8 inches in the plane of the wall with three-wythe (12-inch) thick pilasters.

One of the storefronts at State Street is a mid-twentieth century uncoated aluminum-framed single glazed system, while the other storefront is a newer anodized aluminum system with insulating glazing. The upper level windows are wood one-over-one double hung units with three-light transoms, covered by exterior aluminum triple track storm windows. It appears that the existing sash are mid-twentieth century

replacements; the half-round three-light transom sash have different sightlines and may be older than the double hung sash. The windows are in fair condition, with localized wood decay or loss of paint.

The building roof was not accessible for close-up inspection but was viewed from a nearby higher building (Figure 8). The existing roof covering is asphalt shingle that appears relatively new and intact. Along State Street, there is a low parapet wall and built-in gutter lined with EPDM rubber membrane. Along Fairchild Street, there is a hanging galvanized metal gutter. When viewed from below in the building attic, widespread water staining was apparent on the wood framing (Figure 9). Also, debris and remnants of roofing material were scattered over the insulation in the attic. It appears likely that much of the existing staining is from old water leakage that is not currently active, given the apparently good condition of the existing roofing.

Potential Exterior Repairs

The brick masonry has deteriorated over time, and coatings and cementitious parging have been applied to the surface of the wall rather than addressing the underlying masonry distress. The build-up of coating layers has exacerbated and accelerated the deterioration of the brick masonry. Deterioration of the brick and mortar appears to be so widespread that extensive reconstruction of the exterior walls is now required. The quality and condition of the masonry materials appears to be relatively consistent across the facades; therefore, 100 percent replacement of the outer wythe of brick masonry of the facades should be assumed. Since the majority of the exterior walls are only 8 inches thick, reconstruction of the outer wythe only may not be feasible, especially considering the deterioration of the back-up wythe of brick in the portions near grade. Rather, reconstruction of the full thickness of substantial portions or all portions of the wall will likely be necessary. Development of an appropriate approach requires further investigation and coordination with the results of the structural survey recently undertaken by others. Inspection openings should be made to confirm the exact thickness of the wall in various locations and to review the condition of concealed portions of the wall.

The existing windows appear to be low-quality wood replacement sash. Therefore, replacement of the windows for enhanced performance should be considered.

The existing roof system is likely relatively new and intact, based on its appearance as viewed from adjacent buildings, although the perimeter detailing and provisions for drainage should be reviewed in greater detail.

Interior

The first floor interior is divided into two retail small retail spaces. The retail interiors have non-historic finishes including sheet vinyl flooring and carpeting, wood and gypsum board walls, and suspended acoustic tile ceilings (Figure 10). Where the contemporary finishes had been previously removed by others for inspection of the structure, no evidence of underlying historic finishes was observed.

The second and third floors together constitute one three-bedroom rental apartment. The apartment is accessed via a separate entrance vestibule and stair from the south corner of the building on Fairchild Street. The apartment interior finishes include carpeting, sheet vinyl flooring, wood paneling, and gypsum board walls and ceilings (Figure 11). Several inspection openings were made during the site inspection at the exterior walls of the third floor. From interior to exterior, the exterior construction consists of gypsum board supported on 2x4 studs with batt insulation between the studs, installed inside the original brick masonry wall. Previous plaster finishes were observed directly applied to the inside face of the brick masonry. Staining and evidence of moisture penetration was observed on the batt insulation and plaster (Figure 12).

Potential Interior Repairs

None of the existing interior finishes or features is historically significant, and many of the existing materials are in poor condition. Substantial renovation of the interior would be required for reuse.

Figures

Figure 1. Overall view of the State Street facade.

Figure 2. Overall view of the Fairchild Street facade.

Figure 3. Loss of the coating reveals severely deteriorated brick units.

Figure 4. The coating layers were applied over unrepaired deteriorated masonry.

Figure 5. Mortar behind the coating layers is friable and has disintegrated.

Figure 6. Mortar behind the coating layers has disintegrated, resulting in voids within the masonry construction.

Figure 7. Deterioration of the back-up masonry at the interior of the building.

Figure 8. Overview of the roof.

Figure 9. View of the roof framing from the attic.

