High School Facilities Study and Assessment For Madison Metropolitan School District



Memorial High School

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Long Range Master Plan:

James Madison Memorial High School

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Introduction / Methodology

INTRODUCTION

The facility condition report and the athletic facility assessment reports completed in 2017 created a great framework for identifying areas of each building which require improvement. Concurrent with the creation of the Educational Facility Condition Assessment, MMSD established a new Strategic Framework to guide all initiatives in the school district. To accomplish the vision, any improvement to the buildings must align with the values: Excellence, Belonging, Racial Equity, Voice, Focus, and Creativity.

As the next step in developing a Long Range Master Plan, MMSD selected Zimmerman Architectural Studios to join the team and analyze James Madison Memorial High School. The study not only reviews what physical improvements (maintenance) are needed, but how the improvements will assist the District in preparing every child to graduate ready for college, career and community. The improvements need to seamlessly compliment and bolsters these values.

METHODOLOGY

To accomplish this task, our team executed a three phased approach.

- 1. The first phase was to review the physical condition of the building. How is the current building restricting MMSD from providing a quality learning environment? Mechanical, electrical, plumbing and all architectural elements have been reviewed at the facility. Life Safety codes continue to change and the safety and security of staff, students and community need to be addressed. The Team met with the following 2 groups from MMSD to gain input regarding the ongoing care and maintenance of the buildings:
 - a. Building Services
 - b. Building Trades

Multiple site visits also occurred for onsite observation and analysis.

Sections two and three identify the obstacles the existing build and site produce.

- 2. Simply improving the physical environment will not meet the stated goals and vision. The Strategic Framework must guide the improvements. To gain a better understanding of the educational direction, the Zimmerman team met with the following groups of District's Leadership Team and department heads:
 - a. Central Office Leadership Team
 - b. Instructional Team
 - c. Technology Team
 - d. Music and Arts
 - e. CTE Career and Technical Education
 - f. Athletics

Each group was asked what works, what doesn't work, what is absolutely needed, and what would be nice to have to assist them in providing a quality education.

The Community is a large and integral part of any discussion on how the building can engage users groups beyond staff and students. Meeting with the following groups, we gained a better understanding of the dynamics of the MMSD/Community relationship.

- a. Athletics & Co-Curricular
- b. MSCR

Sections four and five document our discussions.



3.	Once all information was gathered, the team worked to develop a conceptual design to address
	the issues, concerns, ideas and thoughts presented during the meetings. The plan is developed to
	include building maintenance and renewal, plus building additions. Estimated costs are also
	provided.

Section One: Introductions and Acknowledgements

ZAS Team

- Doug Barnes, AIA, NCARB, Vice President | Principal
- Greg Strand, Educational Planner, Designer
- Riley McKenzie, Architectural Support
- Honey Szymanski, Marketing Coordinator
- Ceil Wudy, Administrative Assistant
- Ann Lescrenier, Administrative Assistant

MMSD Team

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PRA Team – Portions of the FCI document integrated into this document were completed by PRA in 2017



Section Two: Facility Observations and Assessments

<u>James Madison Memorial High School:</u> 201 S Gammon Road, Madison WI 53717

Site = 69.48 Acres Building Area = 365,868 sf; Original Construction 1960 Additions 1967, 1970, 1988, 1992, 1998, & 2001

FCI COMPOSITE SUMMARY

Site Elements	С
Building Envelope	С
Life Safety	В
Accessibility	С
Interior Finishes	С
Specialty Areas/Needs	С
Mechanical Systems	D
Electrical Systems	С
Technology Systems	В
Aesthetics	С
Sustainability & Energy Efficiency	С
COMPOSITE CDADE	_





Facility Observations and Assessments

Leadership Building Services Building Trades

SITE ELEMENTS

Asphalt Paving: Memorial Way drive has asphalt surface deterioration in several areas. The staff parking on Memorial Drive floods.

Parking & Traffic Circulation: Congested; exiting issues during peak use.

Concrete Walks: Slab separation/heaving has occurred throughout site. Large cracks near front entry.

Courtyards: Pavement in courtyards present settlement problems.

Landscaping: Site's landscaping has been maintained.

Fencing: Adequate condition throughout site.

Steps: There is concrete spalling at stairs.

Railings: Railing is missing at greenhouse patio's ledge.

Sports Fields: Tennis courts were recently resurfaced. Softball field backstop is not to proper height. Bleacher Structure is deteriorating. Lighting poles are located within player's field.

Site Accessibility (Ramps, Handicap Parking, Van): Bleachers and press box not accessible.

Buses and Parent Drop-Off: Busses drop students off on Gammon, parents use the lane adjacent to the main entrance.

Fire Truck Access: Firetruck lane present around site.

Dumpsters: Enclosure present. Fence is in good condition.

Water: The site drains toward the building. Flooding occurs during large rain events.

BUILDING ENVELOPE

Brick: Brick is spalling in numerous locations. Several cracks in precast concrete throughout site.

Entry Doors: Most auxiliary doors are rusted and have corroded at bottom mullions. Main entry doors at fieldhouse have issues with operation. Framing is not strong enough for doors.

Windows: Single pane windows at library causes cooling issues. Broken glazing at fieldhouse above exterior side doors.

Louvers: Good condition with no major damage.

Miscellaneous Soffit Trim and Gravel Stops: Water damage at fieldhouse

Roof: Temporary roofing layer at upper gymnasium/pool has exceeded projected life expectancy.

Exterior Doors: Doors at fieldhouse are in poor condition with rust issues at base of frames.

LIFE SAFETY

Fire Alarm and Fire Detection: Pull stations are located throughout the facility.



Fire Protection, Sprinkler System: Located above auditorium on stage. Wet system base. Installed in 1990 and has exceeded projected life expectancy.

Egress: Long corridors need better signage.

ACCESSIBILITY FOR DISABLED

Elevator/Lift: Good to excellent condition, recently replaced. Pool lift in good condition.

Ramp: Corridor ramp is accessible. No extension on railing.

Toilet Rooms: Sinks are not accessible. Narrow noncompliant doors at upper floors. Unisex locker/changing room & pool shower rooms are not accessible.

Automatic Entrances: Adequate clearance. Push plate hardware.

Door Clearances: Many classroom entrances do not meet ADA requirements for proper space between latch and wall. Bathroom doors in upper level are not ADA accessible.

Door Hardware: Knob base hardware at courtyard and classrooms.

Casework: Most classroom casework heights noted as less than 34 inches.

Sink Access at Casework: Not accessible with front approach, or hardware at cooking and science classrooms.

Drinking Fountains: Not accessible on upper floors.

Staff Lounge: Staff toilet not ADA complaint.

Stairs: No railing extensions. Distance between stiles exceed the 4" maximum spacing. Slip covers are coming off on step portions. No lift assistance present at stairs. The 2"x8" handrail is not ADA compliant

Stage: Stage is accessible from stairs in the corridors. There is no same level entry to stage or back stage.

INTERIOR FINISHES

Flooring: VCT flooring in poor to adequate condition. Cracked tiles are present throughout facility.

Ceilings: Stained and cracked with some tiles are falling off throughout facility.

Walls: Paint is in adequate to good condition. Question if older paint has lead contained in it.

Casework: Original casework. Delamination, stains, and chips are present on finish

Doors: Adequate condition with minor marks at kick plates.

Marker Boards: Located in several classrooms. No severe damage present, a few small marks and scratches.

Corridor Lockers/Cubbies: Paint is in good condition.

Toilet Partitions: Partitions are floor mounted with rust forming at the floor level. Many partitions are scratched and damaged.

Shades: Shades are difficult to operate, or do not work at all. Finish is poor to adequate condition with visible stains. Shades have missing pull strings. Sheets are used as shades in some classrooms.

SPECIALTY AREAS/NEEDS

Secure Entrance: Locked from outside and visible from receptionist desk. Automatic hardware is controlled by receptionist. Knob based hardware is unfastened and breaks at courtyard entrances.



Classrooms Locks: Not present on interior portion of doors. Knob base hardware.

Security Cameras: No issues or concerns with system clarity.

Administration: Carpet is worn and in adequate condition. Ceiling tiles are stained at exhaust vents. Lights have yellow film on covers.

Mail Room/Staff Work: Ceiling is in poor condition with missing tiles. Delaminated casework with few missing hardware (handles).

Stage: Flooring is in good condition with typical wear and tear.

Gymnasium: Finishes in adequate to good condition. Locking hardware in fieldhouse is in poor condition for storage.

Gym Locker/Shower: Outdated with dented lockers. Flooring is in adequate condition. There is not enough space for all sport teams.

Staff Lounge: Flooring is worn. Ceiling tiles are stained at exhaust vents. Lights have yellow film on covers. Staff toilet not ADA complaint. Countertop surfaces are in adequate condition.

Nurse: Four (4) beds present in area. Full size refrigerator. Toilet rooms are not accessible. Flooring is in adequate condition. Lighting adequate for space. Overall finishes are in adequate condition. Ceiling is in poor condition.

Cafeteria: Finishes are in good condition. Typical wear and tear on surfaces. Server windows are not efficient for space. Current one hour lunch creates issues with seating for student body, not enough space for all students.

Kitchen: Cooler in café (self-serve). Dry food storage shelves are in adequate condition, and here is adequate storage for freezer and coolers. New ovens have been recently installed. Warmer carts adequate for space. 3-bay sink in main kitchen area. Garage disposal was noted as not working during assessment. General flooring is in good condition. Original tiles in storage room with few chips and cracks.

After School Program: Most of facility is used for after school programs.

Art Room: Finishes are worn and equipment is older.

Music: The carpet is worn. Lighting is dim for the space. Light covers have a film covering them. Wooden panels on wall are delaminating. No acoustical tiles are present in string instrument room. Insufficient storage.

Library/IMC: Bookshelves are in good condition with some delamination occurring.

Pool: Smaller space then needed. More area preferred around pool for stretching, storage, and observing.

Auditorium: T8 lighting is not efficient for space. Sound system is in adequate condition but there isn't a sound room.

Dance Studio: Door threshold issue with height accessibility. Flooring finish at central area of room show signs of typical wear and tear. Flooring has heaving issues.

Wood Shop: Dust collector needs to be upgraded. Not enough power. Lacking in storage space.

Engineer Tech Lab: Concrete floor is in adequate condition. Exposed ceiling. Bradley style sink with older hardware faucet. Space is inadequate in size for equipment.

Planetarium Room: Ventilation and overheating issues



MECHANICAL SYSTEMS

Boiler: 1965 Cleaver Brooks equipment and has exceeded projected life expectancy.

Air Handlers: Roof top system installed in 1998 and has exceeded projected life expectancy. Central packaged system installed in various years and has exceeded projected life expectancy. Coils recently replaced.

Tunnels: Mechanical tunnels prone to flooding; poor access for servicing & cramped full of utilities/piping

Power Roof Ventilator: Various installation dates and has exceeded projected life expectancy. Pool ventilator replaced recently.

Cabinet Unit heaters, Convectors and Baseboard Radiation: Cabinet unit heaters installed in various years and has exceeded projected life expectancy. Baseboard radiation installed in various years and has exceeded projected life expectancy. Library has heating issues (not enough heat). Four control units.

HVAC Pumps and Valves: Runs in good condition. Recently replaced.

Air Conditioning: Roof top system installed in 1998 and has exceeded projected life expectancy.

Temperature Controls: Various installation dates and has exceeded projected life expectancy. Electronic and pneumatic mix type system.

Fire Protection: Stage/backstage only portion of the entire facility to have a sprinkler system

Plumbing Fixtures: Various installation dates and has exceeded projected life expectancy. Approximately 75% original fixtures.

Water Heater: Domestic water heater installed recently. Gas fired system. Expansion hot water heating tank installed in 1965 and has exceeded projected life expectancy. Temperature control and air pressure drops periodically resulting in water being too hot.

Water Softener: Installed recently and has 4 years of useful life remaining.

Plumbing Pumps and Piping:

- Chilled water and condenser water circulation pump installed in 2000 and has 4 years of useful life remaining. Heating hot water and swimming pool circulation pump installed recently and has 4 years of useful life remaining.
- Chilled Piping installed in various years and most have exceeded projected life expectancy. Buried chilled water piping are original with constant maintenance and are failing.

Domestic Hot Water Piping: Pipes in main tunnel need replacement.

ELECTRICAL SYSTEMS

Switchgear: A-wing area installed recently and has 4 years of useful life remaining. Field house & cafeteria installed in 2011 and have 15 years of useful life remaining. Other areas installed in various years and most have exceeded their life expectancy. Located in cool area. Adequate in size.

Service: The Service Load is sufficient for the schools need. 480v and 208v requires special maintenance.

Panels: Various installation dates and have exceeded projected life expectancy.

Transformer: Adequate, S&C Electric Company system.

Generator: Installed in 1995 and has 4 years of useful life remaining.

Lighting: Various installation dates and multiple varieties of style create inadequate lighting. Most have exceeded projected life expectancy.

Power Outlets: Various installation dates and have exceeded projected life expectancy.



TECHNOLOGY SYSTEMS (Phone, Data, Communications)

PA System: Installed in 2006 and has 5 years of useful life remaining. Athletic & lecture rooms have been installed in various years and have exceeded their life expectancy.

Phone: Installed in 2001 and has exceeded projected life expectancy.

Data Outlet: Adequate amount for facility.

Wireless: Adequate coverage throughout facility.

AESTHETICS

Site: Overall site is in good condition. Landscaping has been maintained. Courtyard paving areas are in need of replacement due to large cracking and pavement separation.

Exterior Façade: Cracking occurring on façade throughout facility. Doors at fieldhouse are in poor condition.

Interior Spaces: Ceilings are in poor condition throughout facility. The window shade finishes are in poor condition with visible stains and tears. Most casework has minor delamination issues.

SUSTAINABILITY AND ENERGY EFFICIENCY

Windows: Most windows are double pane. Single pane windows at library causes cooling issues. Installed in various years and most have 5 years of useful life remaining.

Wall Types: The building was constructed in 1966, utilizing mostly original composition of CMU blocking.

Roof Type: Overall roof in adequate to good condition. Temporary roofing layer at upper gymnasium/pool has exceeded projected life expectancy.

Energy Efficiency of MEP Systems: Most equipment is original and life expectancy has been exceeded.



Section Three: Building Functionality

The following drawings display the campus and the building in their current conditions. Areas that will be addressed, along with notes identifying the deficiencies as indicated in the Long Range Master Plan, are identified on these drawings.

SITE DEFICIENCIES AND OBSERVATIONS

- Parking lot grades pitch toward the building(s).
- Site lighting should be improved.
- All athletic fields are in need upgrades (field turf, lighting, support buildings).
- Mansfield Stadium is in need of a complete renovation
- Baseball field grading is an issue with the outfield being lower in elevation than the infield.
- Dugouts are in need of improvement

BUILDING DEFICIENCIES AND OBSERVATIONS

- All building mechanicals are in need of replacement.
- The piping in the tunnel is in need of replacement.
- The 480v and 208v electrical system should be replaced.
- The theater is old and outdated. The stage is not ADA compliant.
- Music classrooms are too small and lack proper instrument storage.
- The Science Classrooms are old, outdated and too small to accommodate a class of 30 students and a lab. All Science rooms are in need of upgrading.
- All restrooms and locker rooms are in need of upgrading.
- Classroom finishes are in need to be updated/upgraded.





