

Coggeshall School Analysis of Alternatives Sept 4, 2019
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Ref (a): Gerard F. Bliss, Inc. Inc. Report of June 24, 2019
Appendix A – Option Details
Appendix B – Mold Discussion

Purpose. Due to the significant material and health issues that have been identified, a review of the potential alternatives for the Coggeshall School has become necessary.

Overview. The Coggeshall School (built circa 1925 and previously used as a town elementary school and later a private school) also has been occupied by various public users. The current conditions are as follows.

South Wing in Layup. The (original) South Wing has, for all intents and purposes, been in “layup” with no operational utilities (except to provide water supply to the sports fields). The South Wing has been used for static storage by several citizen groups.

North Wing (Educational Purposes). The North Wing (added circa 1965) has had various educational uses by the Town, and the private Penfield School and Aquidneck Island Christian Academy (which vacated the building in July 2018). Most recently the North Wing has been used by various recreational programs and storage for a few community groups.

Jacobs Report. Also included is relevant information from the Jacobs Engineering Report from a survey of building conditions done in 2018 that provides estimates for the future operational improvement and capital improvement costs required for the next 5 years.

Air Quality. Recent air quality testing showed marginally high levels in the North Wing and exceptionally high levels in the South Wing, above established “current safe guidelines”. This necessitated the Town Building Official to issue a letter to cease occupancy of the building until air quality issues were resolved. We are investigating the “guidelines” for airborne mold to determine what remediation and abatement will be required.

Mold “Guidelines”

Note that there are no State or Federal established “guidelines” for airborne mold. Generally, the American Industrial Hygiene Association (AIHA) (www.AIHA.org) is used as the established body that specifies mold “standards”. Standards are mainly based on the health effects on occupants and vary based on the specific mold spores and the toxins they may contain.

The “2500” “Guideline” seems to be a “remediation industry” published number.

See Appendix B for more information on Mold.

Repairs for “existing use”.

This memo provides an analysis of a number of potential alternatives for the future of the building. Included in this analysis is correcting building code standard deficiencies for continued use of the facility for *educational and educational-related purposes*. A change to that “existing use” would require a complete re-evaluation of the applicable building codes based on the anticipated new building use.

(Note that most of the “remodel” options apply to only a change to existing use and DO NOT include any Fire Code improvements that would allow a total occupancy of more than 49 people. Notably, is the high-priced investment that would be needed for fire suppression that is the overriding requirement to increase occupancy).

Discussion on Fire Codes

The costs estimated below allow for occupancy of a limited number of people. Although a number of less than 50 people has been generally used, a recent visit by the State Fire Marshall indicated that the Fire Code requirements would be determined using a formula that considers a number factors (including intended use, square footage of each space, fire code acceptable egress points, etc.). Based on those factors, the maximum number of people in each space would determine if a sprinkler system would be required.

Alternatives – Various Options to Proceed Forward

Note: For each of these occupancy options, a standard agreement would need to be executed by individual users/groups with the town to ensure proper insurance, deposits for mis-use, delineation of operational and maintenance responsibilities and cost share for operational costs.

Options A-1, A-2 and A-3 – Continued Use of Building Sections (<50 occupants)

Use of North Wing Classrooms Only. (Option A-1). This option allows use of the classroom wing for educational and arts programs as well as storage following air quality remediation/abatement and correction of Building Code issues.

Additional use of North Wing Gymnasium (Option A-2). This option assumes the use of Option A-1 with ancillary use of the gymnasium as an extension of the education/arts use of the classroom wing. It includes air quality remediation and abatement.

Note: Since both the gym and classroom wing have common ventilation and services, it would not be practical to treat remediation of either section separately. Consequently, a partial occupancy option of either section (either Option A-1 OR A-2) is not considered feasible and should be analyzed as a single, combined alternative.

Option for minimum requirements for re-occupancy of the North Wing. Pending full mold remediation, for re-occupancy and complete remodeling are included. This involves General Cleaning to bring airborne mold within guidelines pending full remediation of all surfaces.

Use of South Wing (Option A-3) – This option returns the South Wing to full use. Due to the extensive need for air quality rehabilitation/abatement, recommissioning of the physical plant and correction of building and fire code issues, this option is exceptionally expensive.

Options B-1 and B-2 – Layup – Both of these options result in complete abandonment of the section of property while leaving the structures intact and completely laying up all services and utilities (except for the water supply to the sports fields.)

