MANCHESTER
SCHOOL DISTRICT

McLaughlin Middle School

Educational and Facilities Master Plan

smma

Table of Contents

Summary

Included in this report are assets that were collected during the long term facility planning process. Each school's report package contains an At-A-Glance summary report, Facility Evaluation Criteria sheets, and site plan(s). Site plans are included to illustrate the context of the building in relationship to the city, neighborhood, and other adjacent amenities and parcels. The At-A-Glance summary sheets include general information about each school building including school data, such as population and grade structure, etc., site and building data, tax assessor's information, community uses, State of NH Code of Administrative Rules, Operational Data, and Cost model information for repairs and renovations. The Facility Evaluation Criteria sheets are the facility assessment team's findings at each Tier 1 school building including building physical assets, sites, and educational facility effectiveness. On April 24, 2023, the assessment team visited all the Tier 1 school buildings.

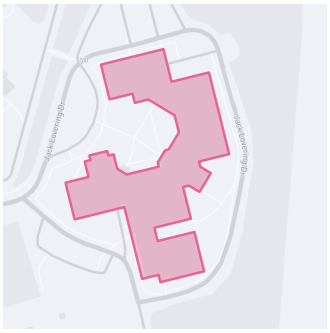
SCHOOL NAME

McLaughlin Middle School

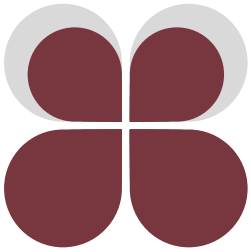
SITE VISIT

August 2023

At-a-Glance



FA: Building FA: Site



EFE: Learning EFE: Spaces

Excellent Deficient

Address
201 Jack Lovering Drive, Manchester, NH 03109

Gross Square Footage (GSF)
105,000 sf

Grades
6th Grade–8th Grade

Site Acreage
41.3

Hours of Operation
7:25 am - 2:20 pm

Date of Construction
1998

2022—2023 Enrollment
665

Date of Addition Construction
2005

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

Site Plans

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

SCHOOL NAME
McLaughlin Middle School

SITE VISIT
August 2023

Facility Evaluation Criteria

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Roof Membrane (Architectural)		●			
	"Sloped Roofs are new PVC, flat roofs are existing EPDM- need replacement. Leaking at sloped PVC at snow guard roof penetrations."				
Existing Photovoltaics					○
	"N/A"				
Space for Solar on Roof					○
	"There appears to be some flat roof area available for PVs. (Structural analysis will be required). The sloped roofs have been recently replaced with ribbed PVC roofing which is not appropriate for PV panels without roof blocking and penetrations for mechanical attachment points. Exact locations and SF size can be evaluated."				
Façade	●				
	"Building facade is in good shape. Minor areas of brick repointing, rust repair at hollow metal door frames, and repainting will be required in the future. Some areas of excessive water in brick cavity at expansion joints and roof edge fascia joints was observed."				
Windows		●			
	"Windows are aluminum framed, double paned thermal windows and in good shape. Vertical window blinds appeared to be in need of repair or replacement in several areas."				
Boilers (Mechanical)		●			
	"(2) Two gas-fired boilers are original (1997) to the building. New gas fired burners were installed over the years. Boilers are fully operational. Boilers' venting is in a good condition. Boilers are on the city facilities department's short list for replacement."				

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

Facility Evaluation

Physical Analysis

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Boilers (Plumbing)	●				
"Refer to mechanical report for HVAC Boilers. Domestic water heaters - the hot water is heated by a gas fired Lochinvar AWN200PM 199,999 BTU/HR heater with a 119 gallon storage tank. The piping arrangement (mixing valve, circ pump, etc) and equipment appears to be newer than the original. The storage tank has a tag with a date of 2019. The kitchen is also provided with a booster water heater. The water heater is an electric (480 volt/3 phase/24kw) Hatco Model C-24.This water heater was installed in 2021."					
Heating Distribution Systems	●				
"Hot water heating distribution system and its terminals are in a good operational condition. Unit heaters, cabinet unit heaters and finned radiation are in a good condition and operational."					
Building Envelope Thermal Performance	●				
"Not all building entrances have vestibules."					
Interior Finishes	●				
"Interior finishes have been well maintained and overall in good shape. There are minor isolated areas where walls are in need of patching and repainting. 2x4 ceiling tiles are prone to warping and bowing. VCT at stage ramp is slippery and should be replaced with slip resistance floor material. Casework and plastic laminate countertops are in need of repair in several areas."					
Rooftop HVAC Equipment	●				
"Roof top units and indoor air handling units are original and in a good operational condition. New RTU serving locker rooms was installed recently."					
HVAC Controls	●				
"Building Management System (BMS) controls are fully operational. School BMS is a part of the city-wide BMS run by the City. The BMS is Johnson Controls, Metasys."					
Technology Infrastructure				●	
"Bandwidth of fiber optic and copper network cabling is inadequate for School Communications. Telecom Rooms are not adequately secured allowing staff to use them for storage."					
Technology Systems				●	
"Telephone and WiFi systems are at the end of useful life. Network switches have been recently replaced. Not all Telecom Rooms are air conditioned, leaving equipment vulnerable to overheating."					

