

DOUGLAS J. BURGASSER, P.E.
THOMAS D. WURZER, P.E.



Inspection:

Date: March 22, 2019
Property 1 Sample Road
Address: Small Town, NY

Inspector: **Douglas J. Burgasser, P. E.**

Client:

Name: Warren Engineering
Mailing
Address:

INTRODUCTION

At your request, we performed a limited structural and mechanical inspection of the above subject property. The following report is our complete response to that request and it should be read in full. It supersedes any discussions that may have occurred during the inspection. No reproduction or reuse of this report for the benefit of others is permitted without our expressed written consent.

This inspection and report were done pursuant to a contract (*Inspection Agreement*), which you signed prior to the inspection. You selected our *Standard Building Inspection*, which is a limited visual inspection and an overview as opposed to our *Comprehensive Building Inspection*. The contract defines the limitations of our *Standard Building Inspection*. A sample copy of the contract is included at the end of this written report. The contract you signed should be considered part of this written report. If you have any questions about this report, our inspection, or the contract please call our office immediately for clarification.

GENERAL PROPERTY DESCRIPTION

This is a single-story building with mostly masonry exterior walls. There is a rear shed area that has aluminum exterior walls. The roof surfaces are modified torched down bitumen roofing, with a lesser amount of rubber membrane roofing.

The basic construction of these premises consists of a slab on grade flooring system and steel framing. The rear shed area of the building appears to be of wood frame construction. These are standard methods of construction.





STRUCTURAL

We would offer the following regarding the structure:

- Our structural analysis is based on those areas where the structural members can be directly viewed, and on examining the interior and exterior of the building for signs of unusual or significant structural distress. This could include large cracks, out of plumb conditions, etc. Many of the structural members cannot be directly viewed. This inhibits our structural analysis.
- We found slight cracks on the exterior masonry walls. This is not unusual. It is typically due to minor differential settlement. The walls can be patched or repointed. More advanced repairs become necessary in the unlikely event of pronounced settlement in the future.



- The lower most sections of the vertical steel columns that are visible from the exterior have begun to rust to varying degrees. It is important to keep these areas well protected to help prevent significant structural distress. The steel should be cleaned and coated. Reinforcement would be needed if significant rust is found.



- The majority of the roof framing and steel deck is not visible. However, roof maintenance has been neglected, and we were able to find a few areas (at the north west corner of the building) where the underside of the roof deck is rusted or damaged. You should at least anticipate that there will be sections of the roof deck that need repair when roof replacement is undertaken. This will increase the cost of the roofing job.



- There is a roof overhang at the front of the grocery area. We found weathered wood and damage on the exterior of this overhang. It is probably due to roof neglect. Repair is needed. It should be understood that there may be rot or damage in concealed areas, and you will need to make the necessary repairs if additional damage is found.



As with all buildings, there may be problems that are not visible during an inspection where we can undertake no destructive or exploratory actions. A reasonable effort is made to determine the condition of the structure of this building. However, if you do undertake work on this building which involves removal of interior or exterior surfaces, etc. you should recognize the possibility of discovering deficiencies which will require repair. This is part of the nature of owning a building, and it is especially true if maintenance has been neglected.

As regards basement moisture penetration we offer the following: It is our policy to include in every report a statement regarding apparent basement moisture penetration. This building does not have a basement, but it is still important to keep excess water away from the building. Where possible, the parking areas should slope away from the building. Also, roof drains should direct water away from the building. We found areas where drainage is substandard, and this has caused localized deterioration of the adjacent blockwork on the exterior of the building. Repair is needed in these areas.



MECHANICAL

Heating/Air Conditioning

Heat for this building is provided mostly by gas-fired forced air furnaces. The building was being heated at the time of inspection. It is our normal practice to attempt to examine the heat exchanger, which is the central and most critical part of a hot air furnace. However, heat exchanger examination on modern furnaces such as this is not possible without significant dismantling of the furnaces. The heat exchangers should be examined during annual maintenance.

The heating units are located throughout the various sections of the building. The main heating units are rooftop units. The vast majority of this equipment is old and we did not find evidence of routine servicing. Three of the rooftop units are apparently over 20-years old. There are also gas-fired furnaces hung from the ceilings in the office and warehouse areas of the grocery store. These units are also older.