James Madison Memorial High School S. Gammon Rd., Madison, Wi



SITE PLAN



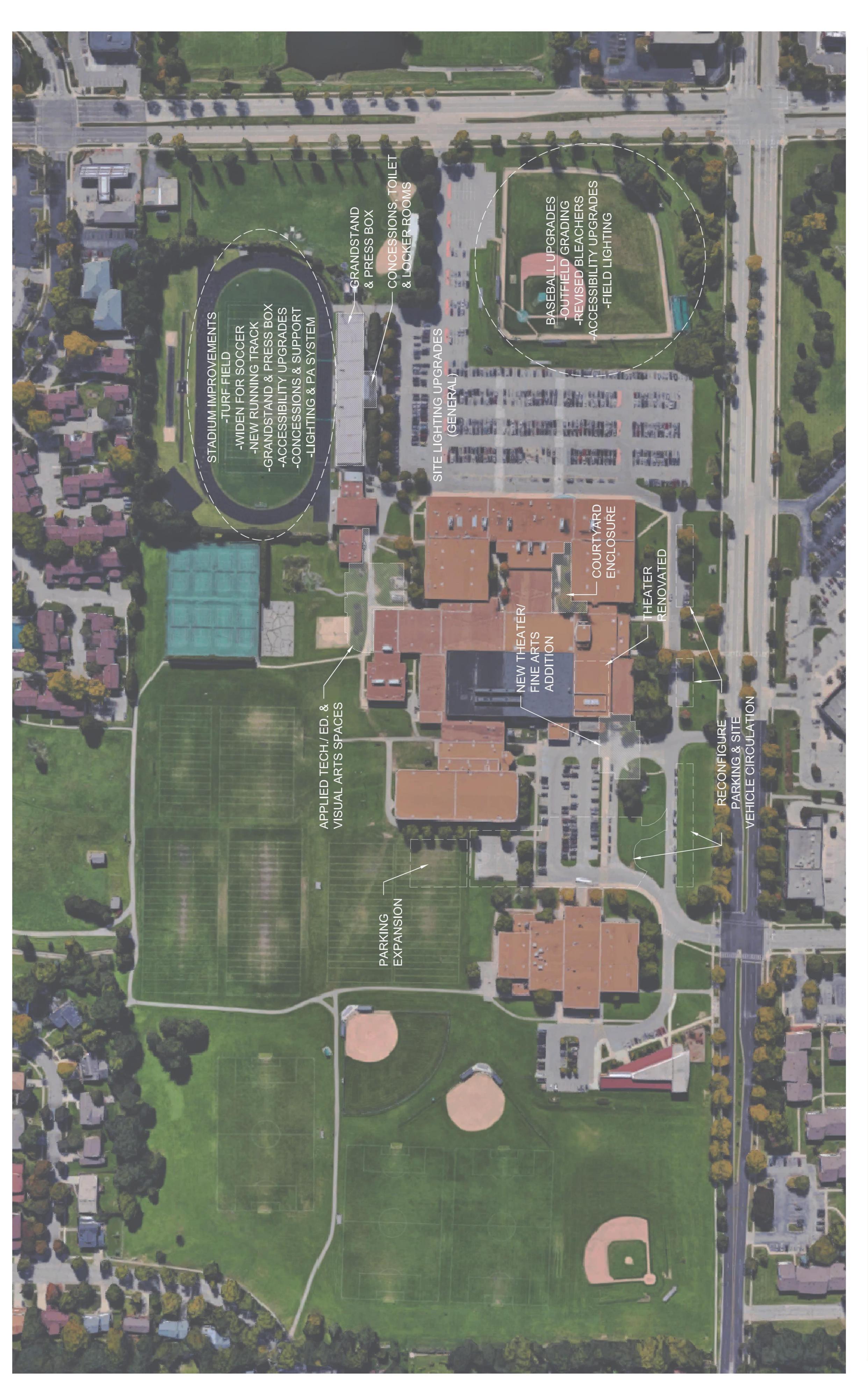




SITE PLAN

James Madison Memorial High School S. Gammon Rd., Madson, W

ISSUES & OBSERVATIONS



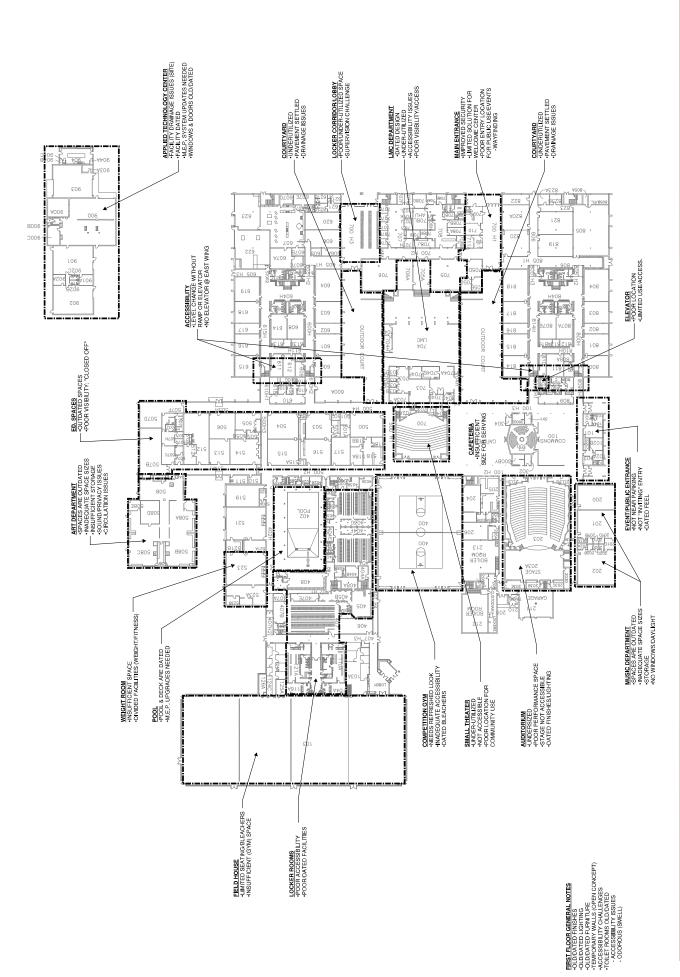


SITE OPPORTUNITIES

James Madison Memorial High School

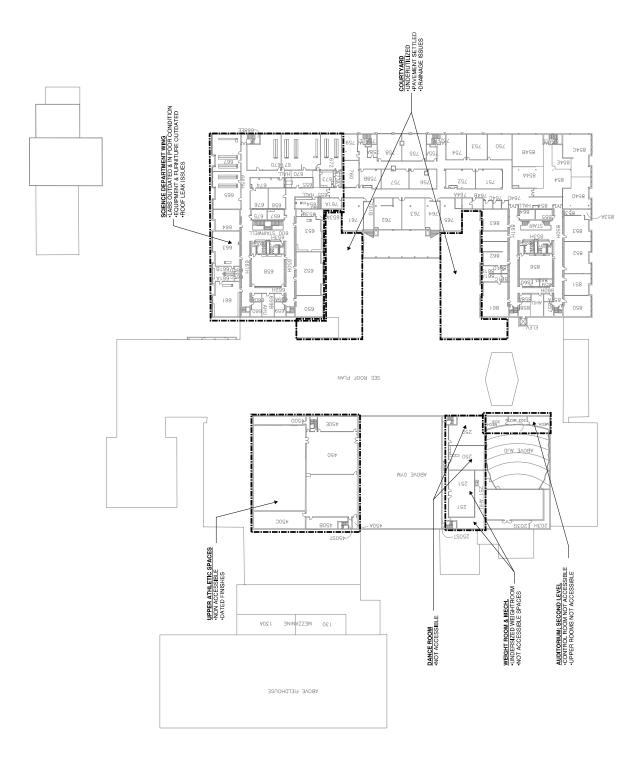


s. Gammon Rd., Madison, W.



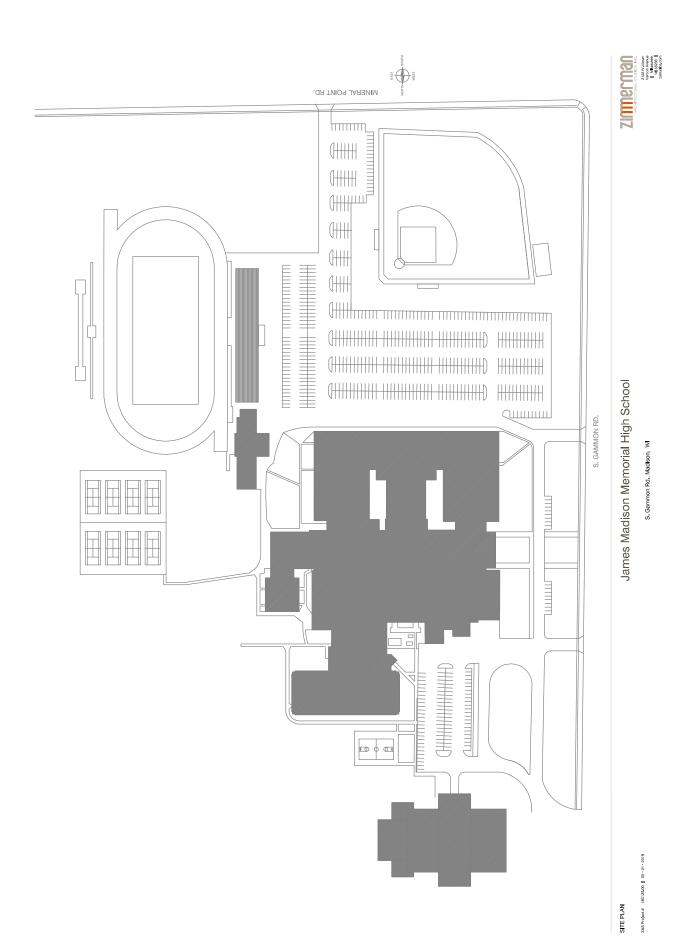
S. Gammon Rd., Madison, WI

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S. Gammon Rd., Madison, WI

SECOND FLOOR GENERAL NOTES
OLDORATED FINISHES
OLDORATED FINISHES
OLDORATED FINISHES
TEMPORARY WALLS (DEEN CONCEPT)
TEMPORARY WALLS (DEEN CONCEPT)
TOTALET ROOMS CLICIANED
TOTALET ROOMS (SMELL)



Section Four: Educational Spaces

INSTRUCTIONAL TEAM

NOTED DEFICIENCIES:

- The wayfinding in the school needs to be improved. There are long narrow corridors, many that are not accessible.
- OTP/PT learning environments need to be improved.
- The welcome center is better than most, but still needs work.
- Virtual/on-line classrooms are in the future.
- Teacher collaboration space is needed.
- The LMC should be opened up.
- The building and furniture look and feel dated.

DESIGN CONSIDERATIONS

- While the main entrance and welcome center are located adjacent to the parking lot, the flow through the building is instantly confused by the maze of corridors. By enclosing the courtyard, the welcome center becomes the Hub of the school, attaching the offices, LMC and collaborative learning spaces.
- Learning environments for students with all disabilities (hearing, behavior, mental health, and therapeutic) should be created, with expanded day Schools options taken into account.
- All classrooms need to be updated, including the furniture that allows each classroom to have flexibility. Classrooms should be able to address the visual, auditory, kinesthetic, and verbal learning styles.
- Create flexible learning options including on-line, ITV (Interactive Television Classes) or a blend of the options.

TECHNOLOGY TEAM

NOTED DEFICIENCIES:

- Need flexible spaces for learning:
 - o Groups; Individual study
 - Coffee Shop in Library
- More user friendly spaces are needed.
- Classrooms are too confined, at a minimum, more glass should be used. Bring learning to the corridors.
- The LMC is a good size, but it is dark, better lighting is needed
- The LMC needs to be more technology inclusive
- MMSD is moving to a 1 1 technology use with Chromebook
- More outlets overall need access to power
- Secure work space(s) for technicians is needed



MUSIC AND ARTS

NOTED DEFICIENCIES:

- There is no internal connection from one end of the backstage to the other.
- Theater space dated; old finishes; tired space; poor lighting & acoustics.
- Theater not conducive to performance space requirements (designed for assembly).
- Rigging is original and outdated.
- The Stage is not ADA Accessible.
- Need a ladder to gain access into the projection room.
- HVAC is loud in Auditorium, and is turned off for some performances.
- The Small theater is not well utilized or located.
- There is a lack of proper sized instrument storage spaces in Music classrooms.
- The Music Classrooms are too small for the number of students and their instruments.
- Acoustics in music rooms an issue with parallel walls.
- Practice rooms lack proper size and visual security.
- Fine Arts wing lack room separation; Joint access through classroom space.
- Art Classrooms lack proper ventilation. Sinks do not have proper clay traps.
- Art room(s) lack dedicated kiln room; adequate storage.
- There is no good space for student display of art.

DESIGN CONSIDERATIONS

- The Theater could be completely refurbished with a balcony constructed to provide an additional seating.
- A new Fine Arts addition could be developed on the Southwest side of the building. The addition would create appropriate sized Choral, Band, and practice rooms.
- Existing Music rooms will be renovated into a larger Orchestra Room
- The circulation in the Visual Art classrooms will be resolved, with better ventilation and a separate kiln room.
- A two story Visual Arts and Applied technology addition on the east side of the building will connect the existing Applied Technology to the main building.

CTE - CAREER AND TECHNICAL EDUCATION

NOTED DEFICIENCIES:

- Classroom spaces are small and old. Everything looks exactly what looked like 20, 30 40+ years ago.
 New furniture must be flexible.
- Learning is hidden and compartmentalized; the design needs to unveil learning to the rest of the building.
- Circulation is a maze, and the long and narrow corridors are a security issue.
- Lunch room space(s) better utilized; open up.
- Student Achievement Center should be in the main lobby/open area.
- Science Labs & spaces very dated poor condition.
- Science rooms & labs are undersized with support space lacking.
- The building needs to meet more of the student's educational needs.
- Virtual learning capabilities/spaces are needed.
- The Study Hall is tucked in corner; a better location would place it more central to the space.
- Appropriate sized classrooms for current curriculum instruction.
- Improved accessibility and ADA compliance (entrances, casework, sinks, etc.).
- Library space dated; furniture & layout dated and the space functionality does not meet the current educational needs..
- Tech Ed spaces in need of updating; rethinking spaces for usage.



CONSIDERATIONS:

- The two proposed additions would solve many of the issues. Enclosing the courtyard will create a
 more active HUB, linking the welcome center, LMC, and the proposed fine arts addition.
- The addition, along with the new courtyard learning HUB, will provide for a better method of securing the rest of the building from after school and weekend activities.



Section Five: Athletic and Community Spaces

ATHLETICS AND CO-CURRICULAR

NOTED DEFICIENCIES:

- Athletic fields are worn due to heavy use.
- Locker rooms are in terrible condition.
- The weight room on the second floor is not ADA accessible.
- Weight rooms should be consolidated (2 into 1 larger space).
- The pool needs to be upgraded.
- The second floor corridor between the gym and the weight room is a safety concern.
- Fields need to have Turf to be competitive with neighboring Districts.
- Dug-outs are in need of attention.
- The crown in the football field is difficult for soccer.
- Mansfield Stadium needs to be improved.
- Teams need to stop practice at 7:00 to allow MSCR time to practice.
- All fields should be irrigated.

DESIGN CONSIDERATIONS:

- To remain competitive in the Big 8 Conference, and retain the quality athletic talent Madison youth have developed, Mansfield Stadium and all athletic venues need to be replaced and/or completely renovated. With the structure of the stadium is solid stadium but showing signs of age. The structure will be refurbished, new bleachers that are ADA compliant will be installed. An enhanced press box, a wider track, artificial athletic turf, upgraded locker rooms, and an improved lighting and sound system would all be in consideration. The concession building would also be upgraded.
- The baseball field would be completely regraded. The outfield would not gradually slope away from the infield. The dugouts will be upgraded.
- The Weight Rooms will be consolidated on the main floor.
- · All locker rooms are in need of upgrading.

MSCR & COMMUNITY USE

NOTED DEFICIENCIES:

- Pool needs a facelift. Pool is hard to maintain when it is being used throughout the year.
- Better Security is needed. MSCR utilizes the building after 7:00 PM.
- Club sports and other organizations use the spaces, which only congest the utilization.
- High community use creates additional wear and tear on facilities; lack funds (Fund 180) to keep up with usage needs.
- The current MSCR Offices are in the Hoyt Building, not associated with any of the high schools where
 most of the activity occurs. Current office at Memorial is too small.
- Poor visitor/user wayfinding, long corridors are confusing and a security risk.
- The current dividers are old and failing.

DESIGN CONSIDERATIONS

 The enhanced Welcome center and enclosed courtyard will greatly improve the wayfinding for visitors, and will allow portions of the school to be secured.



Section Six: Design Recommendations and Options

CAPITAL MAINTENANCE

- Mechanical system upgrades (high energy efficiency, climate control, reliability).
- Building envelope maintenance (masonry repairs, windows, roof membrane).
- Finishes (floors, ceilings, walls) to be refreshed.
- Life safety systems will be upgraded (fire alarms and PA).
- Fire sprinkling throughout the facility will be added.
- Update/refresh all restrooms; develop all-gender restroom facilities.
- Site work (landscaping plan, signage, asphalt repair, sidewalks and stairs, storm water control).

BUILDING FUNCTIONALITY

- Parking and vehicle circulation to be improved.
- The placement/consolidation of student support areas and Welcome Center.
- A new central spine elevator and second floor corridor shall provide ADA accessibility to the new Balcony, Dance room and upper gym.
- The existing second floor weight room will be renovated as an additional classroom space.
- New Small Learning Communities, collaboration spaces will be created.
- Better support of community partnerships and usage.
- Implement Security improvements.

EDUCATIONAL SPACES

- Update all Science Lab spaces.
- LMC to be designed for increased technology and the flexible use of space.
- Flexible Classrooms and Instructional spaces to be created by increasing classroom size (where possible) and the utilization of new furniture.
- New Fine Arts and Music addition will be developed providing (2) new classrooms, and practice rooms sized appropriately for the curriculum.
- Current music rooms will be renovated for continued use in the music department, resized for the proposed program.
- The theater will be refurbished to meet current standards. A balcony will be constructed for additional capacity.
- A 2 story Visual Arts and applied technology addition will be constructed. The addition will include seven (7) new classrooms, support spaces and a corridor to connect the main building to the existing Applied Tech. building.
- All spaces to be accessible.

ATHLETIC & COMMUNITY

- Most fields are overused and worn; replace grass and add irrigation
- Locker rooms need complete overhaul (accessibility, all-gender, Title 9).
- Insufficient practice spaces.
- Competition spaces need refresh and require accessibility upgrades.
- Mansfield Stadium should be refurbished/renovated.
- The pool is in need of renovation.



