



The City of Morgantown

Public Works Department

389 Spruce Street

Morgantown, West Virginia 26505

Terry L. Hough, P.E., P.S., CFM

Director of Public Works and Engineering

PH: (304) 284-7412 FAX: (304) 284-7409

E-MAIL: bshellito@cityofmorgantown.org

though@cityofmorgantown.org

PRELIMINARY REPORT

May 25, 2012

Subject: General Condition of Woodburn School

To: Terrence Moore, ICMA-CM
City Manager

Terry Hough, P.E., P.S., CFM
Director of Public Works and Engineering

From: Trevor Lloyd, P.E., CFM
Staff Engineer

INTRODUCTION

This report is in response to a request from the City Manager to assess the general conditions of the three structures that comprise Woodburn Elementary School. The goal of this report is to give the reader a general idea of what issues would need to be addressed or further investigated if the property were acquired by the City. The structures referenced in this report are the "main building", the "modular building", and the "gymnasium." The author recognizes that there was an expansion to the main building some time ago, but for this report the expansion and main building will be referenced just as the "main building." Those readers who are NOT familiar with the school buildings referenced above may seek further explanation upon request by contacting the Engineering Department of the City of Morgantown.

All observations are based on visual inspection only. No specific materials testing or detailed investigations were completed for this report. It should be noted that many issues are highly dependent on use of the buildings and that the author conducted this analysis with the assumption that the buildings would be used in their current condition as a community center. Cost estimates are not included.

GYMNASIUM AND MODULAR BUILDINGS

These buildings appear to be in good condition. Minor repairs and regular maintenance would be required to keep the buildings in good standing. Both are accessible from grade.

MAIN BUILDING

Structural: The portico on the front of the building has sustained significant cracking in the brick façade as well as significant damage around one of the roof drains. As for the remainder of the building, the structural integrity appears to be in good condition. There are no visible signs of significant bowing, sagging or leaning of the major structural members or walls. There are however areas of the façade that need work. The work ranges from cleaning to repointing the brick. Although the work is minor, it should be done soon to prevent more serious and potentially very expensive problems.

Roof: There are two large roof areas and several smaller roof areas. All of the roofs appear to have an EPDM “rubber” roofing membrane fully adhered to mechanically fastened insulation. The two large roof areas appear to be in fair condition. A standard maintenance program would provide several more years of service. The smaller roof areas are more of a concern. One roof area needs to be completely replaced. Another of the smaller roof areas is deteriorating quickly due to poor design/installation and will probably need to be replaced in the near future. There are two masonry chimneys that are showing signs of age. These chimneys should be repointed or refaced before the elements damage them further.

Roof Drainage: Nearly all of the scuppers, conductor heads, and roof drain bodies need repairs of some kind. Some repairs will require full replacement of parts but most repairs are fairly minor. The downspouts are in fair condition but require minor adjustments to bring them into good working order.

Electrical: The building has a 400 amp, 3 phase service. This level of service could easily serve most purposes for which the building would be used. There are two 200 amp breaker panels in the basement that appear to be up to code and in good condition. The first floor has two 100 amp panels. One of them is very old and should be disconnected and the wiring rerouted to one of the panels in the basement. The other 100 amp panel appears to be much newer and in good condition. The second floor has one 100 amp panel that is similar to the older panel on the first floor. This panel should be removed and replaced with a new 200 amp panel. Also, some work may need to be done at the electrical service entry point in order to modernize the meter configuration.

Plumbing: Water supply seems to be in working order. The bathroom fixtures are old but still serviceable with the exception of two commodes in the boys room on the second floor. Drainage however, is a major problem. Interviews with building staff revealed that water does not drain properly in several locations of the building. These problems could be related or isolated instances. A thorough plumbing investigation would need to be done. It is highly likely that the sanitary drainage pipes for the building are clay and have partially collapsed resulting in slow drainage. This is a very common problem for a building of this age. There are a couple of ways to address this issue but none are simple or inexpensive.

HVAC: The heating and cooling systems of the school are very old but still in working order. Based on interviews, the building does not heat or cool evenly but is adequate to

keep from freezing in the winter months. Based on observation, some areas have a damp feel and musty smell. This is typically caused by poor circulation and leads to mold issues. The costs associated with modernizing and properly balancing an HVAC system for this building would be very high.

Fire Safety Systems: The fire alarm control panel appears to be modern. However, many of the alarm system devices are outdated and would require replacement. Most of the "EXIT" signs need to be replaced with modern signs which include battery backups. Many of the smoke detectors need replaced. Emergency lighting appears to be in compliance with current standards. There is currently no sprinkler system for the building. Installation of a sprinkler system would depend on too many issues to be discussed in this report. The hood system in the kitchen facility is non-compliant and needs to be replaced. A more in depth inspection by the Morgantown Fire Department will be needed to fully determine any other fire safety issues.

Ingress and Egress: There appears to be an ample amount of egress from the building on the basement and first floor levels. The second floor egress however requires attention. There are two fire escapes on the north and east sides of the building. The east fire escape is in good condition and requires minor upgrades. The north fire escape is in poor condition and is non-compliant with current standards on several levels. The north fire escape should be removed. Design work should be done in order to develop options for second floor emergency egress. Options developed would most likely result in reconfiguring the interior walls of the second floor or installation of a new fire escape.

Accessibility: There are several existing doors and hallways with less than a 32" clear opening and therefore do not meet Americans with Disabilities Act (ADA) guidelines. There are no accessible entrances to the main building from the immediate site. Sidewalks are not accessible to parking, and the building is not accessible from a public sidewalk. At the interior, there are several thresholds at doors with steps, steep ramps, or offsets, thus preventing accessible transition between spaces. The stairwell landings from the second floor to the first floor are undersized per International Building Code (IBC). There would be a large cost involved in bringing this building up to ADA standards.

CONCLUSION

In summary, the Woodburn Elementary School in its current state supports its function. However, if the building were to change owners and fall under the jurisdiction of the City, whether the new owner be the City or a private business, several building and fire code deficiencies would have to be addressed before the building could be occupied. As this report does not include cost estimates for the necessary work, the only comment that can be made is that there are some rehabilitation issues that will be very costly both in the immediate future as well as the long term. Additional investigation would be required to more accurately determine these costs.

The point of contact for this report is Trevor Lloyd, Staff Engineer for the City of Morgantown. Phone: (304) 284-7412. E-mail: tlloyd@cityofmorgantown.org