There are a few electric radiant heaters in the building. We were able to directly access one of the electric baseboard heaters in the rear of the liquor store. This unit was tested and it was found to be operable.

Central air conditioning is provided by the rooftop HVAC units. We could not test the air conditioning cycles due to low ambient temperatures at the time of inspection. Once again, this equipment is old. You should obtain assurance that it functions properly.

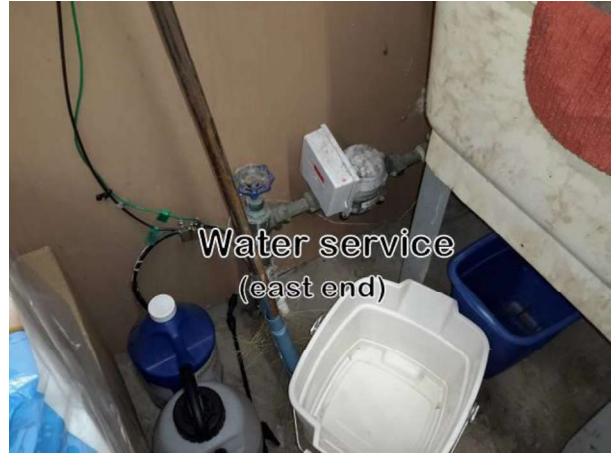
We would strongly recommend complete cleaning and servicing of the HVAC equipment by a reputable contractor at this time (prior to closing). This is an important step since it would help to provide you with some assurance that the equipment is functioning properly at this time. You should also understand that replacement of much of this equipment will probably be necessary in the near-term. This cost must be properly budgeted.

Plumbing

Where visible, the plumbing supply piping is copper and it appears to be in serviceable condition. We found one water service at the east end of the building and one water service at the west end of the building. We attempted to test many of the plumbing fixtures. They were found to be in working order. Many of the fixtures are older and you should at least anticipate the need for maintenance and repair. Water pressures in the various plumbing fixtures were normal.



Water service
(West end)



Water service
(east end)

There is a pump for the toilet at the rear of the flower shop. The pump was tested and it was found to be operable.



Toilet pump

Waste disposal for this building is apparently provided by public sewers, but this would need to be verified through the local building department or sewer authority.

We found two water heaters in the building. They were in operation at the time of inspection. One of the water heaters could not be directly accessed. The other (near the butcher area of the grocery store) is relatively young in age.

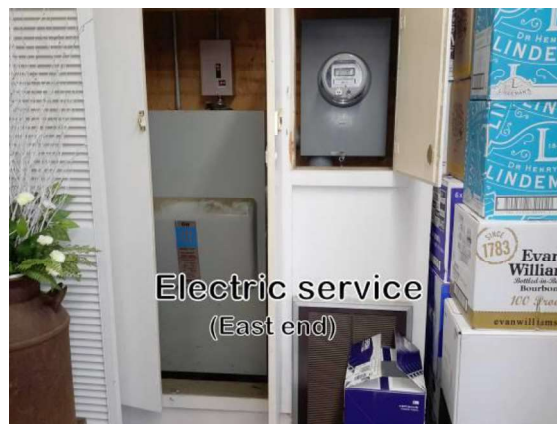


Electrical

Our investigation of the electrical system is limited to the visible components, the entrance cable, meter box, service panel, outlets and switches, and the visible portion of the wiring. Where possible, the cover of the service panel is removed to investigate the conditions inside. A larger portion of the electrical system is hidden behind walls and ceilings, and obviously, all the conditions relating to these unseen areas cannot be known. When there are deficiencies in the system, some are readily discernible. However, not all conditions that can lead to the interruption of electrical service, or that are hazardous can be identified.

The electrical power entering these premises consists of a 4-wire, three-phase service. We could not determine the exact capacity of this service since the main service entry is not directly accessible. However, there may be approximately 1,200 amperes of capacity. This would be considered an adequate amount to serve this building as it now stands.





There is also a separate meter and service at the east end of the building, near the entrance to the flower shop and the liquor store. This service appears to be a 400-ampere capacity.

Many of the electric panels and components are old. You may find the justification or need to modernize the service and replace various panels and components in the coming years. Many of the panels are near the end of their anticipated service life, and most electricians would strongly recommend replacement. This must be anticipated.

We tested a small sample of outlets, switches and fixtures. The tenants personal use of the building will determine whether additional outlets or fixtures are needed.

