

NORTH HAMPTON LIBRARY

DBC Home Inspections

Memorandum / Report Concerning the Condition of the NH Library
by Dickie Garnett

2014 Aug 27



MEMORANDUM/REPORT CONCERNING THE CONDITION OF THE NH LIBRARY

27 August 2014

To whom it may concern,

Susan Grant contacted me about the need for the library building to be inspected and evaluated. As a member of the budget committee I saw no reason to waste the tax dollars of residents on an inspection. I suggested that we meet and talk about her request and to review documents and bids that the library had collected over past years. I understand that it is the request of the Town, and the CIP, to have a prioritized list of repairs and upgrades for the library in case the new building is not approved by the voters. Before we get to the estimated numbers let's talk generally about the issues and how they are symbiotic and thus more costly.

I had the opportunity to meet with Susan Grant a few weeks ago and tour the library building. The first stop was the attic area. If you survived the trip up the spiral stairs to the attic you are met with limited access and a tight-rope walker's maze of planks to travel out and around the ceiling area. Most of this area has had fiberglass insulation installed and additional blown in fiberglass right on top of the ceiling panels. That means that any time you have to remove a ceiling panel for routine maintenance you are greeted with clumps of insulation flying everywhere. This makes for turning even the simplest of fixes in to a huge mess. Additionally, the actual roof structure is insulated. Thermally speaking, this is NOT the most effective way to insulate. If any major work is done to this building or even just the ceiling panels, I would recommend removing all the insulation from the ceiling surface and reevaluating the insulation factor of the roof structure itself. With the use of insulated roofing substrate on the exterior and using closed cell urethane foam on the interior structure the needed insulation factor could possibly be met. "Why would we ever have to do major work to the ceiling panels?"

In the attic area are the HV/AC systems and most of the duct work that distribute heat to the building. Most of this duct work dates back from when the building was built. The duct work is run all over the attic area and as one would expect many of the ceiling panels have registers. HV/AC systems have evolved a lot since the building's construction and the method and execution of duct installations have evolved as well. What this does is tie the hands of any updating to the heating system. Obviously, if the HV/AC system were to be replaced, installing a high efficiency system would be recommended to get the most value. Chances are very high that none of the duct work that is installed currently would work with a new system. So now all the duct work has to be rerun. From an installers vantage point you have two options: move all the needed materials up the cramped spiral stair case through the small door and out on to the gang planks or take the ceiling down so you can safely work and access the area. So, either option one or two are chosen and the duct work is updated to meet the requirements of the new HV/AC system.

The current system runs on oil. I know there are many residents who stand with oil and don't see any cost savings in propane or natural gas. I don't want continue in to that quagmire so I will discuss the facts of the situation. The building is heated with oil. It has an oil tank that is 275gallons, this is the same size as many of the oil tanks that we have in our homes. On top of that as there is no space inside, so the tank is outside in the rear of the building. During winter months, the oil that we use to heat with wont freeze, but it will get sludge like. Assuming the fuel is running smoothly, it now has to go up a story and half to the HV/AC system. Running oil lines overhead can be problematic as air can get in the line. When this happens your system shuts down and has to be restarted. With a system of this size, that is a professional's job. If you read

Post Office Box 622
North Hampton, New Hampshire 03862-0622
WWW.DBCHOMEINSPECTIONS.COM
603 - 770 - 5324

 **Home
Inspections**
OF NEW HAMPSHIRE & MAINE

the service records for this system there are numerous "no heat calls". So given the fact that the HV/AC system will need to be replaced and the size and placement of the oil tank; I recommend that when a new system is needed that a high efficiency propane fired HV/AC system be installed. When properly installed this system should adequately heat and cool the building, and by using propane there will be no weather related sludge issues with the fuel or any issues with air in the line as a result of overhead running.