South Wing Layup (Option B-1) – This lays up the South Wing by removal of all material and physically closing the building. Water supply to the sports fields would be maintained.

North Wing Layup (Option B-2) – This lays up the North Wing by removal of all material and physically closing the building. Services and utilities would be placed in layup for later potential operation.

Options C-1 and C-2 – Demolition

South Wing Demolition (Option C-1) – This Option demolishes the South Wing while maintaining the North Wing in operation or layup.

Total Building Demolition (Option C-2) – Note that this total demolition option cost is ONLY SLIGHTLY MORE than South Wing demolition only because of the work required to remodel the building interface if only the South Wing is demolished.

Appendix A

COGGESHALL SCHOOL OPTION DETAILS

Note: the options below DO NOT include additional Fire/Building Code upgrades that would be required to change use to allow more than 49 total people to occupy the building at any one time. These upgrades are roughly estimated to cost an additional \$500,000 to \$1 Million.

Options A-1 and A-2– Remediate and Use North Wing (use of classroom wing and gymnasium)
(49 people max total occupancy)

Option A-1 Remediate and Use North Wing for educational and arts programs

Anticipated Use

- Classrooms 1-3 – Recreational / Arts Storage
- Classrooms 4, 5, 6 – Educational / Arts Programs
(example: about 4 activity tables or seating for about 25)

Actions Required for Re-Occupancy

Mold remediation/abatement.

- Clean existing mold
- Install ventilation/dehumidification

Building and Fire Code Issues

Note: it is assumed that Building Codes are subject to continuation of existing use as an educational facility and NOT upgrading to a different building use standard.

- Ensure restrooms operational
- Ensure all doors operational
- ADA Access to outside for occupied rooms
- Remove/fix nonconforming items (temporary power, exposed internet cable, remove or reinstall thermostat cabling)
- Secure Access from North Wing to South Wing
- Specification of area and use for each space to determine Fire Code

Code

- Building Official and Fire Marshall Re-inspection

Option A-2 - Remediate and Use Gymnasium (assume use in conjunction with classroom use)

Anticipated Use – ancillary use for classroom activities. (max occupancy 49 including classroom use)

Actions Required

- Complete Option A-1 items.
- Mold Remediation (ceiling tiles)
- Ensure adequate ventilation for mold abatement

Options A-1 and A-2 Combined Costs

Option A-1 and A-2 - Complete Remediation and Repair Cost - \$56,300
(Roof repair only and minor repairs)

Option A-1 and A-2 – Complete Remediation, Remodel Cost -\$295,300
(Roof replacement and remodel)

Breakdown of Costs

- Removal of Stored Materials – \$1000
- Complete Mold Remediation \$ \$27,000
- Continued Mold Abatement
 - Ventilation/ Dehumidification \$ 9,000
- Roof Replacement (Classroom Wing) - \$128,000
- Roof Replacement (Gymnasium) \$30,000
- Roof Repairs only \$ 10,000
- Circ Pump Repair - \$4800
- Building/Fire Code Repairs \$ 4000
- Complete Interior Remodel \$125,000

Interim Occupancy - This would allow occupancy of 3 of the 6 classrooms for educational/arts programs and storage for the remaining 3 classrooms. It would include use of the gymnasium for educational/arts use as an extension of the use of the classrooms. *It is based on Building Official requirements to re-occupy the North Wing only and does not include complete mold remediation. (\$29,300)*

Complete Actions noted above under A-1 “Actions Required for Re-Occupancy”

Breakdown of Cleaning/Minimum Upgrade Costs

- General Cleaning - \$1000
- Dehumidification Install - \$9,000

Building/Fire Code Repairs \$4000
Circulating Pumps Repair - \$4800
Roof Repairs \$10,000
Air Quality Re-Test \$500

Operational Costs (averaged for per year) - \$4500 /month (54,000)

Janitorial/Dumpster - \$ 600/month
Heat/ Cooling/Dehumidification/utilities - 2100/month
Bldg Maintenance - \$1350/month
Snow Removal \$ 1350 / avg winter season (\$115/ month over a year)

A Notional Business Model (100% occupancy) (Net \$9420/yr)

Rent Classrooms at a rate of \$350 per month (\$2100/mo)
Rent Gym for \$25 per hour
(6 hrs per day/ 5 days per week) = \$3000 per month
Total Revenue - \$5100 per month
Operational Cost - \$4315/mo
Annual Net Revenue - \$9420 (Not including cost of initial upgrade)

Note: this is only a notional business model and there is currently no guarantee of occupancy.