1. Capital Maintenance

- a. Roofs (replacement)
- b. Replace Exterior Doors
- c. Brick Repair/Tuckpointing
- d. Window Replacement
- e. Restroom Upgrades
- f. Locker Room Upgrades
- g. Interior Piping Replacement
- h. Conversion to Hot Water
- i. Remove 480v & 208v
- j. Replace Existing wiring
- k. Replace chillers, convert to DX & connect air handlers
- I. Replace air handlers with high efficiency systems
- m. Replace Existing roof top units
- n. Replace make-up tank for the pool
- o. Convert all mechanical controls to DDC
- p. Replace domestic tank heater with high efficiency system
- q. Separate cold & hot water coils/valves
- Convert existing piping to galvanized or copper
- s. Replace underfloor storm piping A & B wings
- t. Replace Underground piping
- u. Add AC systems for recreation spaces
- v. Improved Site Drainage
- w. Hard Surface Repair
- x. Replace Auto shop building mechanical systems

2. Building Functionality

- a. ADA Improvements
- b. Safety and Security Upgrades
- c. Commons Upgrades
- d. Signage and Branding
- e. Welcome Center Renovation/office consolidation
- f. Fire Suppression
- g. New Elevators
- h. Courtyard Improvements
- i. Solar Panels

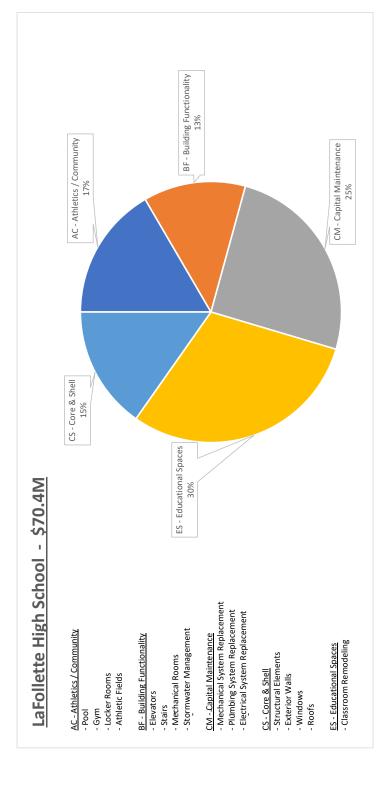
3. Educational Spaces

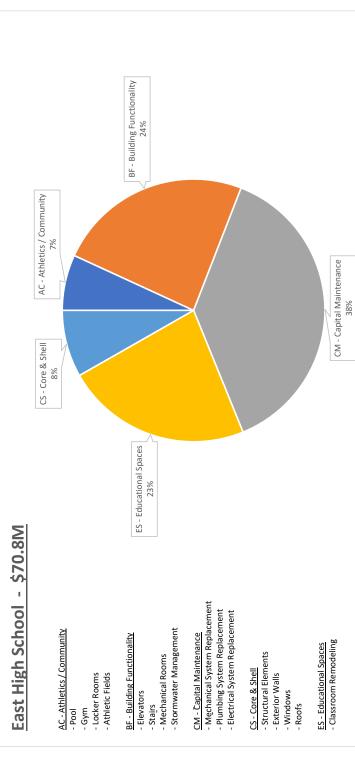
- a. Updated Science rooms & Labs space (equipment, furnishings, utilities)
- b. Classroom Upgrades
- c. New Fine Arts and Music addition will be developed providing (2) new classrooms, and practice rooms sized appropriately for the curriculum.
- d. A 2 story Visual Arts and applied technology addition will be constructed. The addition will include seven (7) new classrooms, support spaces and a corridor to connect the main building to the existing Applied Tech. building.
- e. Furniture
- f. Theater to be refurbished with balcony added
- g. Student Collaboration Spaces
- h. Renovate Small Theater into Flexible Instructional Space
- i. STEM/STEAM Classrooms
- j. Library / LMC Renovation
- k. Enclosed Courtyard for Collaboration spaces
- I. CTE Renovations
- m. Renovation of Existing 2nd Floor Weight Room to Flexible Instructional Spaces

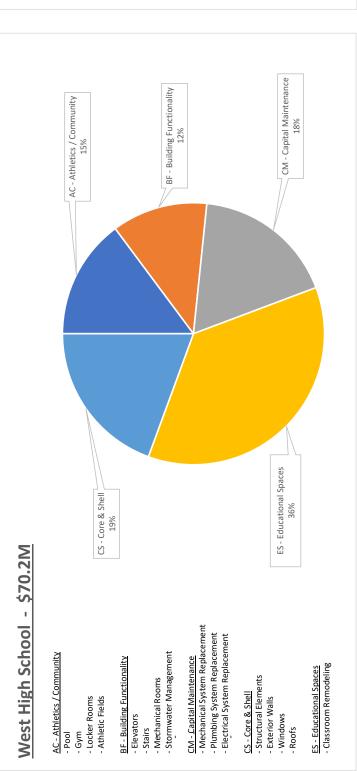
4. Athletics & Community Space

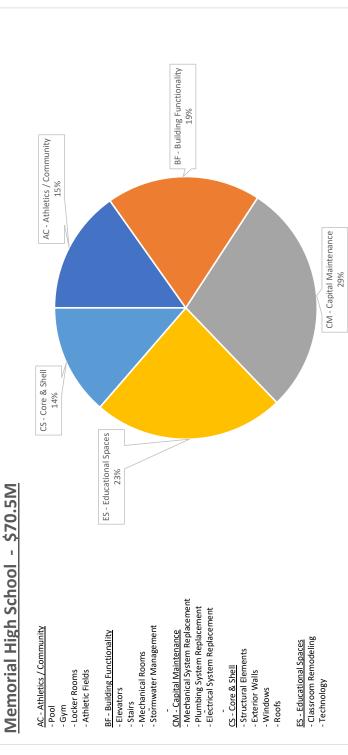
- a. Bleacher Replacement
- b. Pool Upgrades
- c. Weight room Consolidation
- d. Refurbish Mansfield Stadium
 - Artificial Turf
 - New Bleachers
 - New Press Box
 - Renovated Locker Rooms
 - New Track
- e. Baseball Upgrades
 - · Regrading of Fields to completed.
 - New Bleachers
 - Dugout Upgrades
 - Accessibility Upgrades
 - Field Lighting to be considered

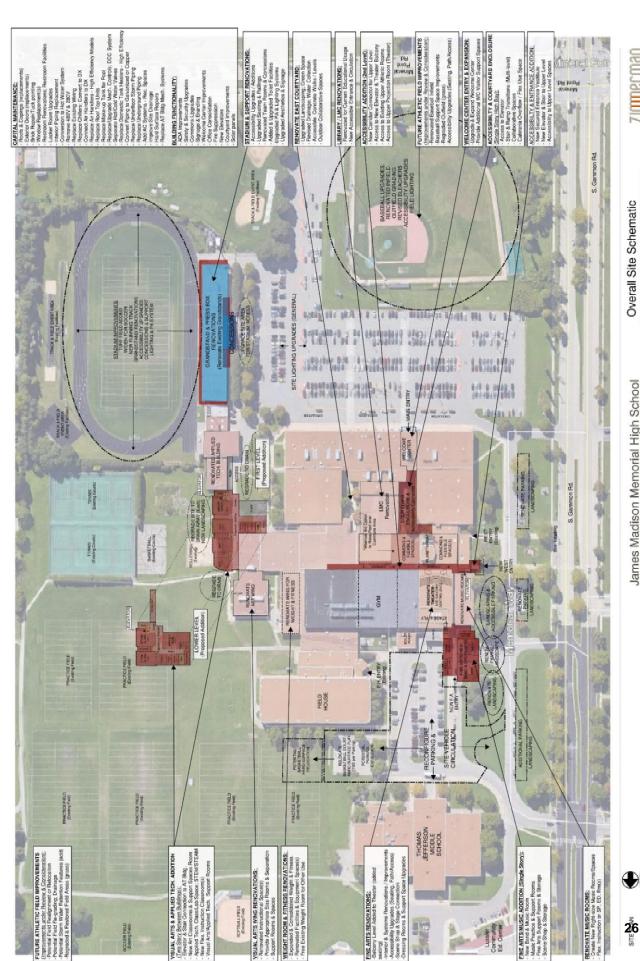










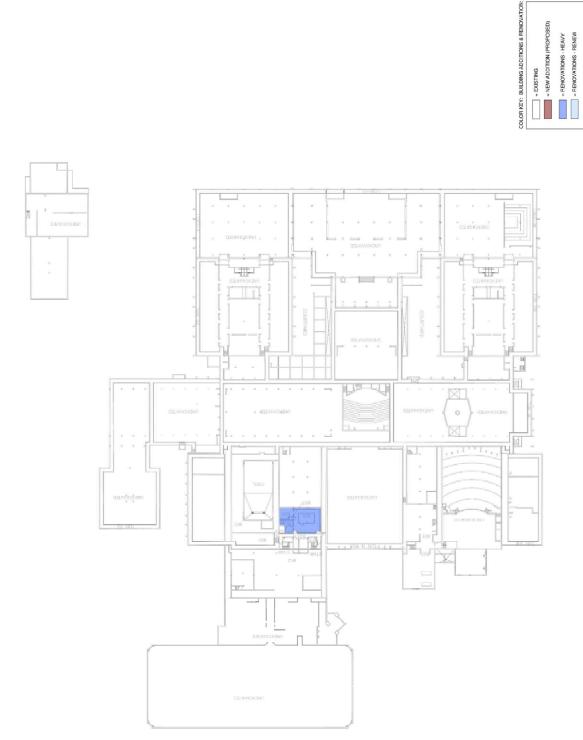












Lower Level Plan

James Madison Memorial High School

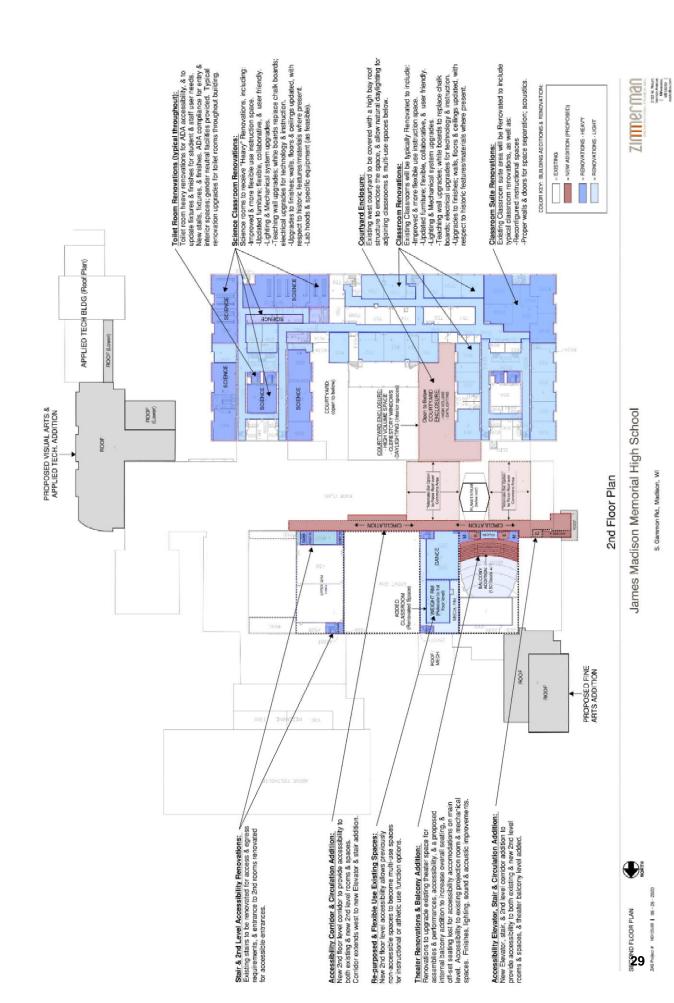








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Section Seven: Sustainable Design

SUSTAINABILITY CONSIDERATIONS | PREPARED BY Findorff

		Ва	se Sco	pe		+\$2M Scope Considerations			Additional Scope Considerations					
	West	East	LaF	Mem	Hoyt	West	(3210)	1.65	Morri	Hove	West	Basil	Laf	Mem
ENVIRONMENT														
Lighting														
LED Retofit (Lights + Occupancy)	•	•	•	- 6	•	1								
Mechanical											•			
Overhaul of HVAC System	No.	•												
Energy Management / Benchmarking	1.00			•										
Energy / Water Metering - Basic	19.0			•										
Innovative / More Efficient Systems							•	*		(*):		*	11.0	
Envelope Improvements														
Existing Window/Door Replacement		•	•	•										
Roofing		*	•	•	•						L			
Renewable Energy	1000	(2)	- 2	20						7.25	-			
\$150K Solar Allowance	•	•	•	•			121	- 27	7720	***	-			
Additional \$250K Solar Allowance (per school)	-					•	·	•	•		12	2	12	020
Additonal Solar Allowance											<u>:</u>	÷	÷	-:-
Battery Storage Exploration Water Management						t							- 5	1897
Erosion Control					•						_			
Environmental Remediation		•	-	- 50										
Indoor Water Use Reduction		•	÷	-										
Rainwater Management - Collection + Storage		•	·											
Rainwater Management - Greywater Reuse				-					1100					
Materials	-										A.C			
Asbestos and Lead Abatement		•									r			
Material Selection - Recycled + Regional			•											
Material Salvage and Reuse (Demolition)														
Construction Waste Reduction + Recycling				-										
Prefabrication of Building Components		100.1		0.0	080									
(as applicable)		•	•	•										
Integrated Learning Opportunities	18													
Visibility of Sustainability Features - Basic			•	•	*									
Curriculum - Environment			•	•	•	į.								
Using the Building as a teaching tool		•	•	•		i.								
Prototype Space - Carbon Capture / Battery Storage / Wind / Solar PV / Other									200					
Other														
Existing Building Reuse											-			
Gardens - Updates to Existing		÷	•	.		į.					-			
Light Pollution Reduction (Exterior)		-	-			i								
Bicycle Parking		•	-			į.					F			
Electric Vehicles Charging	1					-		*						
Green Roofs							233	141	1450	30.4		•		
Greenhouse												•	1.	12 9 .0
WELLNESS	100													
Wellness Centers - Staff														
Fitness Center											1			
Indoor Environmental Quality														
Healthy Materials		•												
Natural Lighting / Daylighting		•	•	•										
AND THE RESIDENCE OF THE PARTY		•	•	•	•									
Glare Control				•										
Glare Control Active Design	•	•	•	Title										
A CONTROL OF THE CONT	•	:	÷											
Active Design	107/7	- 77		_	•									
Active Design Flexible Spaces	•	•	•		10000									
Active Design Flexible Spaces Thermal Comfort	÷	:	•	•	•	•	•	. *:	3#3	39.5				
Active Design Flexible Spaces Thermal Comfort Access to Drinking Water Mindfulness Spaces Bathroom Accommodations - All Gender	÷	:	•	•	•	•		1 %:	(#)	300				
Active Design Flexible Spaces Thermal Comfort Access to Drinking Water Mindfulness Spaces Bathroom Accommodations - Ali Gender Universal Design - Accessible and Usable for Ali	•	•	:	•		•	•	. *:	(#)	30.7				
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Based on a study developed by FOCUS ON ENERGY and B3 Benchmarking, their study revealed from 212 school districts across the state of Wisconsin, ways to save money short-term and for the long-term. In the past 12 years, school districts that have undergone upgrades within school buildings have realized a 23% reduction in energy use. Buildings will be upgraded with higher efficiency equipment as well as other electrical equipment and devises, in other comparable installations, electricity use could be decreased by 5% despite the building adding air conditioning.

The following upgrades have been incorporated into the design

Lighting Upgrades:

The school will receive a full overhaul of the lighting environment. Each space will be evaluated to ensure it has the most efficient layout/proper illumination and fixtures upgraded to LED fixtures. Switching from a 32-watt T8 fluorescent lamp to a 18-watt TLED Lamp can reduce lighting costs by more than 40 percent.

		stem			Savings							
Description	Number of Fixtures	Туре	Wattage	Operating Hours per year	Energy Used per year	Number of Fixtures	Туре	Wattage	Operating Hours per year	Energy Used per year	Energy Saved per Year (kWh)	Dollars per Year (assume \$0.11/kWh)
Upgrade Fixtures in a Classroom	10	T8 Flourescent	32	2500	800	10	TLED	18	2500	450	350	\$39
Upgrade Fixtures in a Gymnasium	20	High Bay 400W Metal Halide	455	2500	22750	20	LED High Bay	190	2500	9500	13250	\$1,458

Additional savings can also be achieved by further implementing sensors and controls to assist in reducing the amount of operating hours per year.

Heating Ventilating and Air Conditioning (HVAC):

The District plans to invest in replacement of the aging mechanical system and equipment. Steam Boilers and air handling units will be replaced with high efficiency gas air handling units improving energy efficiency, which will result in cost savings and will reduce the environmental impact. The 1965 Boiler and the antiquated piping system running beneath the floors in tunnels will be replaced, with high efficiency packaged boilers. The hot water heating tank was installed in 1965. A new tank will be installed, with new controls, resulting in greater energy efficiency, and consistent temperatures.

Exterior Envelope:

Replacement of existing exterior single pane windows/door openings will assist in sealing up the exterior envelope of the facility, reducing air leakage in/out of the building, which will increase the efficiency of the HVAC system that is trying to regulate a comfortable learning environment. Typical savings associated with managing air leakage tend to range from 10 to 25 percent. Below is an example of energy savings based on a 2,000 sf single story building with 15% glazing.

Description	Solar Transmission	Equivalent U-Value	Utility Cost	Btu (Millions)		
Single Pane, Clear	75-89%	0.11	\$295	27.4		
Double Pane, Clear	68-75%	0.49	\$60	5		
Low-E Double Pane. Clear	45-55%	0.38	\$45	4		

Solar Panel Installation: Products and savings in the Solar Panel industry continually improve as new engineering evolves, and panels become more efficient. **The proposal includes a \$250,000 allowance for the implementation of solar panels.**

Regardless of the size or age of the school building, operation of the building with new generation equipment was the greatest savings when the systems were being monitored by well-trained building and grounds managers.



Appendix A: High School Input

MEMORIAL HIGH STAFF FACILITIES SURVEY

Staff surveys of individual high school facilities were conducted by MMSD in March of 2019 (see attached appendix document dated May 1, 2019). Included were the following four (4) common questions* asked for staff response / input:

- 1. What excites you about your school's plans?
- 2. What is essential to the building's plan?
- 3. What is missing?
- 4. What is unique about your school that could be amplified through building renovations?