Keeping with the exterior let's turn our focus to the roof coverings. The shingles that are on the roof currently are nearing the end of their life. I always recommend replacing a roof before the leaks start. Again looking for the most cost effective long term solution for the building, I would recommend having a standing seam metal roof installed. Yes, this style does cost significantly more than a shingled roof but it also lasts much longer. Most metal roofs come with a manufactures warranty of fifty years- I've seen many older than that. Best you will get from a shingle roof is 25-30 years with perfect conditions. If the decision is to not spend the money to get a better product replacing the materials in kind will involve removing the AC equipment, installing a flat rubber roof and then installing an asphalt shingle. At a minimum I would recommend Architectural style shingles as opposed to the 3-Tab style currently installed.

On the interior of the building there are many minor maintenance items involving the electrical fixtures, the windows, the window treatments and general maintenance. The two I will focus on are the lights and the window treatments. Apparently the light fixtures installed in the library are ageing and many of the sockets that the 2-Pin florescent tubes are installed in are becoming unsafe. In plain speak, the shielding on the wires has deteriorated away and there is a high chance of shock. The library has already started replacing these fixtures. It can be a hard sale to many people but good, well installed window treatments make a huge difference to the efficiency of a building. Even the most efficient brand new windows can have air leakage. Having accurately installed blinds and shades can cut the draft during winter months and in warmer months cut the amount of solar warming inside.

Everything mentioned so far are items that could be completed to the existing library; some at great expense. Many issues involving ADA & Department of Labor items simply cannot be met in the existing structure without major renovation and closing of the library. The bathrooms for the entire building do not meet anywhere near the space required for ADA compliance. Furthermore the sheer number of bathrooms is below the recommendations for a public space of this size. The issue is space. The bathrooms simply aren't big enough. "Let's make them bigger!" The walls for the bathrooms are masonry block, resting on the walls is the roof structure. So in order to expand the bathrooms the roof will have to be re-engineered, the slab will have to be dug up to move the waste and supply lines and then we will have to take more space away from the common area. The hallway, also known as the secondary means of egress, outside the bathrooms appears too narrow. In order to expand the hallway to a safe width you can move one of two walls: the bathroom walls that we need to expand or the walls with all the electrical panels in them, your choice.

Space. As a functioning library, the working & common area is very cramped. The library needs more space. To stay inside the envelope of the current building there are limited options. There is the heavily used back room that houses all the community events and then there are the administrative offices up front. I suppose that if the administration and staff wanted to move out we could claim their space. This won't lead to a very effective library but by taking away the office space, a designed renovation could be completed that might have room for ADA compliant bathrooms and DL approved access to the only storage area- the attic. "Why don't we gut the place?"


**Home
Inspections**
 OF NEW HAMPSHIRE & MAINE

Absolutely, we could renovate the library. It will be simple. Develop a plan, raise the money, close the library for a year, store the contents and get swinging. I would figure a complete renovation of this building would cost in the ball park of 900 thousand to 1.2 million but I am not a commercial builder. For that amount you would end up with an almost new small, cramped, library.

There are many issues with this building but it is still standing and will be tomorrow and the next day. I feel that the library staff and the trustees do a very good job of keeping the building running as effectively as possible. The conclusion that I came to during my meeting with Susan Grant is that this building should be put on a "repair as needed" protocol. There are many things that could and will need fixing; but why spend the money?

Below is a prioritized list of the main items that were discussed with me. The numbers associated with each item are based off of bids and notes collected by the library, with considerable contingency for timing added on. The library may have more up-to-date number before the CIP meets on this subject.

Regards,



Dickie Garnett
 DBC Home Inspections

Project	Priority	Time Frame	Estimated Amount
Roof replacement in kind	1	1-5 years	\$30-35,000
HV/AC System	2	5-10 years (sooner if exchanger can NOT be fixed)	\$15 -20,000
Duct work efficiency	2	Will have to be done with HV/AC replacement	\$30-40,000
Ceiling panels, Insulation	2	Most likely done when duct work is completed	\$30-45,000
General Items	3	As needed	\$15-20,000
None of these items can be moved to a new building. Once it's spent, it's gone.			\$120,000 -\$140,000