Figure 10. View of the retail interior at the first floor.

Figure 11. Typical view of the interior of the rental apartment.

Figure 12. Staining and evidence of moisture penetration was observed on the batt insulation and plaster at an inspection opening created at the third floor during the site visit.

PIERCE ENGINEERS, Inc.
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Walk thru Evaluation of 127-129 State Street
Madison, WI
Date of Walk thru 11/18 and 12/3/2011. Date of report 12/7/2011
PE Job #11272

EXECUTIVE SUMMARY

1. Description of Structural System
   a. Foundation Walls. Cut stones mortared
   b. Floor/Roof Construction. Wood joists on masonry bearing walls.
   c. No interior columns.
   d. East wall of 127/129 is shared with 125 State up to the roof of 125.
2. Building Support
   a. The building is supported off the exterior brick walls.
   b. The floors and roof are wood construction with joists bearing into the brick exterior walls. An interior bearing wall runs perpendicular to State Street at roughly mid width of the building.
3. Areas of Compromised Structure
   a. Water infiltration was noted in the basement. Brick damage due to moisture infiltration is noted at the attic at the east gable wall.
   b. Piping revisions over the years have damaged the first floor structure rendering the floor unusable.
4. Floor. Roof Loading
   a. Existing Structure Capacity. First floor live load capacity-none specified, replacement needed. Second floor live load capacity 35 psf. Third floor live load capacity of 45 psf. Roof live load capacity 21 psf.
   b. Proposed use. First Floor-retail requiring 100 psf. Second, third floor-office requiring 65 psf. Roof (snow) required 21 psf no drift.
   c. Existing Use. First Floor-retail requiring 100 psf. Second/third floors-apartments requiring 40 psf. Roof (snow) requiring 21 psf.

GENERAL COMMENTS

The building is three stories with a basement. The building occupies a triangular corner lot at State /Fairchild streets intersection. The first floor is retail and the second and third floors are presently apartments. The building is wood frame with masonry exterior walls. For the purpose of this report east/west is taken paralleling State Street.

BASEMENT

The basement walls are mostly concealed behind plaster. The divider wall to the 125 property is observable behind the electrical panels. Here the cut limestone wall is observable and is roughly 2' thick. The wall itself and its mortar is

eroding witnessed by wall material windrowed along the base. The extent of exposed wall shows it remaining stable at this time. This basement is accessed thru a single entry protruding into Fairchild Street. An interior brick bearing wall runs east/west thru the basement. A poured concrete column is positioned to the south of this wall. This column appears to be more recent construction and is believed to have been placed to resolve a movement issue.

FIRST FLOOR FRAMING

The floor is wood framed. There are two locations where shoring has been added to re-support the floor. The shores bear on wooden boards on the floor with no added footing present and as such should be considered temporary. The floor framing has been modified over the years to accommodate revised plumbing runs. The 2x framing has been cut as needed to allow the piping to pass. There are rotted 2x 's noted near the piping indicating unresolved leaks. No load capacity is assigned to this floor as it has excessive defects and needs to be replaced.

SECOND FLOOR FRAMING

The framing for the second floor was observed from the 129 space. The second floor framing is full size 2x8 @16" oc spanning 17' and paralleling State Street. The calculated live load capacity of the second floor for the noted joists would be 35 psf. Present day code would require 40 psf for apartment occupancy.

THIRD FLOOR FRAMING

The third floor is framed similar to the second floor with wood joists measuring 1 1/2:" x 6" at 10.5 " oc over the 13' span.. The live load capacity is calculated as 45 psf.

ROOF FRAMING

The roof framing is wood joists overlain with spaced wood 1 x decking overlain with modern day wood sheathing. The roof rafters measure full size 2x6 at 22" oc. Their calculated live load capacity is 21 psf. There is no noted snow drift to this roof. There are separate 2x4 ceiling joists. The shingles are in need of replacement. The chimney is in need of repair or rebuild.