(*Note that an initial question 'Q1' was asked on survey, but not provided per MMSD report.)

Included here for a more general summary are the most common responses provided from the staff surveys, grouped for general category themes, and in descending order of response frequency.

Question 1 (Q2 on survey): What excites you about your school's plans? (general themes; prioritized)

- Finishes upgraded/refreshed (floors, ceilings, walls, lighting) need to be refreshed. (16 responses).
- Update/refresh all restrooms, develop all-gender restroom facilities (11).
- Mechanical systems / HVAC (air quality, climate control, comfort, efficiency): (9).
- Building envelope maintenance (masonry repairs, windows, roof membrane); Flooding: (9).
- More educational space; flexible & collaboration space(s): (7)
- Welcome Center; Improved Safety & Security: (7)
- Education spaces updated; proper walls & spaces; (6)
- Accessibility of floors & spaces; Elevators: (6)
- Athletic Facilities; Locker rooms; Fitness; Fields: (4)
- Fine Arts improvements; Music; Theater upgrades: (4)
- Furniture & Equipment upgrades: (2)
- Pool upgrades: (2)
- Technology upgrades; I.T.; Electrical: (2)
- Science department upgrades: (1)
- Arts department upgrades: (1)
- Applied Technology / Trades upgrades: (1)
- Parking: (0)

Question 2 (Q3 on survey): What is essential to the building's plan? (general themes; prioritized)

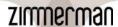
- Finishes upgraded/refreshed (floors, ceilings, walls, lighting) need to be refreshed. (14 responses).
- Mechanical systems / HVAC (air quality, climate control, comfort, efficiency): (11).
- More educational space; flexible & collaboration space(s): (10)
- Building envelope maintenance (masonry repairs, windows, roof membrane); Flooding: (9).
- Update/refresh all restrooms, develop all-gender restroom facilities (7).
- Welcome Center; Improved Safety & Security: (9)
- Athletic Facilities; Locker rooms; Fitness; Fields: (8)



- Fine Arts improvements; Music; Theater upgrades: (7)
- Education spaces updated; proper walls & spaces; (5)
- Furniture & Equipment upgrades: (5)
- Accessibility of floors & spaces; Elevators: (3)
- Technology upgrades; I.T.; Electrical: (3)
- Applied Technology / Trades upgrades: (2)
- Arts department upgrades: (1)
- Pool Upgrades: (0)
- Science department upgrades: (0)
- Parking: (0)

Question 3 (Q4 on survey): What is missing? (summarized responses; not prioritized)

- Art Annex; additional space to studios. More functional layout.
- Additional safety features in the Metals Studio.
- Updating of all bathrooms + drinking fountains; updated heating & cooling systems
- Need 4 new high schools; sell the old ones. Build 4 new ones on the corners of the City.
- A design where every classroom is soundproof and has windows.
- A focus on ALL classrooms, not just certain departments.
- I would like the A-wing courtyard to be an outdoor space we can continue to use.
- Ventilation.
- More classroom space is noticeably absent. Teachers need their own classrooms.
- Stadium & baseball should be separate work stream as shared facility with West.
- Consider shared pool facility.
- Working blinds provided to all windows in the event of a school shooting.
- Making sure all classroom doors have functioning locks.
- Mold removal & prevention (for health and safety of teachers and students).
- It would be fun to have a "makerspace".
- Collaborative kitchen space.
- Windows in classrooms. Landscaping that can connect to teaching and learning.
- Updates to FCS area; rooms all connected with no separate entrances including areas for Pathways.
- A CNA course room with a childcare/healthcare room connected through a foods room.
- Ventilation in parts of the building and overall upkeep are HUGE.
- Replace most existing furniture; old, outdated, broken, & just not functional. Old file cabinets; ancient bulletin boards, etc.
- Teacher collaborative spaces.
- Square footage allocated to music learning spaces.
- More parking near new theater / Jefferson MS is needed.
- New Health Office merged with Student Services (work together).
- Student Services rooms/spaces with "real walls"; noise and privacy needs.
- A Skilled Trades pathway and facility for instruction.
- "Light & welcoming" fresh spaces are needed; old/damaged surfaces/materials replaced.
- Resolve seasonal flooding issues at Applied Technology building.
- Applied Technology spaces too limited; lack adequate lab space, working space, storage space(s). Building needs MEP upgrades/replacement; lighting, dust collection system, etc.
- Improve all building areas; not just public spaces.
- Maintain courtyard for A wing; windows/daylight.
- More cameras for blind spots; better door security (kids open for other kids).
- A "mondo" track surface; flexible use for multi-team & club use.



- Real walls (replace partitions & old temporary walls).
- Provisions for girls' sports.
- Motion activated lighting controls.
- Furniture.
- Artwork display areas.
- Common area(s) for students.

Question 4 (Q5 on survey): What is unique about you school that could be amplified through building renovations? (summarized responses; not prioritized)

- Courtyards could have outdoor seating for students.
- Additional safety features in the Metals Studio
- Athletic fields; parking.
- We have an incredible community here. Open common spaces that can accommodate
 multiple types of groups/purposes would be awesome, as well as a more clear entrance and
 signage.
- A vibrant and innovative Art Department that needs a facility upgrade so that our spaces match our enthusiasm and capabilities.
- A school strong in most subject areas/departments, especially STEM. There should be functional areas to allow for advanced academics, learning, use of technology, flexible seating etc.
- We value academics, the arts, athletics etc. and above all our school community. Our current space is a dark, old, ugly, smelly, outdated bunker and does not reflect this at all.
- There is a lot of space around the school for expansion.
- The way students experience school is very different. The differences usually fall on race and class lines. All Memorial students should have a positive experience at school. Classroom spaces make way for strong relationships which promote positive school experience for all. Every teacher needs their own classroom.
- Feels/seems like a dated 60's building. Opening it up as much as possible would be good.
- Student services being all together allows for collaboration (but walls are thin no confidentiality).
- Separation of performance and competition spaces from curricular spaces.
- Sadly, the building itself is pretty ugly (outside). How to make it look updated and modern (?).
- Wide variety of clubs that our school has; the history of excellence in theater, Music, and athletics.
- Our school has much to offer with respect to its Art and Photography classes. We should be showcasing the work of our Art students throughout our school. Frame it up!
- Our focus on community & relationships. More lunchroom/student commons space needed.
- Should have ample staff office & meeting places. More classrooms need so teachers don't have to share (time & ownership).
- Should have a large open space; could use for community connection.
- Greenspace is an asset; preserve & create connections (Lussier Center).
- Theater & music programs very successful update performance space(s).
- Planetarium is a community asset; feature better.
- Tech Ed could be better incorporated into the building (whole).
- Huge athletics support within community; should better incorporate into new plans.
- Music program is strong; needs better support/spaces.
- Green spaces, courtyards, and fovers/common spaces.
- Family appreciation for music education (as school); Media collaboration; music & arts driven school.



- New/updated Applied Technology center for expansion of trades "pathways" to match current standards; spark interest in from minority populations in STEM & Technology Education.
- Better wayfinding in facility (signage).
- Courtyards; athletic spaces.
- More space needed to expand class offerings.
- Courtyards that could be converted to greenhouses (grow plants / food).

STUDENT FOCUS GROUP

Friday, March 8, 2019.

A group of 23 students asked the following questions:

1. What Are You Excited About?

- Expansion/renovation of the Band and Orchestra rooms
- New Auditorium
- Upgraded locker rooms
- Better HVAC in the pool.
- Upgraded classrooms and fine arts spaces.
- A renovated theater like East HS recently completed.

2. What is essential to the building plan?

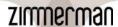
- Improved and renovated restrooms.
- Upgrades to the music wing.
- Additional practice space in the band and orchestra rooms.
- Improved HVAC.
- New weight room.
- Better access to technology.

3. What is missing?

- · Adding natural lighting into the building.
- Renovation of the entire pool, not just the HVAC.
- Field turf needs to installed on all fields.

4. What is unique about your school that could be amplified through the building the renovation?

- The arts are extremely strong. The addition and renovations should allow us to display our talents appropriately.
- The amount of outdoor space is unique compared to East and West. The building with the additions should help accentuate the environment.



SCHOOL BASED LEADERSHIP TEAM

Wednesday, March 6, 2019.

A group of 10 team leaders were asked the following questions:

1. What Are You Excited About?

- Classroom upgrades.
- Restroom upgrades.
- New common collaborative spaces.
- Better Science classrooms.
- New auditorium.
- New flexible furniture.

2. What is essential to the building plan?

- Larger classrooms that as a result would provide for better flexibility of teaching arrangements.
- Correct the flooding.
- Improve the traffic layout in the parking lot.
- New furniture.
- Improved and renovated restrooms.
- Upgrades to the music wing.
- Modern science labs.
- Updating technology.
- More collaboration space.
- Improved HVAC.

3. What is missing?

- Plan should identify and create more collaborative spaces for students and faculty.
- No mention of better natural light.
- More emphasis needs to be placed on improving the classrooms already in place.
- How will the addition impact the delivery of education? A good sequencing plan will be needed. Make sure faculty and administration are consulted.
- Students with special needs must be addressed. Accessibility has to be corrected.

4. What is unique about your school that could be amplified through the building the renovation?

- The quality of the fine arts.
- The quality of the athletic department.

Appendix B: Meeting Minutes

Meeting: Leadership Team

Meeting: Building Services

Meeting: Athletics & Co-Curricular

Meeting: Buildings Trades

Meeting: Instructional Team

Meeting: Technology Team

Meeting: Music and Arts

Meeting: Safety and Security

Meeting: Pathways

Meeting: COLT

Meeting: MSCR

MMSD Madison Metropolitan School District Meeting Minutes 10/12/18

Project Number: 180125.00

MMSD Projects Meeting: High School Needs Assessment

Participants:

Chad Wiese MMSD
Alisa Brown MMSD
Steve Kieckhafer PRA
Doug Barnes ZAS
Greg Strand ZAS

Planned Distribution of High School Projects:

East HS: PRA La Follette: PRA West HS: ZAS Memorial: ZAS

Upcoming meetings:

October 18, 2018: 1:00 PM Meeting at PRA Offices

Meet with LRFP Core Group at PRA's Offices

October 30, 2018: 10:45 – Noon Meeting

The teams will meet with BSM first, then complete initial school tours (BSM Building Services Management).

C.O.L.T. – Central Office Leadership Team Meetings with senior staff leaders of MMSD – discuss information

Brief C.O.L.T. 2-3 weeks in advance

- ZAS & PRA to also provide updates prior to meetings

C.O.L.T. meeting December 7th (TBD 8:00 AM – 12:00 PM)

January 19, 2019 – Presentation to Owners Work Group (OWG)

HS "Reinvestment Strategy" to be mapped out/outlined

- Emerging themes from HS study (vs here's what we're doing)
- Progress update type findings report (to be produced)
- Light on any recommendations; more process update and initial findings
- Staff updates also; hypothesis of staff internal work
- *This is all "Stage 1" work process (initial)
- Stage 1 will go on for some time

Stages 2 and 3 process for referendum to follow

Groups to meet with:

- Pathways Team: In charge of 'restructuring' model for MMSD schools.
- Technology Team
- Safety & Security
- Athletics/Co-Curricular
- MSCR & Community Use Group(s) (MSCR = Madison School & Community Recreation)
- Pathways Meeting
- Music & Art
- Instructional Team

All of these meetings done by December 21, 2018 Prep for School Board Meeting.

High level assessment with central staff input initially; then initial school for feedback After this, will get more specific and get school principals involved (strategy).

Initial Preparation:

Emerging themes, preliminary findings work, 'up front homework' should be investigated and developed before getting into specifics for individual schools.

Standing meetings on Thursday mornings:

PRA at 8:00-10:00 ZAS at 9:00-11:-00

- Confirm meeting times and dates.

The four (4) High Schools will likely be the lead buy-in for upcoming referendum.

- Enter into the study this with that in mind.
- Long overdue needs/renovations for curriculum.
- Do not just concentrate on facilities and maintenance.

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,



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MMSD Madison Metropolitan School District Meeting Minutes 10/18/18 - 1:00 PM

Project Number: 180125.00

MMSD LRFP Leadership Meeting

Participants:

Chad Wiese MMSD
Kelly Ruppel MMSD
Andrew Statz MMSD
Steve Kieckhafer PRA
Diane Davis PRA
Ken Turba PRA
Greg Strand ZAS

January 19, 2018 Presentation: "Storming & Forming" phase of work and findings to date Initial findings; preliminary report.

Consistency and compatibility of reports and recommendations (important).

Verification of capacity and space needs for supporting data:

Justify needs

Read "Strategic Framework" Document.

Be sure to be well versed on "Strategic Framework" Document

Four major points of focus on document relate to our process use as a guiding document.

4 day full K program needs - in document language:

Can't do now (future)

*Strategic Framework documents for MMSD - *All work and findings must support or relate to the Strategic Framework plan.

*Don't take this lightly, know this document.

MMSD 'lives' the Strategic Framework Plan.

Series of documents that prioritize and support findings:

- Priority 1 (development of these documents)
- Plans come later

Partnered with Vandewalle Associates for better perspective on growth projections/demographics.

MMSD likes the "periodic table" groupings for building grades and needs, as done by PRA.

MMSD utilizes this as back-up to support what needs to be done and why by the priority grading information.

Can use to justify if need to group types of maintenance work to be done for condition and/or cost impact per work type done vs. a particular project need (batch work bids).



Report done by Rettler Assoc. for site work condition and needs also grades and ranks needs/priorities.

Personalized pathways discussions/vision is in progress.

Nothing solidified yet; long ways to go to reach common ground for idea consensus; school board approval.

Athletics: This could vary significantly between schools. Also extracurricular programs

Dual language immersion – now really hitting MMSD schools for the first time as students are older now and advancing through school.

"Maker Spaces" - need to keep in mind for this education concept:

- MMSD may rebrand this concept as buzzword phase overused
- Pathways is an important piece of superintendents way of ideally turning around the MMSD schools/HS
- Pathways is still in discussion at high level for if/where it will go for schools

Neighboring districts are going out for school build referendum soon also (3 or 4 adjacent) but these are all really growth based on expanding enrollment.

MMSD is not in that need model; MMSD is for facilities and improvements/modernization based on steady enrollment numbers; some future growth.

High School reinvestment plan (key pathway stream #5).

Issue that involves most of community (high schools)

December 17, 2018 – provide written summation report steps 1-3 for B.O.E. Need written summary done for Board (initial review) materials by January 3, 2018, January 4,

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,



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MMSD Madison Metropolitan School District Meeting Minutes 10/25/18 - 9:00 AM

Project Number: 180125.00

MMSD High school Needs Assessment Meeting - Memorial High School

Participants:

Chad Wiese	MMSD
Rich Hopke	MMSD
Alisa Brown	MMSD
Tom Kannal	MMSD
Dave Kapp	MMSD
Mike MacDonald	MMSD
Jo Anderson	MMSD
Doug Barnes	ZAS
Greg Strand	ZAS

West and Memorial have no students October 25th:

- Thursday, October 25th walk-thru, 8:00am at Memorial (meet at Welcome Center)
- Monday, October 29th @ 8:00am at West High School

Bring samples of previous 'Phase 1' assessments:

- General discussions anticipated
- Know/review "Strategic Framework" document

Mansfield Stadium - General re-do renovation desired by school staff:

- Field
- Bleachers
- Track
- Lighting, etc.

Additional High school staff requests:

- Baseball stadium needs: Requested upgrades
 - o Irrigation
 - Dugouts
- Softball diamond lights, seating (bleachers)
- Artificial turf want on all fields
- Main Stadium Gym sound system upgraded/replaced
- Walking paths redone (poor condition)
- Gardens redone (outdoor)
- Weight Room want two (2) combined to one (1) Weight Room
- Walk-way over Gammon Road & Mineral Point Road
- Tennis court lighting (none now)
- Outdoor buildings and Maintenance areas are generally 'good'



480 volt services feed mechanicals at high school (not good condition)

- Want to get rid of 480 volt
- Also 208 services when mechanicals replaced

Drive at front of school (Gammon Road) is very poor - replace

New ceiling and light fixtures – existing are old and in poor condition

If no new Auditorium, need new P.A. system, dimming system and rigging system (Stage)

- Architectural teams need to explore the Theater for condition, facilities, need for Performing Arts
- What is needed, desired; should do (?)

Review Band and Choir spaces

If building an addition, will require a new fire alarm system

Have two (2) elevators; split level building

Stage is not accessible now

Locker Rooms review for general; Title 9 Status

Science Labs: Have been modified 'piece-meal' over years; no good renovations done

Poor condition

Planetarium – review space and systems: server closet.

