

Madison Primary School Proposed Renovation Project
FAQs Based Upon Tier 2

Original: December 2018 (Tier 3)
Revision 1: March 11, 2019 (Tier 2)
Revision 2: October 18, 2019 (Unphased)

- **How many students does Madison Primary School currently serve?**
 - 401 as of 12-7-2018
 - Grades: PreK-2

- **What is the projected growth for our area over the next twenty years?**
 - Weldon Cooper projects Madison County population per decade:
2020 - 12,889
2030 - 13,182
2040 - 13,288

Year	0-4 years total pop.	5-9 years total pop.
2020	679	686
2030	702	726
2040	727	743

- **For how many students is the renovation being designed?**
 - 630 (25 classrooms of 24 and 3 sped classrooms of 10 <SOQ>)

- **What is the proposed square footage of the renovation?**
 - Renovated area 53,000 s.f.
 - Contained on 30 acres of land

- **Why is the renovation necessary?**

MPS was built in 1975 and is over 43 years old. The floorplan was constructed as an open concept with no walls, which were added later. Thus, individual classrooms are not all equipped with venting and returns. Code at that time did not require fire walls. The renovation is needed due to the following educational and infrastructure deficiencies:

 - Imminent HVAC failure concerns
 - Imminent phasing out of R22 freon manufacturing which all units require
 - ADA noncompliance, including but not limited to doors, sinks, toilets, hallways, stage ramp, and door hardware
 - Security, specifically at main entrance
 - Classroom walls offer no fire breaks

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- Toilet layouts distract from instruction and require loss of instructional time for whole classrooms to use
 - Library is not enclosed
 - Cafeteria is not enclosed
 - No room for Spanish instruction
 - Two speech teachers using one, small space
 - Ad hoc book rooms use necessary intervention and instructional space
 - No designated space for targeted academic intervention
 - Electrical panels and transformers are located within offices and should retain their own space
 - Kitchen has no air conditioning
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- **What will the cost of the renovation include?**
 - HVAC systems
 - Power
 - Lighting
 - Fire alarm
 - Security system
 - Master clock
 - Public address system
 - Plumbing upgrades
 - ADA compliance
 - Stud walls
 - Relocation of main office
 - Relocation of nurse clinic and instructional intervention rooms
 - Configuration of Main Street reducing circulation and connection to all major spaces
 - Restoration of central pod collaboration spaces
 - Designated electrical/IDF rooms
 - 7 classrooms per pod for kindergarten, first and second grades
 - Music room with direct stage access will be housed in kindergarten
 - PreK pod will house 2 pre-k classrooms and 2 SPED classrooms
 - Air conditioning for kitchen
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- **What kind of disruption will there be to everyday classes during construction?**

Renovation will be unphased with no student occupancy. PreK and kindergarten students will be relocated to the School Board Office. Grade 1 will be relocated to the current alternative education building on the

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WYES campus and grade 2 will be housed within WYES. Alternative education will move to a site to be determined.

- **Will the renovated building be energy efficient?**
 - The free cooling cycle on the rooftop HVAC units is not functional, wasting energy
 - More efficient transformers
 - LED lighting
 - Every classroom will have Plasma Air filters installed. These are energy efficient and highly effective on pollutants including bacteria, viruses, mold spores, odors, and VOCs.

- **What economical technologies will be used in the building? Will this save us money?**

From the architects:

Our cost estimates and fee proposals do not include participation in any “green” or sustainable certification programs (like LEED). However, where practical and cost effective, we include energy efficient and water efficient strategies in our work. Our thoughts are that Madison Primary should include:

- *HVAC equipment that utilizes VRF technology (where possible) and modestly high efficiency equipment everywhere. Typically, VRF equipment operates on about 60% - 70% of the electric consumption of conventional systems. The additional cost generally pays for itself in three years. However, in the case of MCPS, installation of traditional HVAC systems would require structural modification for VAV boxes which would have its own costs. Therefore, we think the VRF technology in this case is essentially the same cost as conventional equipment but with improved energy costs. This was amplified in the Ascent report. We would be very hesitant to estimate savings though, over your current system. For one thing, it isn't fair to compare the new system to your old system in terms of energy costs, because your old system is not compliant with current energy codes with respect to fresh air intake. The conditioning of fresh air taken directly in from the outside air is where most of your energy is spent. So the relevant comparison is between the proposed code-compliant VRF system, and a theoretical code-compliant conventional system. We can say this VRF system will save you considerable energy cost over a contemporary code-compliant conventional HVAC system. We would be reluctant to estimate cost savings over your current system. Your existing system may be costing*

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you a lot less than it should. You can actually save a lot on energy costs when some of your equipment isn't even working for parts of the year, so it just isn't an apples to apples comparison.