We found a few scattered areas where miscellaneous electrical repairs are needed. In the interest of safety, all wiring connections and terminations should be enclosed in a covered junction box, fixtures and wires should be secured and protected, etc.



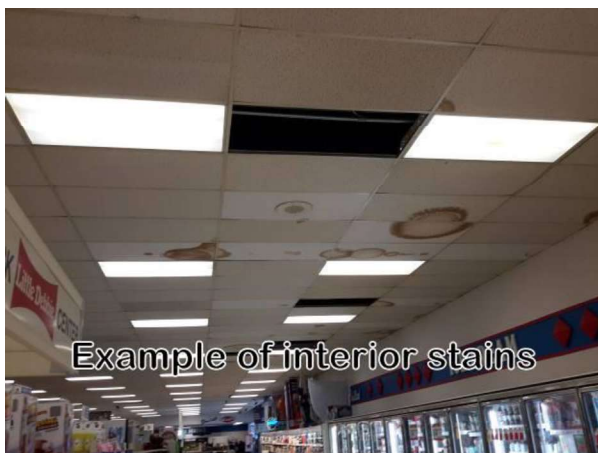
We noted that this electrical system contains some ground fault interrupters (GFIs) which is not uncommon for a building of this age. This is a special type circuit breaker or receptacle which is installed as a safety precaution in any areas that are wet or potentially wet. These include outdoors and garage outlets, bathroom outlets, kitchen countertop outlets, some basement outlets and certain other areas. A qualified electrician can advise you on areas where GFIs should be added as a safety measure.

As a general comment, we would offer that the building should be equipped with an effective modern fire protection system.

INTERIOR

The interior walls of the building vary in condition. General “wear and tear” was found. You may eventually decide to modernize or renovate the interior of the building.

There are many damaged and stained areas on the ceiling surfaces. Please see the exterior portion of this report for further information regarding the roof. Ceiling stains can also be due to leakage in any piping above the ceiling. Active plumbing leaks were not found. These areas should be kept under observation over time.





Interior stains



Example of interior stains

Flooring materials are generally serviceable. Wear was noted.

Doors and windows were found to be in serviceable condition but some of the exterior doors are older and weathered. Replacement may be justified in the not too distant future.

We did not attempt to evaluate any appliances, refrigeration equipment, coolers and freezers, etc.



Refrigeration equipment



Refrigeration equipment

Standing water on roof



Cooling equipment

There is insulation in the roof system, but we have no way of determining the exact amount. It is likely that the amount is adequate.



EXTERIOR

The exterior walls of the building are in serviceable condition. Once again, there is the need or justification for some repair on exterior wood surfaces, repointing of exterior masonry, patching of damaged blockwork, trim repairs, etc. You should budget for this expense. Also, repainting of the exterior is recommended.

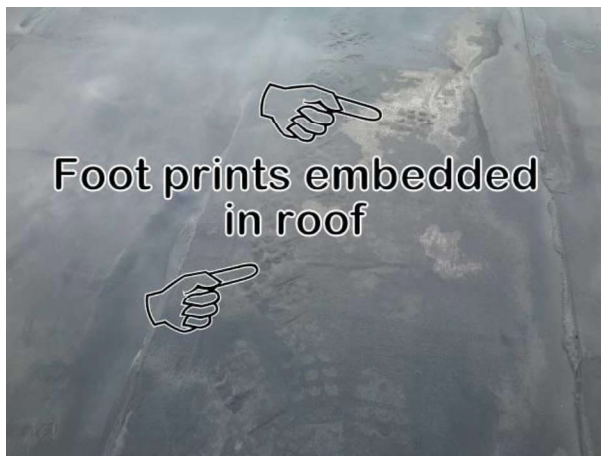
The roof surfaces were examined by walking the roof. The majority of the roofing is rolled modified torched down bitumen roofing. This roofing varies in age and condition. Much of the roofing material is older. Wear was noted. Other areas are younger in age, but the installation is suboptimal. We have the following concerns:

- Most modified bitumen roofs are intended to be coated. The coating protects the roofing from the ultraviolet rays of the sun. In this case, there are areas that were not coated, and there are areas where the coating is noticeably worn or loose.