EXTERIOR WALLS

The exterior walls are thru the wall brick. In the basement, the exposed face shell of the brick basement wall have spalled and windrowed on the floor. This indicates significant water entry to this wall and makes one suspicious as the condition of the unobservable inner wythe of the wall. The inside surface of the gable end wall exposed in the attic was observed have been damaged by moisture entry. The wall is exposed above the adjacent roof. The wall has been parged presumably to resist water entry. The brick faces have been eroded away on the inner surface in the attic and are windrowed on the ceiling.
The wall along Fairchild has a vertical crack about 15' from its south end. The wall is laterally offset at this point. The crack has been caulked and or mortared to reduce water entry. This crack aligns with the interior bearing wall that runs perpendicular to State Street. This wall is bearing for the second/third/roof construction. The crack indicates the wall is pulling away from the support of the floor/roof joists.

Written by: Robert B. Corey, PE

Photo 1 – State Street elevation

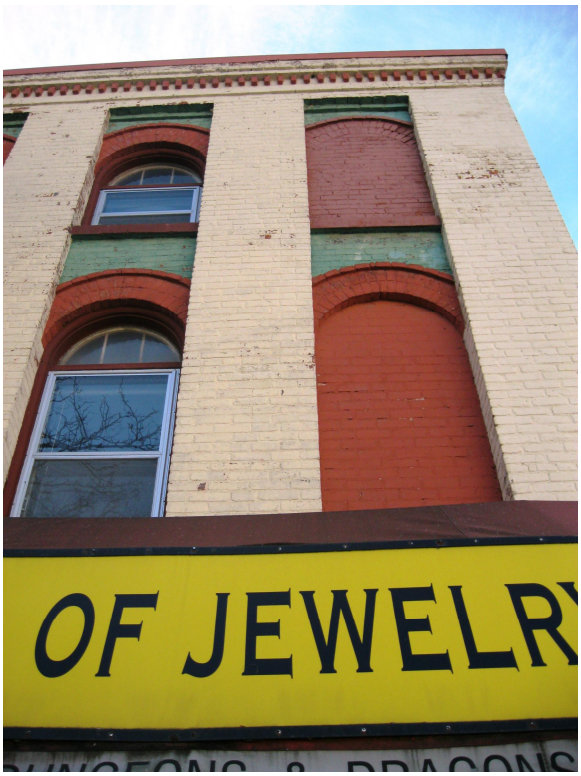

Photo 2 – State Street elevation at corner

Photo 3 – Fairchild Street elevation at corner

Photo 4 – Fairchild Street elevation at building rear

Photo 5 – Fairchild Street access to basement

Photo 6 – 1st floor joist framing

Photo 7 – 1st floor framing with water damage

Photo 8 – 1st floor framing notched for plumbing

Photo 9 – Basement wall along Fairchild Street

Photo 10 – 1st floor shoring beam and post

Photo 11 – Exterior wall base at Fairchild Street sidewalk

Photo 12 – 2nd floor joist framing observed from 1st floor retail space

Photo 13 – Ceiling finish distress beneath roof

Henneman Engineering Inc.
1232 Fourier Drive, Suite 101
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608.833.7000

Walk Thru Evaluation of 127–129 State Street
Date of Survey: December 1, 2011 Date of Report: December 16, 2011

Existing Mechanical Conditions Narrative

Frances Vallender Building 1867

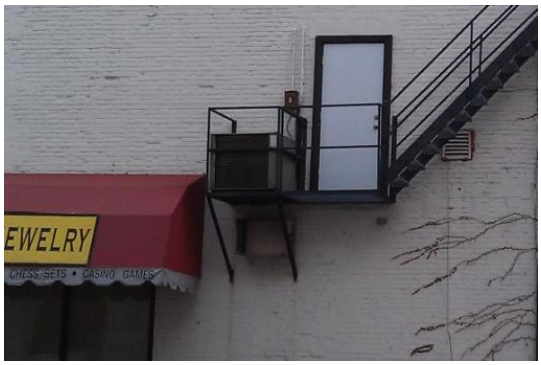
Mechanical System

The heating system consists of an atmospheric hot water boiler in the basement, which provides heat for the first floor retail spaces. Three functional domestic water heaters are also contained in the basement that serves the retail spaces and the apartment. Two are electric and one is natural gas-fired. The apartment is heated and cooled by a gas-fired furnace within the apartment. The condensing unit is supported on the side of the building along Fairchild Street adjacent to the second floor fire escape. The corner (vacant) retail space is heated with a hot water unit heater and cooled with a window air conditioner. A second retail space (Vic's Popcorn) is heated and cooled with a furnace and the condensing unit is wall hung above the N. Fairchild apartment entrance.