Jacobs Report Information (note: since Jacobs did not specifically separate North and South Wings, the allocations for each wing are best estimates)

Priority 1 (Mission Critical) and 2 (Indirect Mission Impact) - Long term
Facility Condition Improvement 1- 5 year: None
Priority 3 (Short-Term Conditions) and Priority 4 (Long-Term
Requirements) \$ 150, 000
Priority 5 (Enhancements) - \$3,100

Option A-3 - South Wing Rehabilitation

Actions Required

Mold remediation/abatement.
Remove all stored material
Ensure restrooms operational
Ensure all doors operational
ADA Access to outside for occupied rooms
Install ventilation/dehumidification
Remove/fix nonconforming building code items
Recommission/Upgrade HVAC

Complete Remediation Cost

- \$ 317,500 (with Roof Repair only)
- \$ 363,500 (with Roof Replacement)

- Removal of Stored Material \$ 1000
- Mold Remediation \$ \$71,000
- Roof Repairs \$10,000
- Roof Replacement - \$56,000
- Remodel and Operational Repairs \$ 125,000
- Ventilation/ Dehumidification/HVAC \$ 60,000
- Estimate based on actual plan for recommission or upgrade.
- Other Fire/Bldg Code Upgrades - \$50,000
- Complete Remodeling - \$125,000

Operational Cost

- Janitorial \$ 500/ month
- Heat/ Dehumidification
(unknown since rehabilitation of the South Wing would include new HVAC) Estimated at
- Snow Removal (included in North Wing Estimate)

Jacobs Report Information (note: since Jacobs did not specifically separate North and South Wings, the allocations for each wing are best estimates)

- Priority 1 (Mission Critical) and 2 (Indirect Mission Impact) - Long term Facility Condition Improvement 1- 5 year: \$400,000
- Priority 3 (Short-Term Conditions) and Priority 4 (Long-Term Requirements) \$ 170, 000
- Priority 5 (Enhancements) - \$3,100

Option B-1 – South Wing Layup

- No remediation
- Removal of Existing Stored items
- Relocation of current users

Cost

- Removal of Stored Items \$ 1000 (est)
- Relocation of stored items – borne by owners

Option B-2 – North Wing Layup

- No remediation

Removal of Existing Stored items
Relocation of current users

Cost

Removal of Stored Items \$ 1000 (est)?
Relocation of stored items – borne by owners
System long-term layup \$2500

Option C-1 – South Wing Demolition

Estimated Cost - \$145,000

Option C-2 – Total Demolition

Estimated Cost - \$149,000

Upgrade to Fire Code

(See Fire Code Discussion (above))

Based the many factors in the State Fire Code, the maximum number of people in each space would determine if a sprinkler system would be required. The following rough estimated additional cost (above the “remodel” options above) would be incurred to upgrade the fire suppression system.

North Wing Only - \$350,000

South Wing (additional to North wing install) - \$60,000

Total - \$410,00

Appendix B

MOLD STANDARDS

Ref : (a) Gerard F. Bliss, Inc. Inc. Report of June 24, 2019

Reference (a) reported the results of an air quality review of the Coggeshall School.

The Report Identified concentrations of up to seven Mold Types.

One Mold Type was identified as above the “current safe guideline” in all South Wing Areas and marginally high in the North Wing Reception Area.

1. The report referred to a “Current Safe Guideline of 2500 counts per cubic meter. The Predominant general (families) are Aspergillus and Pennicillium.”

2. The North Wing Reception was reported as 3310 counts per cubic meter

3. The OUTSIDE reading was 1870 counts per cubic meter.

Mold “Guidelines”

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The “2500” “Guideline” seems to be a “remediation industry” published number and some studies state that possibility of health hazards due to mold may be 10 to 100 times that “guideline”.

Clearly, the 100% solution for the North Wing would be to do a complete and thorough mold remediation. But, without dehumidification or air conditioning, the mold is sure to return.

In general, AIHA says that a general initial cleaning and routine periodic cleaning of affected areas are usually satisfactory to provide a safe environment.

Ref (a) Provides recommendations, ALL of which apply to the South Wing only.

- Remove all carpeting from room below grade, disinfect concrete floor
- Remove all food and other sources of nutrients from rooms
- Thoroughly disinfect al wall and ceiling below grade
- Launder all clothing before returning it to the room
- Retest for mold spores