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

Facility Evaluation

Physical Analysis

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Security Systems		●			
"The City is working with a Security Systems Vendor to deploy 500 CCTV cameras throughout the District's Schools. Adequate bandwidth is a concernfor transmitting video. Notification and Lock Down systems are not present. Indoor cellular signal booster system is desired."					
Kitchen Equipment and Systems (Architectural)	●				
"Kitchen equipment and space appears to be adequate and in good working order. Tray holders along servery line is wood."					
Kitchen Equipment and Systems (Electrical)			●		
"Kitchen disconnect switches observed to be installed under countertops and therefore are not provided with sufficient clearances in front and above of them for maintenance purposes per Code requirements. Kitchen duplex receptacles must be GFCI protected per Code, which currently observed as non-GFCI type."					
Kitchen Equipment and Systems (Plumbing)	●				
"The kitchen plumbing fixtures and equipment appeared well maintained and in good working order. Natural gas is piped to the double convection oven, steam cooker, fryer, and tilting skillet. No noticeable concerns with exposed plumbing piping."					
Natural Gas Distribution System	●				
"Natural gas - the meter/service have been replaced. The exterior of the gas piping within the mechanical room is rusting in a few locations, however the system seems to be in good working order. Review of distribution was limited to the service and exposed piping within the mechanical room and kitchen. Photos are included in the 'Current Fuel Source' section of this report."					
Current Fuel Source	●				
"The building is provided with a natural gas service consisting of a meter and regulator. The service appears to have been upgraded recently as the piping looks relatively new. The gas feeds boilers, the domestic water heater, emergency generator, and kitchen equipment. The piping is labeled 2 PSI in a few locations. Visual inspection of the gas piping was limited to piping that was exposed. Piping above ceilings was not observed. Although original piping in the mechanical rooms and in the kitchen chase have rusty piping and fittings, overall, the system appears to be in good working order."					

SCHOOL NAME
McLaughlin Middle School

SITE VISIT
August 2023

REPORT TYPE
Facility Evaluation

Physical Analysis

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Generator	●				
	"The existing 75kW/93.7kVA 277/480v 3ph gas-fired emergency generator is indoor type, located in Mechanical/boiler room 199 on the 1st floor. It?s relatively small capacity, over 25 years old (installed in 1997), but still in fair operational condition. The generator currently supports the Life-safety loads (emergency egress lights and exit signs) and the Standby loads (boilers and heating system pumps, kitchen refrigeration equipment, outdoor sanitary pump station) via (2) Automatic Transfer Swithes (ATS) and power distribution panels located adjacent to the generator. The generator?s source is natural gas, which may not be considered a ?reliable source?, while the generator currently supports the Life-safety loads (emergency egress lights and exit signs) ? the gas source concept usually requires approval by AHJ (Building Inspector) and advised to be reviewed."				
Elevator		●			
	"Due to age of elevator, controls replacement may be required and cab finishes need to be updated."				
Ventilation Distribution Systems	●				
	"Ventilation system is in a good operational condition. The city facilities department is planning to install DX coils into the current HRUs/AHUs serving classrooms and some additional spaces and install associated air condensers to air condition ventilation air. Exhaust systems (fans) appear to be original to the building, but fully operational."				
Electrical Services	●				
	"Exterior pad-mounted utility transformer by PSNH with wall-mounted utility meter. The Main Distribution Switchboard MDS is rated 1,200 Amp 277/480v 3ph 4w, It's located in the Main Electrical room 198 on the 1st floor. The MDS was installed in 1997, and is now in fair operational condition. Power is distributed from the Switchboard to panels and stepdown transformers installed throughout the original 1997 school building areas and the 2001 building additions. Panels and transformers throughout were observed in good operational condition."				
Life Safety: Means of Egress (Architectural)		●			
	"Egress stairs do not have continuous handrails on the inner side. Quantity and locations of egress stairs and doors appear to be adequate."				
Life Safety: Means of Egress (Electrical)	●				
	"AC-operated internally-lighted LED exit signs and dedicated lights powered from the generator power distribution system are provided along the egress pathways. Observed in adequate, operational condition. A few exit signs though appear older and shall be replaced."				