- In some areas, the roofing was overheated when it was installed. This is based on the footprints imbedded in the roofing. This compromises the integrity of the roofing.
- It is apparent that there has been a patchwork approach to roof maintenance. Various areas have been patched or repaired over the years, but it consists of simply installing additional roofing over the top of previous layers.
- There are a few soft spots in the roof, and there are areas where the seams of the roofing are loose. This was even found to be the case in the newer sections.
- There are areas where re-flashing is needed.
- We found puddles or various areas of standing water on the roof. Although this is not entirely unusual, these types of roofs are not intended to hold water for any extended period of time.
- Roof drainage is substandard. Some of the drains are simply inverted pipe boots, rather than scupper-type drains with screens or grates.
- It was reported that sections of the roof are younger in age, and the seller indicated that portions of the roof may have been installed less than one year ago. In some respects, these repairs are substandard.

Based on the above, we strongly question the integrity and future serviceability of this roof. As the owner of this building you must anticipate at least some degree of ongoing roof maintenance as time passes. This approach can help to avoid very significant one-time expenses, but it does require frequent repairs that are eventually costly.

Otherwise, you must anticipate the need to replace the roof in the not too distant future. This can be a very costly endeavor. The exact cost can depend upon the number of layers of roofing, whether complete reinsulating of the roof system is found to be necessary, whether asbestos is found in the roof system, etc. You must budget for this significant expense.







The small area at the Southeast section of the building has a modern rubber membrane roof. This roof was found to be in serviceable condition.



The fence surrounding the trash area is in need of repair.



The asphalt parking areas around the building vary in condition. There are areas that are worn and cracked. You must anticipate the need for some degree of ongoing maintenance.



ABOUT MOLD:

It has been reported that for some individuals the presence of mold may aggravate certain respiratory conditions or cause more serious health problems. We are not mold experts and we do not inspect for the presence of mold. This is a specialized area of expertise. We strongly urge anyone who is concerned about mold or who may be susceptible to mold to contact an independent New York State licensed mold assessor. You should become familiar with the provisions of the NYS DOL Mold Program, including Article 32. More information about mold can also be obtained from the EPA.

CLOSING

Buildings built before 1978 may contain lead-based paint. Lead exposure is especially harmful to young children and pregnant women. No testing was done to determine if lead based paint is present. Additional information is available from the EPA about the hazards of lead. This information can be found at the following web address: <http://www.epa.gov/lead/index.html>.

This report is furnished at your request in strict confidence by us as your agent and employee for your exclusive use as an aid in determining the physical condition of the subject premises. This report is intended to cover only such portions of the premises and the equipment therein as may be examined visually without removing surface materials.

This report is not to be construed as a guaranty or warranty of the premises or equipment therein or of their fitness for use. Furthermore, this report is not to be used as a basis for determining the value of such premises or whether same is or is not to be purchased.

The primary purpose of this report is to provide a general understanding of the property under consideration. We look for problems; particularly those we would consider major deficiencies. Any building will have minor items deserving attention. Often, these are matters of personal preference. It is not the intent of our inspection to detail every defect we might find. Furthermore, this report is not an exhaustive technical evaluation. Such an evaluation would cost many times more and would involve a much greater commitment of time.

Owning any building involves some risk. Even the most comprehensive inspection cannot be expected to reveal every condition you may consider relevant to your ownership. Further, without disassembling the building, not everything can be known.

You, as a responsible buyer or owner, should examine the portions of this building for which you are most able to judge acceptability. This includes such things as floor coverings, degree of floor slopes, interior wall and ceiling finishes, appliances, etc. As Professionals, it is our responsibility to evaluate readily available evidence relevant to the major systems in this building. We are not responsible for conditions that could not be seen or were not within the scope of our service at the time of the inspection.

Since the condition of equipment and materials can change unexpectedly, damage can occur during the moving process, and conditions can be seen that were not visible when the premises were furnished, we suggest that the building be visited just prior to taking ownership to confirm that everything is operating properly and in good order

I trust that the foregoing report plus our inspection check sheets and our conversations at the time of inspection will provide the information you require. However, if you have any questions, please contact me.



Very truly yours,

A handwritten signature in black ink, appearing to read "DJB", written over a horizontal line.

Douglas J. Burgasser, P. E.

NYS Licensed Professional Engineer #068181

NYS Licensed Home Inspector #16000012216

DJB/tlk
Encls.