

ROBINSON SCHOOL BUILDING COMMITTEE (RSBC)
FAQ: Robinson - Building Details and Facility Challenges

Building Condition & Infrastructure

- 1. What is the age of the school building, and when was the last major renovation or addition completed?**
 - a. Building Completed in 1969 (56 Years)
New Boilers installed in Fall of 2010- \$69,000
New Windows installed as part of MSBA ARP Program -\$2,087,458
- 2. Are there structural deficiencies (e.g., foundation issues, roof leaks, crumbling walls, aging windows)?**
 - a. The most urgent need at the Robinson School would be the replacement of its roof. The existing roof membrane was installed in 1988. In 2018 Roof Consulting Services performed evaluations on the roofing systems on all town and school buildings. At that time, there were three distinct areas of roofing identified at the Robinson School. Two out of the three areas failed and were recommended to be replaced by 2019. The third area over the entrance canopy was estimated to have 5-7 years of remaining useful life left at the time of evaluation and was recommended to be replaced by 2024.
- 3. Is the HVAC system outdated or failing?**
 - a. While the Robinson School had two new boilers installed in 2010, the HVAC System still has many deficiencies that negatively affect the building operation. Each classroom is heated by ceiling mounted Fan Coil Units (FCU) or in the case of the larger open classrooms, four FCU's. The FCU'S at Robinson are at the end of their useful life and have become increasingly difficult to maintain due to the scarcity of available parts and the amount of additional maintenance the motors need to keep them operating properly and from becoming a noise distraction to the building occupants.
 - b. Another issue that the HVAC System has is related to the Pneumatic Controls. Pneumatic Controls are an outdated technology that utilizes compressed air to control the flow of heat coming from the Fan Coil Units and to regulate temperatures throughout the classrooms.. Over the years this system has become problematic to diagnose and repair issues with due to the piping being buried in the walls. This has led to a decreased amount of control of certain FCU's and is also extremely inefficient from an energy usage standpoint due to the compressor excessively running to maintain adequate air pressure. It is also worth mentioning that there is inadequate ventilation in the cafeteria and there is no ventilation in the corridors.

4. Are there electrical or plumbing issues that impact daily operations?

- a. Overall, the existing electrical systems including interior and exterior lighting, Normal and Emergency Power distribution are in poor but operational condition but are beyond their useful life expectancy. The current electrical system presents specific concerns and non-compliance with code related to clearances around distribution panels. Another major challenge presented by the inadequate electrical system is the lack of receptacles. Classrooms at Robinson are equipped with just two receptacles, which is not sufficient for normal operation.
- b. The overall condition of the plumbing systems at the Robinson School is consistent with a building its age. Due to the fact that the majority of the piping is not visible, it is presumed to be at the end of its useful life and will begin to exhibit problems over the next few years. The biggest concern with the existing plumbing that impacts daily operations is that the majority of all the existing plumbing fixtures are original to the building and do not meet current accessibility and water conservation standards

5. Are there safety concerns?

- a. In general the existing fire alarm system is in good working order, but the system is beyond its useful life and needs to be replaced. The Robinson School is also not equipped with a Fire Suppression System.

Educational Adequacy & Space Constraints

6. Does the school meet current educational program needs, including adequate classroom sizes, specialized learning spaces, and accessibility requirements?

- a. Each of the four open pods (approx 2,604 sf) serves multiple classes (3-4) in grades ranging from K-2, including circulation. This equates to less than 650 sf per classroom area. There are no walls between the classroom/learning environments. Furniture and low dividers separate the learning environments from each other and define circulating paths.
- b. Many of the effective classroom spaces are more than 20% smaller than the MSBA guidelines. This applies to many other spaces including: gymnasium (4,418 sf); Special education (687 sf) and art (700 sf).
- c. The gymnasium was created by enclosing previously outdoor space. There are temperature regulation issues associated with this space.
- d. The music room (1,446 sf) is on the cafeteria stage. This combined cafetorium space (3,677 sf) creates scheduling conflicts and lacks appropriate acoustical isolation.
- e. STEM education in elementary schools largely takes place in the homeroom classroom. Only one sink exists and is not handicapped accessible.
- f. The PreK classrooms are significantly undersized. (4 spaces ranging from 545 sf to 746 sf within one pod)
- g. A portable section was added with two classrooms (826 sf each) which is utilized for Speech and OT/PT services.

7. Does the building capacity meet the needs for the current and future student population?

- a. The capacity is technically listed as 475 students. However, in order to provide flexibility and collaborative spaces along with a variety of learning centers for the students, that number is not practical. Presently there is an enrollment of approximately 350 students which has allowed us to maintain class sizes of 18-25 per section. Each of the open concept pods serves between 3-4 sections of students. Other areas of the pod are needed for a variety of student support services.

8. Does the building have adequate facilities for science labs, libraries, technology integration, and special education programs?