Boilers, water heaters, and furnace

Corner retail heating and cooling



Apartment condensing unit

Mechanical Infrastructure

There is a single natural gas service to the building feeding two meters to tenants and a single domestic water service. The building has a sanitary sewer lateral and a storm sewer lateral exiting the basement. The gas, storm sewer and sanitary sewer utilities are from mains in N. Fairchild St. and the water service is from State St. They appear to serve only this building.

The building does not have a fire protection system.

Condition Assessment

The boiler is estimated to be 5-10 years old and appears to be in good condition. The hot water piping in the basement is newer, possibly installed when the boiler was installed but could not see piping outside of the basement. None of the piping is insulated.

The furnaces and condensing units are estimated to be 15-20 years old which is the normal life expectancy of this equipment.

The water heaters are of different vintages but appear to be 10 to 15 years old and are in fair to good condition. Domestic hot water piping is copper (uninsulated) in the basement but it is unknown what the material is on the upper floors. Sanitary piping is a mix of PVC and cast iron.

Remarks

The existing HVAC systems in the retail spaces would not be acceptable under the current building code for business occupancy. While some of the mechanical equipment in the building is in good condition, it is unlikely that reuse would be practical or even possible due to capacity, condition, age, or code compliance.

Written by: Kevin Lichtfuss, P.E.

Potter Lawson
Success by Design
15 Ellis Potter Court
Madison, WI 53703
608.274.2741

Walk Thru Evaluation of 127-129 State Street; 119-121 North Fairchild Street
Date of Walk Thru: November 29, 2011 Date of Report: December 9, 2011
Potter Lawson Job No. 2010.23.00

Existing electrical conditions narrative

Francis Vallender Building 1867

Electrical System
The building electrical service is 200amps at 120/208V, 3-phase, from MG&E and enters the basement from State Street. The electrical distribution equipment is located in the basement, and there are four electrical meters for the building. Electrical panels distribute the power to building loads. The telephone service location was not found.

Electrical Infrastructure
This building appears to have an independent electrical power system that does not connect to adjacent buildings.

Condition Assessment
Electrical equipment age varies from about the 1970's to 1980's. The electrical panels are either at or are nearing the end of their useful life. There were no noted obvious failures of electrical equipment, such as evidenced by heat or smoke discoloration. The MG&E electrical service equipment appeared to be in good condition.

Light fixtures varied from fluorescent fixtures (about 1980's) to incandescent fixtures (ranging from 1940's to 1970's). Some light fixtures were not functioning and some had been removed. In general the condition of the light fixtures is poor. Wiring device condition and age varies also, ranging from 1960's to 1980's. Receptacle quantity is low in the apartment. In general the condition of the wiring devices is poor. Branch circuits ranged from flexible metal conduit to EMT conduit. Although the condition of the branch circuit wiring is not known, it appeared that the installation age ranged from the 1960's to the 1980's.

The current wiring device locations in the apartment do not comply with accessibility requirements. Receptacle quantity and locations in the apartment do not comply with current NEC requirements. Compliance with current codes for these items would require branch circuit and receptacle replacement. The majority of the service equipment and one electrical panel is installed in a cabinet, which does not meet current NEC required working space clearance.

The cabinet around the service equipment would need to be removed to make the equipment accessible.

Part of the electrical service in a constructed cabinet.

Wiring in 129 State Street.

Light fixture in 119 North Fairchild Street (2nd floor apartment.)

Electrical panel in 127 State Street (First Floor).

Remarks

The electrical systems in this building would be removed in their entirety if the proposed single building design concept was implemented. The National Electrical Code and MG&E rules require that a single electrical service power a single building.

Written by: John Dreher, PE

ASBESTOS INSPECTION & BULK SAMPLING

119 N. Fairchild/ 129 State St, Madison,Wisconsin

Advanced Health & Safety LLC (AHS) was contacted to conduct an asbestos survey at the aforementioned property.