Building tends to "flood" periodically; built on swamp area

Look at drainage

Intermediate Staff Parking is "a pond" (poor condition)

Widen Handicap parking area; now have issues with protruding into drive path when loading

Safety concern as well as function

V.A.T. tile is now gone – removed

Wall paneling is dated; tired looking

Toilet room wall partitions have not been updated

Lack new toilet facilities/rooms in building

Building windows are single pane glass; need replacement

Memorial ceilings are very old and poor (original)

Concealed spline systems

Chilled water and hot water systems pipes run in tunnels; cross over each other

- Poor access to fix (often) and services
- Tunnels Flood
 - *Mike handed out list of needs *Also plan sheet mark-up (colored plan)*

Chillers Poor

Convert to DX: eliminate chillers
Connect air handlers

Demo pool solar collectors: No longer functional

Mechanical Option 1: Demo chiller/tower – new DX rooftops & VAV Boxes

Mechanical Option 2: Replace buried chilled water piping and air handlers; VAV's

replace failing unit vents (select room identified)

Auto and shop building are detached structures; separate

Need mechanical systems redone

Run hot & cold water thru same coils/valves (done originally to save money); not good

Existing Recreation spaces (gym, etc.) do not have cooling

Should plan for A/C systems to add for planning

Convert EBI DDC to WBS AX

Eliminate pneumatic control system

Mansfield Locker Room

Unit vents / electric heat in bathrooms

No place inside for Auto Shop to store cars or auto projects inside

Mansfield Locker Room -

- Replace unit vents/electric heater in bathrooms.
- Replace 80% exhaust fans

Planetarium

Planetarium System overheats; install split system for Planetarium Service Closet

Commercial Washer/Press should be looked at for condition

Convert all piping to galvanized or copper

Replace under floor storm pipe - A & B wings

Storm Drains cut through courtyards; can/does discharge water during storms and causes flooding

Big issue to look at (may not be Phase 1, but have plan for with future)

Condition of underground piping is poor; very brittle

Replace Bradley sinks; half-round type

Add bottle fill stations where possible/practical

Replace domestic tank heater

Shower rooms generally are in poor condition

- Mansfield poor
- All toilet rooms need work
- Shower renovations Memorial

Stage has partial sprinkler system

Old finishes - generally

Needs updates

Windows poor; single pane

Originally most operable, but now screwed shut

Parking lot needs updates

Exterior doors poor

Many roofs need to be looked at

Mansfield Stadium:

- Seating needs replacement
- Review steel and concrete conditions
- Lighting (needs)
- Turf:
- Widen track to allow better soccer field

Soccer and Football now in stadium

Best if separated, but money may not allow

Library needs facelift; dated look and space(s)

Food Services – all four (4) need review for condition

Kitchen, support spaces, seating

Dead Solar Panels on roof (remove)

Site in general needs upgrades; landscaping and plantings, trees, grass, paving, etc.

Electricals are run in floor slabs at Memorial



- Issues for cutting floors and demo
- Pneumatics also in slab

Swimming Pool - MMSD may do as separate project

Trying to do one (1) pool at High School Buildings per year (+/-)

Existing Rooftops 30+ years old; when replaced, be sure to

Get VAV boxes and coils for

Geothermal systems would be strong consideration to do, but may not be viable for cost to do now.

Question asked on Middle School and Community Center impact:

- Shared Fine Arts programming
- Rent "Capitol High West" building store front across street
- If bump out for Fine Arts, should be closer to Middle School for joint use

Traffic on roads is very heavy

City growth has had big traffic impact on both streets

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,



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Madison Metropolitan School District (MMSD)

Project Number: 180125.00

11/16/2018 - 8:30am

MMSD High School Assessments -Athletics and Co-Curricular

Participants:
Chad Wiese
Alisa Brown

Devon Peterson

Jeremy Schlitz

Kevin Porter

MMSD MMSD MMSD MMSD MMSD

Thomas Rogness MMSD
Diane Davis PRA
Steve Kieckhafer PRA
Doug Barnes ZAS

Introductions:

Update:

Background summary of process; introductions of team

Districtwide input:

- How could improved facilities support your programs and Community?
 - They would expand our outreach to the community
 - They would help retain students from going to the neighboring Districts that have better athletic spaces.
 - They would allow our students more practice time
 - Safety and Security create a better atmosphere for both the competitors and their parents and visitors

How do you view your current facilities compared to your competition?

- Other Districts have dedicated spaces for individuals sports.
- Our locker rooms cannot be compared to any of them. Ours are small, cramped, poor ventilation and no inspiring graphics
- Most of the surrounding Districts have Turf fields
- Weight rooms are more expansive

Do you foresee any WIAA sports that will require additional or improved facilities?

- No additional WIAA sponsored sports in the near future
- If the no-cut policy continues, the fall sports will be out of space
- Club sports such as rugby, ultimate Frisbee and lacrosse require space.
- Why do we not have a hockey team?



Issues with relationship with MSCR and Community Usage

- We actually need to compete with MSCR for practice time. All MMSD athletics stop at 7:00 PM so the MSCR can utilize the space
- Schools need a better way to zone the building to limit access to MSCR clients
- If the programs could expand, they would act as feeder programs for the high schools. We can keep the student athletes if they are impressed by the facilities at an earlier age.
- A separate building for community use would be ideal. It would create more time for our students.
- Parents ask why their students cannot practice at the school they attend.
- Can the Middle School Gyms be upgraded to relieve some of the pressure

Specific Input

- Locker room capacity is good for the winter and spring sports. Fall is an issue
- Locker rooms needed to be completely gutted and redone.
- Showers are not being used as showers, but as storage and meeting rooms.
- Title 9 will continue to be an issue. The number of locker rooms will need to be increased.
- Turf is needed

West:

- Volleyball is tripling
- Soccer is up
- Football is down
- The weight room
- Need ventilation
- Tennis is across the street
- Better graphics are needed
- Improve the pool

Memorial

- Stadium needs:
 - New bleachers
 - New concessions
 - Larger track
 - Larger/better locker rooms
 - Better Lighting
 - Better sound system
- Baseball
 - Portions of the outfield appear lower than the infield.
 - Dugouts are old, bad masonry and failing roofs
 - All fields need irrigation
- Concessions need to be improved

Common Themes

- Turf is needed
- More space = more practice time
- All Locker rooms need to be upgraded
- Enhanced graphics





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MMSD Facilities Trades/Staff Meeting Minutes 11/28/2018 - 1:00pm

Project Number: 180125.00

MMSD Facilities Trades/Staff Meeting

Participants:

Chad Wiese MMSD
Alisa Brown MMSD
Jo Anderson MMSD
Mike MacDonald MMSD
Tom Kannal MMSD

Trades Staff (16+/- Ttl.) MMSD (staff)

Steve Keickhafer PRA
Ken Turba PRA
Doug Barnes ZAS
Greg Strand ZAS

Introductions

Update: Summary update of process

• Introduction of Documents, Website(s), Interactive menus available

Districtwide input requested from staff regarding high schools (?); school by school:

Memorial High School

- Possible to build new high school on Memorial site? Demo existing HS build new?
- Hot and cold water in same pipes needs to change (asap)
- Pipes are all "shot"; some pipes buried; all bad
 - o All piping needs to be replaced

Electrical:

- Sequencing of replacement during school operation? Extent (possible)?
- Old electrical panels bad; were poor when new
- Trying to find "bad panels" (malfunctions) is tough all over building
- Electrical capacity is ok

Painting:

- Need better ventilation
- Toilet partitions poor destroyed (metal)
 - Graffiti issues with metal
 - "At least if wood we could repair/replace ourselves"
- Paint and finish upgrades tough to keep up with (staffing & on-curing issues/vandalism)
- Tile and grout floors all stink/smell (toilet & locker rooms)
- Holding rooms for students with issues ("time out" rooms) get trashed; holes in walls, ceilings, furniture, etc.
 - Destroy drywall and finishes intentionally



- Lot of plaster finish failing going on throughout (more at East & West high schools)
 - o Moisture issues
- Exterior doors are poor
 - Concrete at doors is bad
 - At Auto Shop overhead door is bad
- Windows are poor
 - Window shades are bad

Plumbing:

- Sinks and toilets get jumped on; stood on; intentionally damaged
 - Lot of damage to plumbing fixtures
 - Need indestructible fixtures
 - o Kids pee on everything in rooms
 - Poop in urinals
- Water coolers get busted intentionally
- Need isolation valves to work on specific areas (ability to isolate areas for work)
- Pool make-up tank needs epoxy
- Door closers don't work well;
 - Out of replacement parts almost
 - Repairs difficult to maintain

West High School:

- Chimney ice falling/blowing off the chimney is a real safety concern.
- All exterior doors need to be redone
- Parapet walls need redoing; tuckpointing
- Bridge issues southwest bridge is spalling
- Pool tiles
- Windows don't open (anymore); storms over
- Plaster falling around windows moisture issues
- Lockers very old and poor
- West is a very dusty school very dusty compared to most others (schools)
- Courtyard drain needs to be bigger (gets plugged by leaves; students)
- If change to hot water system (from steam) all new piping needed
- Remove all pipe insulation as can abate; new /replace
- Replace boiler shut-off valves need new (can't shut off)
- Block off rooms (some) need AHC replaced
- Interior doors bad (in general)

East High School:

- Tuckpointing needed ASAP very poor; "masonry failing"
- Windows not good; leak
- Greenhouse poor; door leaks
- Pool ceiling issues with ceiling (parts) dropping into pool
- Concrete slab at handicap entrance needs replacement
- If doing fire alarm system, want hold-open on doors
 - Need sprinkler system also to maybe eliminate some existing stairs (?)
 - Steve (PRA) sees potential use of some existing stairs as small collaborate spaces (need sprinklers to do)



- Cabinets get abused: want more solid materials for new casework; tops, doors, hinges, etc.
- All exhaust fans need replacement; some eliminated (not needed)
 - o This applies to all four high schools
- Hot water loops are poor; poor pumps, poor system in general

<u>La Follette</u>: (short on time for input for La Follette specific issues)

- Exterior doors (aluminum) poor condition
- Needs new windows

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,





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Madison Metropolitan School District (MMSD)

Project Number: 180255.00

11/28/2018 - 10:00 am

MMSD High School Assessments - Instructional Team Meeting Minutes

Participants:

Chad Wiese MMSD
Lisa Kvistad MMSD
Silvia Romero-Johnson MMSD
John E Harper MMSD
Diane Davis PRA
Steve Kieckhafer PRA
Doug Barnes ZAS
Greg Strand ZAS

Introductions:

Update: Set stage and talk timelines.

Many of our schools seem stuck in the past for facilities and instruction set-up and use.

District Wide Input; Questions:

- 1. What role can improved facilities do for instruction?
 - OTP Space continuous movement of spaces/use
 - Have fixed points for OTP swings (ceiling mounts) all over
 - PT at High Schools
 - · Need space for hearing impaired students
 - Need integrated spaces for special instruction
 - o Resource rooms, etc.
 - West High School is pinched for space
 - Facilities are inconsistent throughout district
 - Expand Therapeutic Day School options
 - No district wide offering/services for students with mental disabilities
 - Should be integrated physical & mental health services built into schools; spaces for
 - Increased opportunities for trades and apprenticeships in for students with disabilities
 - High School(s) dedicated to trades/pathways
 - o MMSD may not be big enough to support, but should test
 - Continued improvement for accessibility in schools need
 - West is a challenge; music rooms, 4th floor spaces, others
 - HVAC better climate control in spaces
 - Improve aesthetics of facilities; make more appealing



- Dedicated District "learning space" for staff
 - Size for about 120+/- assistant principals (most needed)
 - Other core groups of about 320 +/- (less frequent)
 - Multi-use space for groups
 - Would need parking (La Follette & Memorial maybe)
- Instructional Spaces:
 - Not sure where MMSD stands with peers, but feels that MMSD lags behind in science, STEM, STEAM, etc.
- Student Services (?):
 - Mix of what conventional office space is (available)
 - Need individual spaces (privacy)
 - Nursing is cramped now
 - Now have hodge/podge of spaces
 - Want large spaces plus designed for use
 - Collaboration spaces; support spaces
 - Health services
- · Approaching buildings, many parents who can't speak English can't access/confusing
- · West is very bad for parking; wayfinding
- Feel(s) unfriendly (schools in general)
- More bi-lingual signage; also phone messages & reception when calling in
- West is very east to get lost in hallways
 - Many narrow hallways
- Need spaces for small group language learning
 - Collaborative and less intimidating
- Library has small study rooms, but locked (rooms) usually
- Son (has now) in Switzerland (Interlaken) school; has library in round design format
 - o lots of light and supervision; great space
 - School also has designated buildings for science, math, etc.
- · Teachers, especially new teachers, need spaces to go
 - o Targeted & imbedded space
- Ability for more language offerings
 - o If not enough instructors staffed, then ability to remote teach from one school others
- Translators
- Green Spaces
 - o Ability to see trees, grass; green spaces can enhance learning and environment

Keep furniture in mind for all schools; "Re-branding" of MMSD high schools

- Re-branding needed; our students deserve better facilities
- Need for better athletic facilities
 - Peers outclass MMSD
- Virtual Learning spaces plan for
 - o Also connections to Middle schoolers for cross-education
- Personalized Pathways add spaces needed to provide
 - Theater and Arts
 - o STEM
 - Other offerings



- Professional learning spaces for staff is important
 - o Appropriate SRE space(s); location
- Special Ed Struggle now with appropriate delivery of services for these students
 - Not enough space; kids get pushed around
 - Need proper spaces/environment
- Mental Health Services: Future needs to plan for
- · Remove "clutter" in hallways and public spaces
 - Eliminate places to hide/hang out
 - Improve Appearance
- For virtual learning have used mini-robots in past for distance learning
 - Audio streaming for students would be good
- Dedicated space for Special Ed. Instructors
- Instructor assistants don't have access to computers often, or spaces to use them
 - Dedicated spaces to go to access (should have)
- 2. How do you compare your current facilities to other K-12 sites? (Peer facilities?)
 - Schools dedicated to Technology (Specialized High School)
 - Technology for the purpose of collaborative learning
 - O What are the skills needed for this?
 - O What spaces are needed for this?
 - Have seen recent schools (Seattle) with nice & modern spaces added; more college like
 - Bright, open, glass; inviting and stimulating
 - Design like
 - "Academies"; themed
 - District offices with inviting entry/spaces, but secured entry areas
- 3. What do you like most and least about our facilities?
 - Students have some pride in what their building is, and make best of it
 - Buildings are challenges to retrofit to current instruction
 - o Old buildings, tired, systems failing
 - Don't like buildings feel very institutional
 - Narrow hallways
 - No good large spaces
 - Facilities more reflective of diverse current populations (should have)
 - Not so "old white middle-class"
 - Buildings are old/tired
 - Not welcoming; not stimulating

- 4. Name one big wish item game changer (think big Items)?
 - Pathways/Academy-type schools
 - Not "elite" feeling, but practical to pathway(s)
 - Lots of light/glass
 - Sustainable design
 - Green spaces "greenery"
 - Could central offices move other facility?
 - Feel disconnected
 - o Doyle is old & failing building
 - Too remote from schools; poor spaces
 - Community building (could have)? Community spaces
 - Ways to make connections to all learning levels
 - o 4 & 5K, Elementary, Middle School, High School, Early Education

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,



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Madison Metropolitan School District (MMSD)

Project Number: 180125.00

11/30/2018 - 8:30am

MMSD High School Assessments - Technology Team Meeting

Participants: Chad Wiese **MMSD** Jeff Knutson **MMSD** T.J. McCray MMSD Lynda Chen **MMSD** Scott Fernholz **MMSD** Stacy Smith-Buckley **MMSD** Renae Ferraro **MMSD** Diane Davis **PRA** Steve Kieckhafer PRA Doug Barnes ZAS Greg Strand ZAS

Introductions:

Update:

Background summary of process; introductions of team

Districtwide input:

- 1. What can facilities do for instruction?
 - High Schools feel stuck in the 60's; dated
 - Not welcoming; authoritarian; intimidating
 - Feels old; not current
 - Need flexible spaces for learning: instruction
 - Groups; Individual study
 - Coffee Shop in Library (idea/fee)
 - More user friendly spaces
 - Not so "compartmentalized" (halls & classrooms)
 - Like what Oregon School District did
 - Feels like an 'airport'
 - o Also Kromrey MS (Middleton) School renovation (like)
 - Get rid of desks; more flexible furniture; options
 - Oregon School model is great
 - Options for space(s) and furniture for learning



- Many classrooms are too small; cramped
 - o Inflexible seating; lack room to move
 - Very old education style rooms
 - o 30+ kids in classrooms
- Would be good for hallway spaces, or similar options for students to "over flow" out if need collaborative space
- Like Waunakee intermediate school
 - New library space is really nice
- More collaborative spaces
- Glass for visual flow and supervision
- Bathrooms horrible (East especially); redo all
- Improve large training/Ed spaces
 - Auditoriums
 - Study Halls, etc.
- More take home devices (students)
- Secure work space(s) for technicians
- Prep space/facilities for tech support; repairs
- * Better Wi-Fi everywhere
- More outlets overall need access to power
- Schools are too institutional (feel)
 - o Zero interest/dull; no excitement
- Auditoriums at all four high schools need renovation
 - Better presentation space; capabilities
- One space that needs a lot of T.L.C. is libraries
 - Technology inclusive
 - How spaces should function with tech (consider)
- Have space, but not exciting; not useful
 - o All (most) very dated for finishes; furniture
- More visible locations for libraries/ LMC's; east to find
- Maker spaces could have home in library also
 - Better use for MMSD Library facilities

- 2. Peer Libraries?
 - Kenosha School libraries (common learning spaces) (Tremper)
 - Use self check-out; many seating options; maker space
 - Sun Prairie also nice (reconfigure shelving, functions)
 - Flexibility of library space important
 - o "Recharge" spaces; new feeling and purpose
 - Sound: Able to handle conversations; groups; individual study also
 - Blended learning spaces/capabilities with library
 - Small rooms adjacent
 - Option spaces for study; gathering; instruction
 - Jefferson Middle School renovation turned out well (MMSD)
 - Like things that were done there
 - Like folding/nesting tables; wheels; flexibility of space(s) with appropriate furniture
 - Lighting:
 - Add natural light where can
 - Windows: skylights; light tubes
 - Project Lead-the-Way: MMSD still doesn't know what this program will look like exactly (formation in process)
 - Flexibility of space(s)
 - Technology incorporated/capability
- 3. How do facilities feel when vesting schools? Keep in mind improve spaces.