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

Facility Evaluation

Physical Analysis

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Life Safety: Fire Protection (sprinklers)	●				

"The building is provided with automatic sprinklers throughout. A 6-inch fire protection service enters a combined water/fire service room. After the check valve, there is a dry pipe valve (serving the wood framed attic), 3 wet system risers, and a 4-inch run to the fire department connection. Overall, the piping appears to be in good working order. The hydraulic data placards are not legible. NFPA requires representative sample testing of fast response sprinklers at 20 years. Given the installation date, the sprinkler system is approximately 26 years old. Testing is recommended."

Life Safety: Fire Alarms	●				

"A new Fire Alarm system was designed and installed in 2017, including all new devices and new wiring throughout. The new FA system is addressable, manufactured by Notifier, consisting of addressable smoke and heat detectors, pull stations, speaker/strobes and strobe only units, connections to fire protection equipment. The FACP and radio master box are located in General offices 101C. All equipment was observed in good operational condition."

Security: Entry Sequence	●				

"Main entrance has controlled card access. Although office is adjacent to main entrance, there is no visual access to the exterior or into the main vestibule."

Lighting Quantity / Control	●				

"Interior lighting system in corridors, classrooms, cafeteria and some other areas was recently upgraded with LED 2'x4' and 2'x2' recessed type lighting fixtures with "basket reflector" design, while some other building areas remain with original lighting fixtures equipped with fluorescent T8 lamps. Gym lights were recently replaced with LED 2'x2' pendants equipped with integral occupancy sensors. In general, illumination levels throughout the building were observed to be adequate, and lighting fixtures mostly are in good operational condition. AC-operated internally-lighted LED exit signs powered from the generator are provided along the egress pathways. Observed in adequate, operational condition, however, a few exit signs look older and shall to be replaced. Corridor lights are time-controlled via a dedicated lighting control system. It was noticed that the recently replaced LED "basket" corridor lights are equipped with the built-in sensors, and some appeared to be activated for occupancy function, but observed reacting inconsistently onto motion. Suggesting to review the potential sensor settings and programming to allow maximum energy savings. Some classrooms have a multi-lamp or multi-row switching concept, while other classrooms have a group-dimming concept (all lights are dimmed simultaneously by one dimmer switch). It was noticed that the recently replaced classrooms' LED 2'x4' lights similar to corridor lights are equipped with the built-in sensors which seemed not activated. Suggesting to review the potential sensor functions and programming to allow maximum energy savings. There are no occupancy sensors or daylight sensors in many other areas. As well, there is no time controls in those areas is not compliant with the current Energy Conservation Code."

SCHOOL NAME
McLaughlin Middle School

SITE VISIT
August 2023

REPORT TYPE
Facility Evaluation

Physical Analysis

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Toilets and Fixtures		●			
	"The plumbing fixtures appear to be original with the exception of the water fountains. Many of the water fountains have been replaced with the newer bottle filling type. Flow rates were not able to be confirmed, but based on the age of the fixtures, it is assumed that they are not low flow fixtures. (Would not meet current sustainability requirements.) The fixtures are a little dated (26 years old). Replacement of fixtures with low flow updated fixtures should be considered for any major renovations."				
Plumbing Distribution Systems	●				
	"Domestic water - original piping is approximately 26 years old. Life expectancy is 25-40 years. The meter assemblies and hot water heater piping has been replaced. To confirm the current condition of the piping both a water quality test and selective destructive pipe testing is recommended. Currently the piping appears to be in good working order, however, the testing would give a better idea of the remaining lifespan. Natural gas - the meter/service have been replaced. The exterior of the gas piping within the mechanical room is rusting in a few locations, however the system seems to be in good working order. Storm and sanitary - visual inspection was limited to exposed piping only. Cast iron has a life expectancy of approximately 50 years. There were no signs that the piping needs to be replaced."				
Accessibility (Architectural)	●				
	"Generally, the building is accessible. There are several water fountains that impede into the required accessible route. Science classrooms only provide one accessible sink."				
Accessibility (Plumbing)	●				
	"Many plumbing fixtures appear to be ADA compliant. Refer to architectural report for additional accessibility information"				

Structural Systems: Signs of Deterioration Observed?

	YES	NO
Roof		✕
	"Roof framing primarily bar joist on couple bearing walls. Walls in great shape, no cracking or settlement observed. Pitched roofs are constructed with wood trusses."	
Floor		✕
	"Concrete floors on bar joists."	