- a. No, the Robinson School does not have adequate space to appropriately support the special education programs within the building. Special Education services, related services, and general education intervention supports are available, both in a pull-out and inclusion setting, however, pull-out service space that is free from distractions is limited due to the open concept model. The facility is not able to provide space for any sub-separate programs such as our district REACH program which supports students on the autism spectrum. Currently, students requiring that level of services need to enroll in a different school across town.
- b. A modular classroom was added in the 1990s which provides some additional space but the location is not ideal for special education services and might not meet the expectations of the Department of Elementary and Secondary Education (DESE) in a future program review. Some STEM opportunities are available but are not as easily accessible or flexible as in our other two pre-K to 2 schools. ELL services are provided to our multilingual learners, however, again as with Special Education, pull-out service space that is free from distractions is limited due to the open concept model. Technology integration is challenging as access to electricity is limited to one side within each of the suite areas. The library is located at the central hub of the building. It is used as a transitional space when students and staff travel from one pod to another (e.g. traveling from their open classroom to integrated arts, lunch, recess, etc.). This causes major disruption for the students using the library or participating in library class.

9. Are there sufficient cafeteria, gym, and auditorium spaces to accommodate students and staff?

- a. There is no dedicated auditorium space. The cafeteria has a stage connected to it which is currently being used as the music classroom. The space for the cafeteria and the gymnasium are sufficient to accommodate students and staff.

Code, Compliance, & Accessibility

10. Is the building fully compliant with the Americans with Disabilities Act (ADA) for accessibility?

- a. While the Robinson School is not up to modern standards for ADA Compliance, the corridors and hallways meet maneuvering clearances at doorways in the main entry vestibules, classrooms /offices, and restrooms, but the stairs, ramps, and their associated hand rails do not meet accessibility standards. Drinking fountains in the building also do not meet accessibility requirements due to insufficient clearance around the fountains.

11. Are there hazardous materials that need removal?

Yes

12. Does the building meet current energy efficiency and environmental standards?

No

Operational & Maintenance Costs

13. How much does the town spend annually on repairs and maintenance? Are costs increasing due to aging infrastructure?

- a. In FYE 24 we spent \$78,946 on operations and maintenance at the Robinson School. Due to the age of the infrastructure in that building we anticipate these costs to continue to climb as more repairs are necessary each year.

14. Have there been repeated emergency repairs that indicate failing systems?

- a. Lack of proper lightning / phase protection have led to recent failures with certain HVAC Systems and lack of proper ventilation have led to generator malfunctions due to it being located inside the mezzanine of the boiler room.

15. Are there energy inefficiencies that result in high utility costs?

- a. Yes, the lighting in the building was retrofitted in the mid 2000's to T% fluorescent fixtures. Upgrading them to modern LED Fixtures would result in significant savings.
- b. The HVAC System is operated by a failing pneumatic controls system which results in inefficient operation of the system. Classroom temperatures are difficult to balance and at times overheat, resulting in staff opening windows during heating season to moderate the temperatures.

Impact on Students & Staff

16. Are there concerns with indoor air quality, natural lighting, or noise levels affecting learning environments?

- a. Ventilation – large unit ventilators are slung within the pods. These do not adequately distribute the heated and ventilated air through the four open classrooms.
- b. Lighting – natural light appears adequate at the two perimeter learning environments. Inner classroom spaces (2 of 4) within the pods have no direct access to natural light and views.
- c. Acoustics – Four teaching spaces (classrooms and other) makeup each pod. There are no walls that acoustically separate the spaces from each other. There are acoustical baffles / structures have been draped from the ceiling in the pods, these should not be considered a long term solution. They gather dirt and dust and are difficult to clean.
- d. Four ceiling hung unit ventilators in each pod are noisier than desired and have limited air filtering capability.

17. Do teachers and staff have adequate workspace, storage, and staff facilities?

- a. There are no team or adequate teacher work, planning, or even lunch areas that offers space for collaborative discussions about student data or best practices, as there is no room available to hold multiple staff members in an enclosed space.
- b. Also, the adjustment counselors, who work with students who are struggling socially, emotionally or behaviorally are serviced in a location that does not have privacy.
- c. The nurse's office can only accommodate one student at a time to use the cot so if multiple students require rest/help there are limited opportunities for the nurse to attend to their needs.

Previous Studies & Reports

19. Have there been past facility studies, engineering assessments, or accreditation reports highlighting deficiencies?

- a. In early 2023, a district wide Comprehensive Facilities Assessment was completed by Symmes Maini & McKee Associates (SMMA) of Cambridge to identify facility and educational needs for the next ten years. The report identified the Colonel John Robinson School at 60 Concord Rd as having the most significant needs. The building was constructed in 1969 as an "open plan" school. The roof was determined to be in failing condition, the HVAC system is obsolete and beyond its expected lifespan, and the electrical and plumbing systems are inadequate.