LMC's: Question posed to all to consider for new design

- Built-in capacity for messages; technology
- 4. What do you like most/least of four high schools? Space:
 - Like to preserve some historical contents; character
 - Original wood cabinets; architectural details, terrazzo, character (good)
 - Like least: Narrow corridors (La Follette)
 - Like parking at all, but West High School (East not great)
 - Dislike "Utilitarian" look at most
 - Dislike How closed off and unwelcoming most visitor spaces are when entering

East High School:

- Poor entering experience; welcome center not so much
- Library split
- Small classrooms
- Narrow corridors
- Outdated/unused Tech Ed spaces



La Follette High School:

- Similar comments to East High School
- Welcome Center improvements
- Classrooms little bigger
- Lacks collaborative space(s)
- LMC has S.F. space, centralized
- Some goofy space Orientation
- Second Floor traffic flow is poor
- "Pit" concept is bad (very bad)

West High School:

- New Welcome Center not good
- Parking very bad; limited
- Small classrooms
- Over/Maximum capacity
- Accessibility issues
- LMC space ok, needs updating
- LMC easy to find (good) at end of hallway
- Only school where teachers are "mobile"
 - Teachers move. not classrooms
- Lack electrical outlets in walls

Memorial High School:

- Welcome Center is 'better' now
- Courtyard spaces options to consider
- Library space is ok, but "dark" and "low" feeling.
- Classroom sizes adequate generally; some not
- Music and Arts wing(s) lack square footage; accessibility
- Study Hall tucked in corner; should be more central
- Science rooms are small; old; tired
- All entrance doors need to be redone
- Parapet walls need redoing/tuck-pointing
- Bridge
- Pool tile
- Windows don't open
- Plaster falling around windows moisture
- Lockers very old and poor
- West is a very dusty school very dusty compared to most others
- Courtyard drain needs to be bigger
- If change to hot water system all new piping
- Remove all pipe insulation as can abate; new
- Replace boiler shut-off valves need new (can't shut)
- Block of rooms needs AHC replaced
- Interior doors bad (general)



East High School:

- Tuck-pointing needed ASAP very poor; masonry failing
- Windows not good; leak
- Greenhouse poor; door leaks
- Pool ceiling issues with ceiling dropping into pool
- Concrete slab at handicap entrance needs replacement
- If doing fire alarm system, want hold-open on doors
 - Need sprinkler system also to maybe eliminate some existing stairs (?)
 - o See use of some existing stairs as small collaborate spaces (need sprinklers to do)
- Cabinets get abused; want more solid materials for casework; tops, doors, hinges, etc.
- All exhaust fans need replacement; some eliminated (not needed)
 - * This applies to all four high schools
- Hot water loops are poor; poor pumps, poor system
- 5. If you could pick one improvement?
 - East High School Library redone/replaced (two responses)
 - Flexible spaces for instruction
 - Commonality of new classroom designs; capabilities
 - LMC's for all four high schools
 - New seating; flexible (enhance Ed. Space options)
 - Some desk type
 - Some tables
 - Some high "bar stool" type and tables
 - Change colors; new look

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,





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Madison Metropolitan School District (MMSD)

Project Number: 180255.00

12/03/2018 - 9:30am

MMSD High School Assessments – Music & Arts Meeting Minutes

Participants:

Chad Wiese **MMSD** Mark Penisten **MMSD** Najjah Thompson **MMSD** Peter Kuzma **MMSD** Steve Kieckhafer PRA Diane Davis **PRA** Doug Barnes ZAS Greg Strand ZAS

Introductions:

Update: Set stage and talk timelines.

Districtwide input:

1. What do you like most and least about our facilities?

Music & Art:

- Instrumental Music need to address storage needs
 - Appropriate type(s): safely stored (at school)
 - o Instruments have too wide range of storage types now: old units
- More similar storage needed (between schools); better
- Better storage to protect from damage; impact, climate, etc.

Theaters:

- East High School has accomplished some of this now with remodel
- West and Memorial High Schools:
 - Not equipped now to host major type events well;
 - Not as 'safe' as should be
 - Need more features designed into theater space(s)
- Memorial ventilation of music rooms, Egress concerns from rooms with packed conditions of furniture and equipment.
 - Complain smell outdoor odors from unit vents
- Now adapting programs to meet facilities not other way around
 - o Facilities pose limitations



- Jefferson Middle School has practice rooms built into space
 - Like this concept also for High Schools
- Acoustics improve in rooms for better use/instruction
 - If kids can't hear each other properly, then issue with instruction & group play/skills; learning
- 2. How could improved facilities help support programs and community?
 - Access to programs/programming based on space
 - o Options available with spaces available
 - Spaces to facilitate work, technical skills
 - Spaces that encourage collaboration (need these)
 - If students can see what is available to them (materials & spaces, etc.) it helps open up their minds and possibilities.
 - Renovations at East successful enough that they can/are now able to rent out the space
 - More possibilities
 - More programs; tools
 - More user groups
 - More useful to whole school; community
 - Freedom (more) in curriculum with appropriate spaces
- 3. How do you compare your current facilities to other K-12 sites? (Peer facilities?)
 - Spacing/spaces within large music rooms; suites
 - Spaces for all related options
 - Practice rooms; support rooms
 - Other surrounding High schools are often smaller communities and thus auditoriums are more community spaces
 - Larger facilities (makes different comparison)
 - Built/designed for more community use
- 4. Site and content specific input?
 - Poor acoustics at East were a major issue before renovation better now at East
 - o Good acoustics allows students to do more
 - La Follette High School's acoustic panels painted over not working for sound.
 - West High School balcony (under) has acoustic issues
 - Acoustic problems under balcony (sound shadows)
 - West High School Original design intended to meet dual roles
 - Assembly and Theater (student assembly)
 - * Important for Arts that rooms designed more for the arts and theater (not assembly)
 - Memorial High School old shop space now Visual Arts space
 - Opening old overhead doors helps promote both visual and community use and awareness
 - Like this ability with overhead doors
 - La Follette High School spaces are retrofitted classrooms (not good)
 - More natural light (desired)
 - More elbow room for instruction; instruction space options

- 5. What do you like most/least about facilities?
 - Most proximity to rest of school (not remote)
 - Least lack of storage
 - Least poor acoustics
 - Least not designed spaces (left-over spaces)
 - Least poor storage makes it hard to clean spaces; dust and clutter
 - Good spaces are inviting; live and welcoming spaces
 - Most liked (or asset): Learning to deal with less than ideal conditions
 - Dislike: Not enough space/spaces; things cramped and pile up

Around the District for Comments:

Memorial High School

- Some staff want all new art wing at Memorial; new Theater:
 - Riggings needs redo (also for safety)
 - o Electrical; audio upgrades
- Expansion of Music & Arts rooms go out for more space
 - o Improve flow inside stage and auditorium
- Accessibility to space and rooms
- Increase height of fly space
- Push out Music Room spaces (add on)
- Expand Theater space out in back
 - More space
 - Scene Shop
 - o Projection Room should be accessible; larger also for projectors/equipment
 - * Now ladder access to get to
- HVAC is old, noisy, ventilation concerns
- Old Auto shops were larger spaces, which helps
- Need sinks, plumbing, traps, etc designed for spaces

West High School – Theater:

- Theater: Room is not terrible space, has nice aspects
 - o Eliminate windows (light issue and curtains don't work)
 - o Like aesthetics of windows, but not light
- Back of auditorium could reduce some seating to help space & flow
 - o Under balcony acoustics poor
 - Add lobby space; circulation; more space for flow
- Stage redo should include new rigging
 - Light/power controls; audio
- Need better and accessible spaces for dressing rooms, toilet rooms, support spaces
 - o Could add onto building to improve

West High School - Visual Arts:

- Eliminate storage within classrooms to open-up spaces
 - Dedicated storage
 - o Accessibility



La Follette High School:

- Same general issues as with Memorial High School
- Visual Arts: Types of storage make it hard to maintain them and storage
 - o Art storage is an issue; space

East High School

- Theater better now
- Visual Arts: PRA would like to build new (add)
 - o Re-purpose Tech Ed wing for STEM/STEAM
- Narrow and tall spaces feel cramped (now)
- Art Rooms remodel location, basement (most don't see them)
- 6. Name one big wish item game changer?
 - More directly linked to other arts programs
 - More connectivity
 - Accessibility visual and physical
 - Improve instructional spaces (for Arts)
 - Make spaces more safe; access, egress, capacity

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,



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Madison Metropolitan School District (MMSD)

Project Number: 180255.00

12/05/2018 - 10:30am

MMSD High School Assessments - Safety & Security Meeting

Participants:

Chad Wiese MMSD
Karen Keplar MMSD
Steven Ryan MMSD
Joe Balles MMSD
Steve Kieckhafer PRA
Greg Strand ZAS

Introductions:

Update: Set stage and talk timelines.

Districtwide input:

- 1. What do you like most and least about our facilities?
 - Good: Lot of incremental changes made to improve best as can at the time.
 - o But, lack of vision for overall growth of Madison as a town
 - No new high schools/facilities
 - Change in student demographics
 - Doesn't keep up with many special needs students
 - Bigger investment needed in thinking of how to educate students.
 - Should look at reducing West High School's population; too crowded
 - Student "flow" in hallways is challenging / poor
 - Too many blind spots
 - Supervision challenging
 - Managing visitors more consistently at schools (need to)
 - Parking issues at schools; lack of parking; drop-off/circulation
 - o Flow issues
 - Housekeeping in general:
 - Science, shops need to be cleaned-up; exposures; safety
 - Wood shop at East High school is great; instructor does great job of maintaining and organizing space
 - Equipment needs to be kept up with/monitored; concerns/safety
 - Getting kids in and out of school quickly (when needed)



- Aesthetics improved (overall in general)
- Providing upkeep and maintenance to preserve historic structure
 - Mindful of design for addition and renovations
- Like focus on accessibility/ADA over the last several years
 - Need at all schools; continue improvements
- Middle & Elementary schools need focus on secured entrance and welcome centers
- School office locations need to be determined consistently by Administration & design consultants (not by principals).
 - Standard type(s)/locations
- Storage: Review in general for quantity and types
- Signage: Consistent in high schools (should be) for safety & security updates, should follow Madison Police Guidelines/Standards.
 - Mirrors (in hallways)
- P.A. System improved inside and outside buildings
- Parking and Traffic:
 - Look at creative options to improve accessibility for those in need entering buildings/facilities.

Common themes heard to date:

- Signage / branding
- Traffic flow / safety
- Honoring historic buildings
- High Schools need a fresh look; revitalize
- 2. How could (improved) facilities support school communities & student achievement?
 - Welcome Centers: should be top / high priority
 - Some buildings (Lincoln) have offices buried inside buildings (others also hard to find).
 - o Poor supervision
 - o Hard to find (Welcome Centers); not visitor friendly
 - West High School is a short term solution very poor experience
 - East High School also not great
 - West has accessibility issue off of Ash Street entrance
 - Note: "City will (?) annex the Town of Madison in 2022"
 - Need another high school solution (like old Central High School again)
 - Branding of signage for entry doors (need)
 - o Requirements of visitors
 - Wayfinding where to go
 - Strategic access for community
 - Playgrounds (blacktop) and parking lots (should be/have):
 - Well kept; maintained
 - Signage
 - Nice equipment (playgrounds)

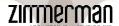


- Buildings look tired; old equipment also
- Buildings look stuffed; too much clutter in buildings
- How do current facilities compare to other K-12 sites/districts familiar with?
 - Libraries: Better design for use intended
 - Need security "command room" in each school (designated)
 - Not thought of when schools were designed
 - Now commandeer (PD does) principal's office if something happens; critical incident (principal's office becomes temporary Command Center)
 - Playgrounds:
 - o Should be managed to set of standards for safety; equipment, use
 - Health Office(s):
 - How to store medication (look at better); secure
 - o Different per school grade level
 - Concern for "Open Campus" at high schools (currently have Open Campuses)
 - o Security concerns
 - Problem that some high schools can't serve or seat that many students if they were to close campus
 - Metal detectors at entrances:
 - Has been conversations on, but no direction officially
 - o For now will try use of wanding students at some entry points (recent issues)

Site and content specific input; High Schools:

Memorial High School:

- Doors that lock Field House doors major issue (MMSD replacing soon): Aware of
- Traffic pattern should look at
- Pavement generally okay
- More lighting & surveillance at parking and on site
 - Stadium use especially; most weekends
 - o Poor lighting outside stadium
- Weakness in doors where students from Jefferson come over for classes (supervision)
- Flood protection; water flow away from facilities
- Welcome Center is in decent shape; good location
- Positive: traffic pattern before & after towards Gammon Road is good; separation
- Could remove overgrown shrubbery, etc. (hiding spots)



West High School:

- Parking
- Accessibility
- Space
- Poor Signage
- Safety & Security:
 - West still used as polling place
 - Overcrowded!
 - Nightmare for security
 - o Good students (generally); some poor (behavior); crowded
 - Lots of nooks & crannies (challenge)
 - Sexual assaults reported in hidden stairwells (has/have occurred)
- Students leave to move cares (security & safety)
- Food trucks now park outside at lunch time
 - Garbage on site (plates, wrappers, etc.)
 - o Lots of traffic in and out of building with open lunch

La Follette:

- Open commons space causes issues (big central space)
 - Very loud; very/too active space
 - Should be broken up some to redefine space
 - o Allow Admin to take back the building from students; crazy space with kids.
- Aging and oversized central toilet rooms
 - Oversized for use/need
 - Hard to supervise
- Pit is an issue; bad space; eliminate "the pit"
- Main office too cramped redo
- Welcome Center is heavily used ok
 - Across the hall space could be used for some security space use; in-school suspensions, etc.
 - Students know where cameras are coverage
 - Locations to better monitor/watch space (1) with kids on in-school detentions; temporary discipline students

For joint schools (Elem & MS) – should have 1 large Central Office, not 2 split offices

Single point entrance & office

East High School:

- Welcome center; Office priority
- Large central congregating space is challenging
- Could move some office space down to help with areas that need more supervision now, with how kids use building and where congregate

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,





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Madison Metropolitan School District (MMSD)

Project Number: 180255.00

12/06/2018 - 11:00am

MMSD High School Assessments - Pathways Meeting

Participants:

Chad Wiese **MMSD** Cynthia(Cindy) Green MMSD Jen Wagner **MMSD** Alex Fralin MMSD Ken Turba PRA Steve Kieckhafer **PRA** Doug Barnes ZAS Greg Strand ZAS

Introductions:

Update: Set stage:

Districtwide input

- 1. What do you like most/least about MMSD facilities?
 - Schools may be old and dilapidating, but still feel like home to many
 - East High School on main transportation line good options to access/opportunities.
 - Schools (East & West) not designed to promote collaboration
 - Need update for how kids/adults will/should use spaces
 - Flexibility: collaborate/flexible spaces
 - Library space(s) How utilized and set-up for
 - o Collaborative/flexible spaces for location; community use
 - School staff has made good use with what they have
 - Classrooms too small
 - Wasted spaces
 - Underutilized spaces
 - Poor lighting; old, not vibrant or stimulating
 - Lack collaborative spaces
 - Athletic space old; needs upgrades
 - Watch room spaces; old, need upgrades
 - Theater (Memorial especially) don't like; old and not good spaces for performing arts.



- 2. How could improved facilities support instruction?
 - How spaces look and feel from how students enter and perceive space impacts their experience and ability for learning
 - Big impact on education capabilities
 - Need spaces for hands on learning (especially Pathways)
 - Culinary
 - o S.T.E.M.
 - o Health Care
 - o Arts / Tech Ed
 - Tutoring Center (like MATC)
 - Meet a variety of needs for students
 - More Mobility: Mobile Lab's (capable)
 - Visual and Performing Arts space; Theater (not assembly)
 - Serve kids after hours also (not just 8:00 3:00)
 - Foreign schools seen / observe:
 - China: School with Starbucks café to help students learn English; Run a store; learn alt. culture
 - Flexible spaces for Pathways, options for education spaces
 - Too restrictive now (buildings are)
 - Courses now are limited to spaces available
 - Little classroom flexibility
 - Scheduling of athletics and community use groups is tough
 - High use/demand
 - Conflicts and priority use conflicts
 - School/Community spaces now not designed for purpose
 - o Retro fit; too restrictive for design
 - Locker and bathroom spaces disgusting; really bad spaces
 - Courses and career centers in high school; lack now should have
 - Recent Madison Course space upgrades are great
 - Models should strive to emulate in designs
- 3. How compare to other schools Sites we can learn from?:
 - Schaumburg (II) and other in that area undergo constant upgrades to expand and improve facilities (about same age buildings)
 - Libraries
 - Maker spaces
 - Collaborative spaces
 - o Atrium; lunchroom and 'chill' space
 - Finish upgrades; lighting and colors / finishes
 - Lab spaces designed/incorporate into school
 - Madison Spark Building interesting for concepts /space
 - San Diego High School Large flex spaces
 - Reynoldsburg (OH) Near college and students can walk to/from college for some courses
 - Stevenson High School: specific built around smaller communities within; pods with common spaces; hub
 - Design supports kids and learning



- 4. What do you hear from parents and staff?
 - Spaces are so old
 - Exact what looked like 20, 30 40+ years ago
 - Buildings don't feel clean; broken things
 - Other districts athletic facilities are far better/newer
 - Old facilities impact learning
 - Concerns/safety
 - Like Classic old facades of West and East High Schools
 - o Interiors are a mess, but classic facades
 - Learning is visible; more glass/transparency inside
 - Memorial front entry space upgrade is nice start, but ends right after pass thru
 there into building
 - We can't go forward without a new high school
 - Need to reduce numbers at existing; alieve pressure
 - Moe innovative buildings; capabilities
 - Located near west side of town

Around the District?