Mr. Robert J. Stigsell of AHS inspected the properties on November 10, 2011. The property was inspected for the presence of asbestos containing building materials. Bulk samples were taken for building materials found suspect to contain asbestos, as discussed. All samples were shipped overnight via Fed Ex. and were submitted to Triangle Environmental Services for analysis by Polarized Light Microscopy (PLM).

Four separate categories of materials (if applicable) will be listed for the property:

The first list (List A) will be of materials found to contain asbestos, which are **friable** or may become friable during demolition. It is **required** that these materials be removed by a certified asbestos abatement contractor prior to a demolition. **All asbestos materials in List A must be removed prior to a fire training burn.**

The second list (List B) will contain materials found to contain asbestos but are described as **Category II non-friable.** If the building is to be demolished, it is **required** that these materials be removed by a certified asbestos abatement contractor prior to a demolition. **All asbestos materials in List B must be removed prior to a fire training burn.**

The third list (List C) will contain materials found to contain asbestos but are described as **Category I non-friable.** If the building is to be demolished, the materials may be able to remain in the building during demolition if proper steps are taken and they do not become friable. These proper steps include, but are not limited to: notifying the demolition contractor of the presence of asbestos, utilizing wet methods during demolition, notifying the landfill accepting the waste that not-friable Category I asbestos materials are present, and manifesting the waste. Also, if any of the building materials are to be recycled (ie, crushing concrete) than the asbestos must be removed from this building material. NESHAPS (DNR) does not regulate materials found at < 1% asbestos, however OSHA does still regulate materials that contain < 1% asbestos. If materials in List C are likely to be disturbed, the contractor shall ensure compliance with all appropriate OSHA regulations. **All asbestos materials in List C must be removed prior to a fire training burn.**

The fourth list (List D) will include materials that were sampled and found **not to contain** asbestos. **Removal is not required for these materials.**

If any suspect materials are found during demolition/burn that has not been sampled during this inspection, Advanced Health & Safety should be contacted to assess the situation. Inaccessible areas may exist inside walls.

Building/Dwelling:	**119 N. Fairchild/129 State St., Madison, WI**
Building Type:	**Residential/Commercial**
Inspector:	**Mr. Robert (Bob) J. Stigsell**
Inspector Certification:	**AII-03628**
Certification Expires:	**May 25, 2012**
Inspection Date:	**November 10, 2011**

Inspector Signature: 

List A

Asbestos Containing Friable Materials
(Required to be Abated prior to Demolition or Burning)
Paper over 1 light in Bathroom (Samples 38-40)

List B

Asbestos Containing Category II Non-Friable Materials
(Required to be Abated prior to Demolition or Burning)
Mastic at Chimney Flue (Samples 41-43)

List C

Asbestos Containing Category I Non-Friable Materials
(May Be Able To Remain In Building During Demo if Not Friable- Consult DNR)
(These Materials Must Be Abated Prior To Burning)
9" Floor Tile and Mastic under Carpet and Wood Floor (Assumed Positive)(18'x27')-under carpet + subfloor on wood floor)

List D

Materials Found Not To Contain Asbestos At 1% Or Greater
(Both Tested or Known Not To Contain Asbestos)
(No Abatement Required)
Floor Filler under Carpet (Samples 1-3)
2' x 2' Ceiling Tile (Samples 4-6)
Ceramic Tile Grout (Samples 7-9)
Drywall (Samples 10-12)
Drywall Mud (Samples 13-15)
Plaster (Samples 16-22)
Brown Board (Samples 23-25)
Concrete Block Mortar (Samples 26-28)
Ceiling Texture (Samples 29-31)
Window Glazing from 2nd Floor Apartment (Samples 32-34)
Ceramic Tile Grout (Samples 35-37)
Ceiling Texture (Samples 44-46)
Ceiling Plaster (Samples 47-49)
12" Floor Tile and Mastic (Samples 50-52)
Outside Texture (Samples 53-55)

Back Door Window Caulking (Samples 56-58)
Roofing Shingles on Back Porch (Samples 59-61)
Tar Paper under Roofing Shingles (Samples 62-64)

***Notes
Rooftop not accessible at the time of inspection.