- *LED lighting, which operates on a fraction of the electrical consumption of fluorescent lighting. Cost of LED and fluorescent is essentially equal, but we would expect to see the energy required to power your LED lighting to be less than 50% that required for your current fluorescent lighting.*
 - *Use of motion sensors to turn off lighting when rooms are unoccupied.*
 - *Low flow water fixtures. As you know we are not making revisions to your kitchen, but the savings coming from use of low flow faucets and toilets and operation by electronic eye for faucet operation and toilet flushing will add to the savings. We would expect to see reductions in your water consumption and costs.*
 - *Low VOC paints and coatings. We will specify only paints, stains, coatings, and adhesives, that have minimal or no emissions of volatile organic compounds (VOCs) which improves indoor air quality.*
 - *LED will save at least 50% of electrical cost*
 - *Electric water coolers*
 - *HVAC dedicated outside air units provide 75% reduction in cooling and heating*
 - *Direct digital control system (programmable interface) will save energy and utility costs*
 - *Use of motion sensors to turn off lighting when rooms are unoccupied*
 - *Low VOC paints and coatings that have minimal or no emissions of volatile organic compounds (VOCs) which improves indoor air quality*
- **What security measures/systems will be added?**
 - Relocation of offices and corridors to ensure optimal site lines
 - Secure entry
 - Enclosing cafeteria and media center/library with walls
 - Fire alarm
 - Security system
 - Master clock
 - Public address system
 - Fire walls
 - Electrical panels located in separate spaces
 - Lit exit signs
 - **How many work requests were placed regarding heating and cooling at MPS?**

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- 2018 - 44 noting issues such as no heat, no A/C, fans run with no cooling
 - 2017 - 14
 - The gym reports no A/C or heat often. Two replacement HVAC units are scheduled to be installed in the summer of 2019 using CIP funds.

- **Why do we need to do this now? What will happen if we wait? Can local vendors assist?**
 - The HVAC system is past its life expectancy. If we do not replace, we are creating a scenario of uninhabitability. Parts for the existing units are no longer being manufactured. R22 freon has been phased out of production; units are not recommended to be retrofitted. Many of the existing units are deteriorated past repair requiring replacement. MCPS contracts with Riddleberger for periodic maintenance; however, most maintenance and repairs are conducted in house with an employee who has a masters certification in HVAC.

- **Can only the HVAC work be completed?**
 - Due to building and safety regulations, replacing the existing HVAC units requires the installation of fire walls and leads to meet the requirements of ADA compliance, electrical outlet building codes, and updated emergency systems. Therefore, HVAC, ADA, electrical upgrades, and updated emergency systems are tied together.

- **How does the renovation project consider the long-term needs of the students and the community?**
 - This renovation is expected to last 20-25 years before major updates are needed.

- **Why renovate the existing building instead of build a new building?**
 - Due to the soundness of the exterior structure and the availability of financial resources, remodeling the existing building is more cost effective at this time than initiating new construction.

- **Could the renovation be phased?**
 - Architect reply: Without study we can confidently state that the total cost of the project will increase by accomplishing the work in incremental steps. Each phase will require bidding, permits, special inspections, hazardous materials removal, and new mobilization costs for each general contractor as well as all their subcontractors. Additionally, the

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economy of scale that comes with a larger project will be lost and inflation will nudge costs upward.

- For our smallest students, the interruption over multiple years, will be instructionally detrimental.
 - It would be impossible or extremely expensive to match components, such as HVAC units, lights, toilets/sinks, carpet, furniture, doors, hardware, etc. over multiple years and potentially multiple contractors, creating a sole source environment.
 - New and old emergency systems would be required to run simultaneously. What would happen to emergency systems with the building code implications if the renovation stopped prior to completion of the entire building?
 - Based upon building code updates, some parts of the renovation could fall under different codes and requirements.
 - Areas in which the fire alarm system is not working during renovation require frequently documented fire building walks. This requires a great deal of administration time.
 - Each time a new contractor is hired, a background check would have to be completed. This will add to costs.
 - Phasing denies the ability to hold one contractor responsible. The potential would be there for each contractor to blame former contractors for any problems.
 - The architects do not estimate our HVAC equipment will last for the amount of time required to complete the project using the phased approach. The HVAC units are not candidates for retrofitting once R22 freon is no longer available. If the building becomes uninhabitable, where will the children be educated?
- **How much will this cost?**
Estimated costs as of December 2018 are:
 - A&E Services \$899,011
 - Construction and soft costs \$11 to \$13 million (Definitive costs are determined during design and development.)
 - These costs increase with time as construction costs escalate.
 - Additional costs include asbestos testing and monitoring, permits, and clerk of the works/construction manager at risk salary.
 - **How much new furniture will need to be purchased for this project?**
The newly renovated school should reflect the division's goals for the future. We want multi-functional, durable furniture. Furniture should be easily movable,

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facilitate group and individual learning, and support various learning styles. Furniture should also take connections to WiFi and power source into consideration. Most cabinets are built in allowing for maximum storage and organization. Furniture in good condition will be refurbished and used within the division.

Architect's projection: *We can estimate, but as I've said before, this could be VERY broad. For a 50,000 s.f. school that already has a full complement of furniture, this might be anywhere from \$0 (reuse all existing) up to \$460,000 (about \$10/sf for the portions we'd refurbish).*

Furniture Selection A/E Fees	up to	\$92,000.00
Furniture Procurement	up to	\$460,000.00

- **What is the timetable for the renovation?**
Requests for Qualifications will be accepted from October 15 - November 15, 2019. General contractor bids are expected to be accepted in late January 2020. Renovation will begin June 2020 and is expected to continue through June 2021.

- **Who is accountable for the costs associated with this project?**
 - Skanska and MCPS

- **What might a draft renovation schematic depict?**

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