- 5. Memorial High School? (What does well? Improve?)
 - Music and theater areas need to be redone/replaced
 - Planetarium (presently renovated for Building 5)
 - Courtyard (potential)
 - Long and numerous hallways are poor
 - Lunch room space(s) better utilized; open up
 - Could have a Student Achievement Center in main lobby/open area
 - Don't like locker corridor space open up
 - Classroom spaces are small; old; access challenging
 - Lack Lab spaces for science; culinary; other
 - Science rooms really poor/old
 - Small theater not well utilized or located
 - Drainage; water issues/gross; stadium redo; site upgrades

Need virtual learning space capability in high schools

Memorial: great options with new fine arts and stadium upgrades to bring back enrollment.

- 6. West High School?
 - Lacks site space for growth; limitations
 - Pool too small; poor location
 - Auditorium poor and outdated
 - Too many multiple office locations; no central hub; procedures
 - Library ok size; dated and under utilized
 - Cafeteria space problematic
 - Lack Lab space
 - Culinary is not possible no space
 - Can't do kitchen spaced needed for culinary
 - No good open space in school
 - Dark paneling/wall finishes area bad ("sucks the life out of you..")
 - Lack of parking; visitors?

La Follette:

- Current design lacks opportunity for spaces/program
 - Have hard time locating other programs or changing space vs. as need for new programs.
- Wasted space(s); nooks and crannies
- 'Pit' is awful: waste
- Labs and classrooms many way too small
- Culinary is poor
- Commons space becomes a "zoo" at heavy use times
 - Very loud; live space; busy
 - Relocate school store more upfront/visible (Memorial also bad)

East High School:

- Open 'pit' area by theater and adjacent spaces don't support the entry and theater experience; a '1 off' remodel
 - Not like other new schools
- Culinary: East would be great/prime location if/for Culinary Pathway program
 - Potential for, but lack now
 - Location is bad not easy to get to/find
- Have two libraries don't need two (Like Madison college design concept)
 - Consolidate or connect vertically as one better space
- Auto and metals, engineering spaces are large good options for renovating
 - Multi-level spaces; now one teacher space
 - Can't supervise activities; limiting due to levels & sight lines (staffing)
- Need Health Sciences Lab/space
- 7. One thing facilities related change would want to see?
 - Need to meet more students educate. Needs
 - Virtual learning capabilities/spaces
 - Aesthetics of building especially on entering
 - Colors, lighting, signage, design of space(s)
 - Automation of attendance and student monitoring; security

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.





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Madison Metropolitan School District (MMSD)

Project Number: 180255.00

12/06/2018 - 11:00am

MMSD High School Assessments - MSCR & Community Use

Participants:

Chad Wiese **MMSD** Kelly Ruppel **MMSD** Jacob Tisue **MMSD** Andrew Statz MMSD Bo McCready MMSD Steve Kieckhafer PRA Diane Davis PRA Doug Barnes ZAS Greg Strand ZAS

Introductions:

Update: Set stage and talk timelines.

Districtwide input:

- 1. What do you like most and least about our facilities?
 - Like: they are accessible to community use
 - Like: areas the high schools services
 - Dislike: amount of use is a problem
 - Dislike: coaches who have outside day jobs are limited to later practice times.
 - MSCR has its own funding boundaries/limits
 - Dislike: High community use creates additional wear and tear on facilities; lack funds (Fund 180) to keep up with usage needs
 - Like Location(s) of high schools
 - Fewer kids drive to school than most school districts (nearby)
 - Like High Schools being community based and utilized
 - Security is a concern with community and group use
 - Not good enough visibility; not enough cameras
- 2. How could improved facilities support your programs & school communities?
 - Better access to high quality space(s)
 - Lot of after school use (3:30 6:30+)
 - Lack collaborative spaces
 - Lack ability to "compartmentalize"; close off building (areas)



- MSCR utilizes all pool facilities at high schools
 - o Pool use is very high; hard to do maintenance
 - Hard to close down facilities for repairs/maintenance
- Madison has a large swim community; City wide popularity
 - Demand for pool time/use strong in general
- Disputes between school athletic groups occur for space/time
 - Club sports make worse for space availability
 - MSCR compounds the space/time issue
- MSCR Offices are in the Hoyt Building on Regent Street (old school)
 - Current condition of Hoyt Building is bad ("real bad")
 - o MEP's, roof, windows, toilet/lockers need repair/replace
- Idea of an MSCR future "Complex" facility would be great
 - Facility capable of hosting all programs/activities
- Hoyt Gym renovation would be good for short term
 - Would need roof, windows and more done to fix-up
- Parking at Hoyt limited; neighbors don't like
 - o Hoyt now about half used; moved most groups out to other buildings

Question: If Hoyt not good for MSCR use, could it be (site) better used for West H.S.?

- Can't get buses / taxis to back area of building site now (Hoyt)
- 3. How do current facilities compare to other K-12 sites/districts familiar with?
 - Like new McFarland School renovations: new look/feel
 - Open spaces; lighting options; nice facilities
 - Community users: "... we pay taxes, user fees, etc. and the facilities are old and not very nice to use...where does our tax money go?" (comments received)
 - Locker Room at Madison Schools are really dated; poor condition
 - o Noted: District is now doing a Title 9 assessment for girls facilities
 - Also transgender students (looking at facilities for)
 - Like Madison College set-up with open spaces
 - o Good design layout and capabilities
 - Daylighting; energy efficiencies; esthetics
- 4. Outside the box ideas for MMSD facilities?
 - Stand-alone sports complex (multi-use)
 - Currently lack a City "rec center" facility
 - Use small facility spaces; schools
 - Good if MSCR could build a complex for community use
 - Also now rent church space for some adult programs

Question to team: What if sold Hoyt, bought land somewhere and built a large sports/community use facility?

- Would help get adults out of schools after hours
- Free-up space for school programs/sports
- Helps with safety/security concerns

Professional Development facilities/site for 250 – 350 persons

- If they could tie together (with rec complex) would be nice
- Joint staff wellness facility for staff and district employees.

Question: Could MMSD owned site(s) on east side, not used at this time, be developed for sports facility use?

- Temporary outdoor fields and complex facilities (short term)
- Leopold Elementary has extra site space (not utilized)
 - o Could MSCR move there?
 - o Could Central offices also go there?
 - o These are some of the things/options MMSD needs to look at
- 5. Site and content specific input / recommendations? Memorial High School:
 - Storage issues
 - Goofy layout; long corridors; maze to navigate
 - Hard to find way to gym; pool; field house
 - Poor visitor/user wayfinding
 - MSCR has small office (off of Gym); others are splintered off
 - Takes storage away from Gym
 - Pool needs a facelift redo of pool
 - West's pool is not being renovated now; this is on hold until big picture determined
 - Need new dividers; old failing
 - Lighting not good; some updates made, but sporadic
 - Not consistent lighting in field house; bad spots
 - Theater redo needed; renovation
 - Weight rooms redo and possible consolidation

West High School:

- Parking is an issue (big issue) at West for users
- Pool access is bad; confusing to get to and locate
- Pool deck is small, locker rooms are bad; poor location(s)
- No track (outdoor track) at West; has been an ongoing issue
- Club space use is high/big at West; lack spaces for
- Questioned if a turf field could be placed over the geo-thermal field (?)
- Questioned if there are track options at/near West HS (?)
- Soccer field option at/near West?



La Follette High School:

- Theater redo needed
- Lack MSCR office space for use; meetings
- L.M.C. space seems small (Kelly): poor utilization
 - o If more collaborative design could use for MSCR
- Auditorium needs work

East High School:

- Many hallways feels cold; masonry and bars on windows
 - o Many altercations/fights happen in "mall" open space
 - Challenge for school; security
- Locker Rooms huge; old; not accessible; bad
- Building a new spectator gym at East (May 2019 start); comp gym
 - o Upgrades to existing gym
- 6. What ONE facilities related improvement would be a Game changer at West?
 - Dedicated MSCR complex
 - Get adult programs out of schools
 - o Schedule adult programs better; AP's start at 7:15pm now; limits use
 - Pool; Gym(s); Fitness space(s); meeting rooms

Question: Ideal Location if could provide a Complex?

- As Central as possible
- Near East High School or newer West High School location for new facility
- Would still utilize some smaller sites
- Should be on bus/transit line
- 7. Additions Comments?
 - Have outgrown Odana site/facility
 - School Forest area (Verona) looking at options for new uses

The above is our understanding of matters discussed and conclusions reached. Participants are asked to review these items and advise of any additions or corrections.

Respectfully,

Zimmerman Architectural Studios, Inc.

Appendix C: Single Sheet Boards

James Madison Memorial High School



COMMONS/COURTYARD

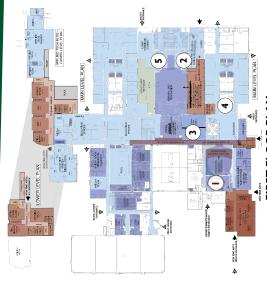


COMMONS/CAFETERIA

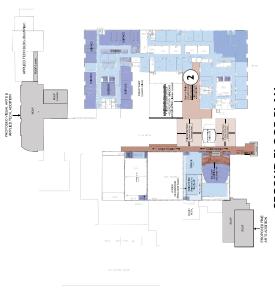


COLLABORATIVE SPACES





FIRST FLOOR PLAN



SECOND FLOOR PLAN

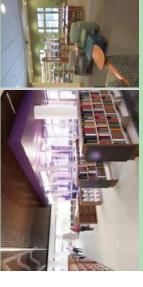


ADDITION (PROPOSED)

RENOVATION - HEAVY

RENOVATION - LIGHT

INTRODUCTION



MAKER SPACE





MADISON METROPOLITAN Student-Centered Flexible Learning Environment

RENOVATED CLASSROOM



EXISTING CONDITIONS



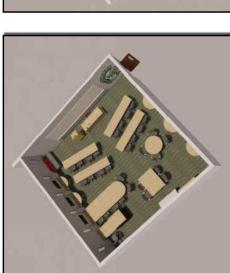
RENOVATED CLASSROOM

- Updated furniture variety per instructional use; mobile flexible, ergonomically friendly
 - Flexibility of instruction space enhanced by mobility of
 - Teaching wall(s) upgraded; White boards to replace chalkboards; mobile and visual technology enhanced
- Upgrades to finishes will be implemented, while keepi "conventional classroom". The flexibility allows for learning in new ways and encourages collaboration as smaller groups allow for more input from individual Creation of space begins with a new look at the

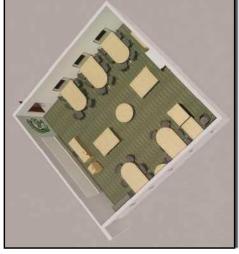
EXISTING CLASSROOM

students who may not otherwise be involved.

- Teaching walls in need of upgrade Lighting in need of upgrading to LED Electrical capability/flexibility lacking
- Dated casework; finishes (flooring, paint, ceilings, etc.)



STUDENT-CENTERED LAYOUT



BREAK-OUT/ COLLABORATION



Science Learning Environments - Proposed Improvements



- RENOVATED SCIENCE CLASSROOM

 orgonomically fineding

 respondingly fineding

 Flexibility of instruction space enhanced by mobility of furniture

 Flexibility of fineturaction space enhanced by mobility of furniture

 Flexibility of fixed land accessory failands to increase space flexibility

 Remove temporary vality resized/reads more appropriate room
 sizes per instruction use fast practical

 Upgrade room electrical capabilities and flexible locations

 Remove accessibility barriers; provide fully accessible spaces,

- casework and equipment

 New science assework to enhance current instructional needs

 Lighting will be upgraded; zoned appropriately

 Teaching wal(s) upgraded; whole board to replace chalkboards;

 mobile and visual technology enhanced

 Upgrades of finishes will be implemented, while keeping

 Upgrades of finishes will be implemented, while keeping

 cellings

 New themally efficient windows; appropriate window shading light control

EXISTING CLASSROOM

- lacking

 Dated casework and counter tops
 in poor condition

 Ceilings in bad condition; dated
 finishes (in general)
- EXISTING CLASSROOM

 Temporary walls are poor for
 support rooms in need of upgrades;
 modernization
 Teaching walls in need of upgrade
 Lighting in need of upgrade
 Light capability/flexibility





EXISTING FURNITURE

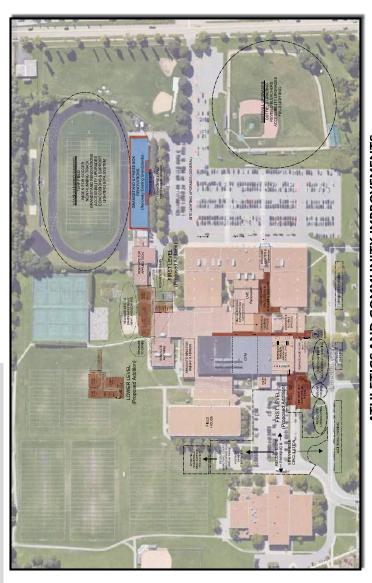
EXISTING FURNITURE • Non-flexible, non-ergonomically friendly furniture • Fixed student lab peninsulas restrict usefflexibility







MADISON METROPOLITAN Athletics and Community Improvements



ATHLETICS AND COMMUNITY IMPROVEMENTS

- Locker rooms to undergo complete overhaul providing accessibility, all-gender rooms, and Title 9 compliance
 - Practice spaces redeveloped/improved
- · Competition spaces refreshed; accessibility upgrades · Pool renovations/updates
 - Weight room improved; fitness center • Mansfield Stadium upgrades:
 - 2. Widen for soccer l. Turf field
- 3. New running track

Outfield grading
 Revised bleachers
 Accessibility upgrades
 Field lighting

Baseball upgrades:

- Grandstand and press box
- Concessions and support 4. Grandstand and press bo5. Concessions and support6. Lighting and PA system

EXISTING CONDITIONS

- Insufficient locker room space; poor accessibility; aged facilities
 Support rooms in need of upgrades;

 - modernization
 LED
 Cellings in need of upgrading to
 LEO
 Cellings in bad condition; dated
 finishes and fixtures (in general)
 accessible
 accessible and fixtures accessible and read in part of the condition
 Track and field in poor condition

















Appendix D: Detailed Estimate



Baseball Field Site Area

MADISON METROPOLITAN SCHOOL DISTRICT

Memorial High School, Option 02, Alternate B.2

Description	Project Cost	Function
Sitework		
General Sitework		
Site Clearing - asphalt, concrete, landscaping, etc		BF - Building Functionality
Earthwork, Cut/Fill/Gen Grading		BF - Building Functionality
Asphalt Paving, north lot areas		BF - Building Functionality
Curb - Drivelanes		BF - Building Functionality
Sidewalks		BF - Building Functionality
Dumpster enclosure - Excluded		BF - Building Functionality
Generator enclosure - Excluded		BF - Building Functionality
Landscaping		BF - Building Functionality
Seeding		BF - Building Functionality
Courtyard, Renovations		BF - Building Functionality
Greenhouse		BF - Building Functionality
Stormwater, Pipe		BF - Building Functionality
Stormwater, Structures		BF - Building Functionality
Stormwater, Outlets		BF - Building Functionality
Stormwater Retention Area - SEE BELOW		BF - Building Functionality
Site Electrical, Conduit		BF - Building Functionality
Relocate transformer from vault to pad		BF - Building Functionality
Site Electrical, Lighting		BF - Building Functionality
Stormwater Ordinance Change Impacts		
Stormwater Basins, small parking adds		BF - Building Functionality
Underground Storage (sim. StormTec), athletic field (3,000 cf)		BF - Building Functionality
Underground Storage (sim. StormTec), grandstand/restroom/lockers (5,000 cf)		BF - Building Functionality
Underground Storage (sim. StormTec), baseball field (600 cf)		BF - Building Functionality
Stormwater Basin, north of field house (Theater Addition)		BF - Building Functionality
Courtyard Enclosure, Green Roof - 4" (55% coverage)		BF - Building Functionality
Football / Soccer / Track Site Area		
Strip Asphalt / Topsoil		AC - Athletics / Community
Remove grandstands (precast/steel) - Excluded		AC - Athletics / Community
Remove existing locker room building - Excluded		AC - Athletics / Community
Asphalt Paving - Pedestrian Plaza		BF - Building Functionality
Artificial turf		AC - Athletics / Community
Field lighting - relocate existing		AC - Athletics / Community
Track, new layout		AC - Athletics / Community
Track drain		AC - Athletics / Community
Fencing, track inside		AC - Athletics / Community
Fencing, track revenue control - reuse existing 75%		AC - Athletics / Community
Reno Grandstands - Demo seating and rails		AC - Athletics / Community
Reno Grandstands - Epoxy coating		AC - Athletics / Community
Reno Grandstands - Sandblast / Paint steel structure		AC - Athletics / Community
Reno Grandstands - New bench seating		AC - Athletics / Community
Reno Grandstands - New railings / Handrails		AC - Athletics / Community
Reno Grandstands - Ramp Assemblies		AC - Athletics / Community
Reno Grandstands - ADA Extensions		AC - Athletics / Community
Reno Grandstands - Pressbox improvements		AC - Athletics / Community
Reno Grandstands - Backside screening (?)		AC - Athletics / Community
Reno Grandstands - Decorative fencing at ticketing		AC - Athletics / Community
Below seating paving		AC - Athletics / Community
Locker Rooms Building (Reno Existing)		BF - Building Functionality
Ticketing / Concessions / Public Restrooms Buildings		BF - Building Functionality
Scoreboard, relocate		AC - Athletics / Community
Sidewalks		BF - Building Functionality
Landscaping		BF - Building Functionality
Seeding		BF - Building Functionality
Stormwater, Pipe		BF - Building Functionality
Stormwater, Structures		BF - Building Functionality
Stormwater, Outlets		BF - Building Functionality



Memorial High School, Option 02, Alternate B.2

Topical, Strip/Spread Remove fearing Baseball Field, Designation of the strip of th	Description		Project Cost	Function
Remove diagouts - Excluded Remove fencing Baschall Field, field improvements Artificial turf infield Baschall Field, Upptrol) Renovations Baschall Field, Upptrol) Renovations Baschall Field, Upptrol Packer Seats	Topsoil, Strip/Spread			AC - Athletics / Community
Baseball Field, feld improvements Artificial turf infield Baseball Field, Deputing Renovations Baseball Field, Sender Seats Baseball Field, Sender Sender Seats Baseball Field, Sender Sender Seats Baseball Field, Sender Send				AC - Athletics / Community
Artificial turi finited	Remove fencing			AC - Athletics / Community
Authoria furnimental vertine de vertine de vertine familier vertine filled vertine familier vertine filled vert	Baseball Field, field improvements			AC - Athletics / Community
Baseball Field, Disporting Fenovations Baseball Field, Endenfing Baseball Field, Fenoring Baseball Field, Fenoring Baseball Field, Fenoring Baseball Field, Lighting - existing to remain Sidewalks Landscaping Seeding Sitework Total 10,815,0000 Fenovation Fe	Artificial turf infield			AC - Athletics / Community
Baseball Field, Bleacher Soats Baseball Field, Lighting existing to remain Sideworks Landscaping Seeding Stework Total 10,815,000 Fenovation Carleteria Circuration Classrooms Small Theater Space, VE to Level 1 Cafeteria Circuration Casteria Circuration Casteria Circuration Casteria Circuration Casteria Commons Small Theater Space, VE to Level 1 Cafeteria Commons Commons Commons Concessions Gilles Concessions Con	Artificial turf infield - VE to eliminate artificial turf			AC - Athletics / Community
Baseball Field, Fehrung Sidewalks Landscaping Seeding Sitework Total 10,815,000 Renovation Reno. Level 01 Cafeteria Circulation Classrooms Small Theater Space, VE to Level 1 Cafeteria Commons Commo	Baseball Field, Dugout(s) Renovations			AC - Athletics / Community
Baseball Field, Lighting - existing to remain Sidewals Landscaping Seeding Stework Total 10,815,000 Fenovation Reno, Level 01 Carteria Circlustion Classrooms Small Theater Space, VE to Level 1 Cafferia Commons	Baseball Field, Bleacher Seats			AC - Athletics / Community
Sidewalks Landscaping Seeding Sitework Total 10,815,000 Renovation Renovation Renovation Calesteria Circulation Classrooms Small Theater Space, VE to Level 1 Statemore Commons Commons Control Co	Baseball Field, Fencing			AC - Athletics / Community
Landscaping Sitework Total 10,815,000 Renovation Clarstoon Clarstoon Small Theater Space, VE to Level 1 Carteria Commons Commons Commons Comessions Offices Pool Renovation R				
Sitework Total 10,815,000				BF - Building Functionality
Renovation Reno, Level O1 Cale teria Circulation Classrooms Small Theater Space, VE to Level 1 Cale teria Commons Commons Commons Commons Concessions Offices Pool Stairs Storage Tech Ed Reno, Level O2 Library / LMC Reno, Level O3 Library / LMC Reno, Level O3 Reno, Level O4 Library / LMC Reno, Level O5 Library / LMC Reno, Level O5 Library / LMC Reno, Level O5 Reno, Level O5 Library / LMC Reno, Level O5 Reno, Level O5 Library / LMC Reno, Level O5 Library / LMC Reno, Level O5 Reno, Le				-
Renovation Reno_Level 01 Cafeteria Carletteria Circulation Classrooms Small Theater Space, VE to Level 1 Cafeteria Commons Commons Commons Comcessions Offices Br Building Functionally Stairs Commons Comcessions Offices Pool Stairs Storage Pool Storage Tech Ed Reno_Level 02 Library / LMC Reno, Level 03 Auditorium, 700 seat capacity Stage / Fly Circulation Classrooms Balcony, 100 seat capacity Stage / Fly Circulation Classrooms Library / LMC (See Reno, Level 02) - Excluded Locker Rooms, restroom/shower locations Menhancal Room Music Rooms Mechanical Room Music Rooms Mechanical Room Music Rooms Science Labs Stairs Restrooms Science Labs Stairs Restrooms Science Labs Stairs Restrooms Restroom Restrooms Restroom Restrooms Restroom Restrooms Restroom Restroom Restrooms Restroom	Seeding	Sitework Total	10.815.000	BF - Building Functionality
Reno, Level 03 Cafeteria Circulation Classrooms Small Theater Space, VE to Level 1 Cafeteria Commons Commons Concessions Offices Concessions Offices Pool Stairs Stairs Staria Staria Staria Storage Tech Ed Library / LMC Reno, Level 02 Library / LMC Reno, Level 03 Auditorium, 700 seat capacity Salcory, 100 seat capacit			.,	
Cartesria Circulation Classrooms Small Theater Space, VE to Level 1 Cartesria Cartesria Commons Commons Concessions Concessions Offices Offices Offices Offices Offices Offices Offices Offices Offices Concessions Storage Tech Ed Reno, Level O2 Library / LMC Reno, Level O2 Staces of Five Administrations Classrooms Cantella Maintenance Capital Ma				
Circulation Classrooms Small Theater Space, VE to Level 1 Cafeteria Commons Concessions Offices Concessions Offices Pool Stairs Storage Tech Ed Reno, Level 02 Library / LMC Reno, Level 03 Library / LMC Reno, Level 03 Library / LMC Staccasting Space Reno, Level 04 Library / LMC See Reno, Level 02 Library / LMC See Reno, Level 03 Library / LMC See Reno, Level 04 Reno, Level 05 Reno, Level 05 Library / LMC Reno, Level 05 Library / LMC See Reno, Level 06 Library / LMC See Reno, Level 07 Library / LMC See Reno, Level 08 Library / LMC See Reno, Level 09 Library / LMC See Reno, Level 09 See Reno, Level 00 See Reno, Level 0				BF - Building Functionality
Classrooms Small Theater Space, VE to Level 1 Carfeteria Br. Building Auctionately Commons Concessions Offices Offices Pool Stalins Stalins Storage Tech Ed Reno, Level 02 Library / LMC Reno, Level 03 Auditorium, 700 seat capacity Balcony, 100 seat capacity Balcony, 100 seat capacity Circulation Classrooms Library / LMC Cee Reno, Level 02) - Excluded Locker Rooms, restroom/shower locations Library / LMC Cee Reno, Level 03 Reno, Level 03 Stalins Storage Stalins Storage Stalins Storage Reno, Level 03 Auditorium, 700 seat capacity Balcony, 100 seat capacity Balcony, 100 seat capacity Balcony, 100 seat capacity Balcony, 100 seat capacity Stalins Storage Weight Room MON OSSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Mechanical upgrade add costs beyond Level 02 Solar Panels Sun - Building Auditonance Mechanical upgrade add costs beyond Sevond Sevond Sun - Sulidinance Mechanical upgrade add costs beyond Sevond Solar Panels Sun - Sulidinance Sun -				
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Storage Tech Ed Reno, Level 02 Library / LMC Reno, Level 03 Auditorium, 700 seat capacity Balcony, 100 seat capacity Balcony, 100 seat capacity Balcony, 100 seat capacity Stage / Fly Circulation Classrooms Library / LMC (See Reno, Level 02) - Excluded Locker Rooms, restroom/shower locations Music Rooms Music Rooms Music Rooms Music Rooms Scene Shop Science Labs Stairs Science Labs Stairs Storage Weight Room NON GSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Bir Building Functionalty Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Bir Building Functionalty Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Bir Building Functionalty Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Bir Building Functionalty Meriance Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Bir Building Functionalty Meriance Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Bir Building Functionalty Bir Buil	Pool			AC - Athletics / Community
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Library / LMC Reno, Level 03 Auditorium, 700 seat capacity Balcony, 100 seat capacity Stage / Fly Circulation Classrooms Library / LMC (See Reno, Level 02) - Excluded Locker Rooms, restroom/shower locations Mechanical Room Music Rooms Offices Be-Building Functionality Restrooms Offices Stairs Stairs Stairs Stairs Stairs Stairs Stairs Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Capital Maintenance Capital Maintenance, Roofing VE Sprinkler / re- light "non-reno" spaces Mechanical upgrade add costs beyond Level 02 Mechanical upgrade add costs beyond Level 02 Mechanical upgrade add costs beyond Level 02 Solar Panels Fe- Building Functionality Be- Building	Tech Ed			ES - Educational Spaces
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Balcony, 100 seat capacity Stage / Fly Circulation Classrooms Library / LMC (See Reno, Level 02) - Excluded Locker Rooms, restroom/shower locations Mechanical Room Mechanical Room Br - Building Functionality Music Rooms Offices Restrooms Scene Shop Scene Shop Science Labs Science Labs Stairs Storage Weight Room MON GSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Capital Maintenance Capital Maintenance Capital Maintenance, Roofing VE Sprinkler / re-light "non-reno" spaces Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Br - Building Functionality Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Br - Building Functionality Mechanical upgrade add costs beyond Level 02 Br - Building Functionality Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Br - Building Functionality Br - Building Functionality Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Br - Building Functionality Br - Building Functionality Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 03 Br - Building Functionality Br - Building Functionality Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 03 Br - Building Functionality				
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Music Rooms Offices Offices Restrooms Restrooms BF - Building Functionality Scene Shop Science Labs Science Labs Science Labs Stairs Storage Weight Room MN GSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Capital Maintenance Capital Maintenance Capital Maintenance, Roofing VE Sprinkler / re-light "non-reno" spaces Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Solar Panels BF - Building Functionality BF - Building Functionality CM - Capital Maintenance CM -				
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Restrooms Scene Shop Science Labs Science Labs Stairs Storage Weight Room NON GSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Capital Maintenance Capital Maintenance Capital Maintenance, Roofing VE Sprinkler / re-light "non-reno" spaces Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Solar Panels ES - Building Functionality BF - Building Functionality Capital Maintenance CM - Capital				
Scene Shop Science Labs Science Labs Stairs Stairs Storage Weight Room MON GSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Capital Maintenance Capital Maintenance Capital Maintenance Sprinkler / re-light "non-reno" spaces Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Solar Panels ES - Educational Spaces ES - Educational Space				-
Science Labs Stairs String BF - Building Functionality Storage BF - Building Functionality Weight Room AC - Athletics / Community NON GSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Capital Maintenance Capital Maintenance Capital Maintenance Capital Maintenance Capital Maintenance, Roofing VE Sprinkler / re-light "non-reno" spaces Mechanical upgrade add costs beyond "No Work" space Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Solar Panels				,
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Storage Weight Room NON GSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Capital Maintenance Capital Maintenance Capital Maintenance, Roofing VE Sprinkler / re-light "non-reno" spaces Mechanical upgrade add costs beyond "No Work" space Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Solar Panels				
Weight Room NON GSF Impacts Reduce Restroom Ceramic Wall Tile to 6' on wet wall only Capital Maintenance Capital Maintenance Capital Maintenance, Roofing VE Sprinkler / re-light "non-reno" spaces Mechanical upgrade add costs beyond "No Work" space Mechanical upgrade add costs beyond Level 01 Mechanical upgrade add costs beyond Level 02 Solar Panels AC - Athletics / Community BF - Building Functionality				
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Mechanical upgrade add costs beyond Level 02 Solar Panels CM - Capital Maintenance BF - Building Functionality	· -			
Solar Panels BF - Building Functionality				
	· -			



Memorial High School, Option 02, Alternate B.2

Description	Project Cost	Function
ADD SCOPE: Sustainable Amenities		BF - Building Functionality
<u>Abatement</u>		CM - Capital Maintenance
Abatement, by gsf		CM - Capital Maintenance
- Flooring Removal included above		CM - Capital Maintenance
Renovation Total	42,917,000	
New Construction, Classroom Infill Space		
Core	88,000	0
Floor Structure 00 (SOG)		CS - Core & Shell
Roof Structure		CS - Core & Shell
Shell	70,000	0
Ext Wall System - Non-load bearing studs, 1 elevation		CS - Core & Shell
Brick - Sills/Lintels		CS - Core & Shell
Stone and/or Precast - Sills/Lintels		CS - Core & Shell
Metal Panel - Excluded		CS - Core & Shell
Storefront		CS - Core & Shell
Curtainwall - Excluded		CS - Core & Shell
Doors - Excluded		CS - Core & Shell
Roofing & Accessories		CS - Core & Shell
Buildout Classrooms	138,000	ES - Educational Spaces
New Construction, Classroom Infill Space Subotal	296,000	ES - Educational Spaces
	===,	
ew Construction, Courtyard Infill Core	1,075,000	0
Floor Structure 00 (SOG)	1,073,000	CS - Core & Shell
Roof Structure		CS - Core & Shell
Adjacent Snow Load Accomodations		CS - Core & Shell
Roof Structure / Overhang		CS - Core & Shell
Shell	715,000	0
Ext Wall System - Non-load bearing studs, above existing roof line		CS - Core & Shell
Brick - Sills/Lintels - Excluded		CS - Core & Shell
Stone and/or Precast - Sills/Lintels - Excluded		CS - Core & Shell
Metal Panel		CS - Core & Shell
Storefront		CS - Core & Shell
Curtainwall		CS - Core & Shell
Doors - Excluded		CS - Core & Shell
Roofing & Accessories		CS - Core & Shell
Buildout	956,000	0
Collaboration / Circulation Space New Construction, Courtyard Infill Subotal	2,746,000	BF - Building Functionality
·	, ,	
ew Construction, Tech Ed Connection Core	1,754,000	0
Floor Structure 00 (SOG)	_,,. 5	CS - Core & Shell
Floor Structure 01		CS - Core & Shell
Roof Structure		CS - Core & Shell
Adjacent Snow Load Accomodations		CS - Core & Shell
Shell	1,998,000	0
Ext Wall System - Non-load bearing studs		CS - Core & Shell
Brick - Sills/Lintels		CS - Core & Shell
Stone and/or Precast - Sills/Lintels		CS - Core & Shell
Metal Panel		CS - Core & Shell
		C3 - COTE & STIEII
Storefront		CS - Core & Shell
Storefront		CS - Core & Shell
Storefront Curtainwall		CS - Core & Shell CS - Core & Shell
Storefront Curtainwall Doors	3,193,000	CS - Core & Shell CS - Core & Shell CS - Core & Shell



Memorial High School, Option 02, Alternate B.2

escription	Project Cost Functi
Classrooms, A.T.	ES - Educational Spar
STEM	ES - Educational Space
Art	ES - Educational Spa
Offices	ES - Educational Spa
Restrooms	AC - Athletics / Comr
Storage	BF - Building Functio
-	
Mechanical New Construction, Tech Ed Connection Subotal	6,945,000 BF - Building Functio
Construction Fine Auto	
w Construction, Fine Arts Core	837,000 0
Floor Structure 00 (SOG)	CS - Core & Shell
Roof Structure	CS - Core & Shell
	CS - Core & Shell
Adjacent Snow Load Accomodations	
Shell	1,188,000 0
Ext Wall System - CMU	CS - Core & Shell
Brick - Sills/Lintels	CS - Core & Shell
Stone and/or Precast - Sills/Lintels	CS - Core & Shell
Metal Panel	CS - Core & Shell
Storefront	CS - Core & Shell
Curtainwall	CS - Core & Shell
Doors	CS - Core & Shell
	CS - Core & Shell
Roofing & Accessories	
Buildout	1,691,000 0
Band & Orchestra	ES - Educational Spar
Circulation, lower	ES - Educational Spa
Restrooms	ES - Educational Space
Scene Shop	ES - Educational Space
Storage	ES - Educational Space
New Construction, Fine Arts Subotal	3,716,000
w Construction, Theater Vertical Connection	
Core	944,000 0
Floor Structure 00 (SOG)	944,000 0 CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure	CS - Core & Shell CS - Core & Shell CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure	CS - Core & Shell CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure	CS - Core & Shell CS - Core & Shell CS - Core & Shell CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF	CS - Core & Shell 0
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront Curtainwall	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront Curtainwall Doors	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront Curtainwall Doors Roofing & Accessories	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront Curtainwall Doors Roofing & Accessories	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront Curtainwall Doors Roofing & Accessories	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront Curtainwall Doors Roofing & Accessories Buildout	CS - Core & Shell
Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront Curtainwall Doors Roofing & Accessories Buildout Vestibule Lobby	CS - Core & Shell
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Floor Structure 00 (SOG) Floor Structure 01 Roof Structure Roof Structure / Canopy Shell Ext Wall System - CFMF Brick - Sills/Lintels Stone and/or Precast - Sills/Lintels Storefront Curtainwall Doors Roofing & Accessories Buildout Vestibule Lobby	CS - Core & Shell CS - Bullding Functio BF - Building Functio BF - Building Functio
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