SCHOOL NAME
McLaughlin Middle School

SITE VISIT
August 2023

REPORT TYPE
Facility Evaluation

Structural Systems: Signs of Deterioration Observed?

	YES	NO	
Walls / Columns		✕	
"CMU bearing walls throughout with isolated his columns scattered around."			
Foundations		✕	
"Foundation not visible however exterior walls appear to be in good condition."			
Façade		✕	
No comments.			
Is Lateral System Identifiable?	✓		
"Lateral system appears to caulk shear walls throughout the bldg."			

Community

	YES	NO	
Emergency Shelter	✓		
"Main Shelter for East Campus."			
Are there Separate Community / Non-School Spaces on Site?	✓		
The soccer field at McLaughlin is currently used by community recreation leagues. Parking facilities at Green Acres or McLaughlin may be used in connection with the field during non-school hours.			

SCHOOL NAME
McLaughlin Middle School

SITE VISIT
August 2023

Site Evaluation Criteria

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Parking Capacity	●				
	"Approximately 189 parking spaces, including ADA spaces."				
Parking Quality	●				
	"Parking lot pavement in decent condition."				
Ground Cover	●				
	"School is surrounded by lawn areas with some planters/ landscaping. There are unmaintained wooded areas outside of the loop road. There are two abandoned tree wells in the front courtyard in disrepair."				
Fields	●				
	"The school has a soccer/multiuse field in good condition."				
Neighborhood Streets	●				
	"Connection between school access drive and adjacent neighborhood road (Brady Cir.) blocked by swing gate, but accessible for pedestrians/bikes."				
Drop-off / Pick-up Routes	●				
	"Two way access drive, one way loop around building. Bus and visitor drop off loop off of main access loop."				
Walkways / Curbs / Sidewalks		●			
	"Mix of concrete and bit conc. walkways in varied condition. SGC along bituminous walkway and plazas, VGC along concrete walkways. Flush walkway, no curb along bus drop-off/front plaza. Site stair from middle school to elementary school playground in disrepair (blocked off at top of stair, may not be used)."				

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

Site Evaluation

Physical Analysis

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
ADA Accessibility		●			
"6 ADA spaces in visitor/ drop off area, 2 ADA spaces in primary lot (north of building), 1 ADA space in lot southwest of building (with kitchen staff parking spaces). Curb ramps in varying condition. ADA space near kitchen staff parking does not technically have an accessible route to the crosswalk."					
Site Lighting (Civil)	●				
"The parking areas and loop road are lit by light poles with LID fixtures. Poles and concrete bases in relatively good condition. There are wall mounted lights above exterior building doors."					
Site Lighting (Electrical)	●				
"Site lighting consists of pole-mounted and building-mounted LED lights, in good operational condition. Site lights are time-controlled by a dedicated lighting control system. A few exterior building-mounted lights at exterior doors appear "aged", and recommended for replacement."					
Fencing	●				
"Fencing is provided for safety at top of slopes around the site. There is additional fencing around the soccer field (chain link between field and access drive, white privacy fence between field and adjacent residential properties)."					
Drainage	●				
"At least two drainage swales visible. Catch basin network likely discharges to surrounding woods (only one outlet observed). Possible rain barrel in courtyard/ outdoor learning space for irrigation/education?"					
Play Areas	●				
"There is a soccer field, an outdoor learning courtyard, and some lawn/plaza areas with granite benches and wooden picnic tables, but no play area/play structure. The play at the adjacent elementary school is blocked off from the middle school side."					
Monuments and Memorials	●				
"None observed at this site."					
Walls / Slopes	●				
"Graded slope up from middle to elementary school, slopes down to woods along rear of site. No retaining walls. Fence and/or guardrails where slope is steep/tall."					

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

Site Evaluation

Physical Analysis

	YES	NO
Are there any Wetlands on Site?		✕
"NH GIS indicates wetlands on site, seems likely in wooded areas around perimeter (lower elevation than school, receive runoff / discharge from site)."		
Are there any Easements on Site?	✓	
"No easements per GIS. Parcel and site circulation shared with adjacent elementary school."		
Are Play Structures Age-Appropriate?	✓	
"There is a soccer field, an outdoor learning courtyard, and some lawn/plaza areas with benches and picnic tables, but no play area/play structure. The play at the adjacent elementary school is blocked off from the middle school side."		
Is there an Outdoor-Learning Area?	✓	
"Enclosed outdoor learning area/ courtyard with seating, gardening beds for students. Possible rain cistern for irrigation. Accessible from building or from locked external gate."		
Should there be a Question on Environmental Justice Populations / Vulnerable Populations?		✕
"NH GIS indicates the site is within a "Medium" Social Vulnerability Index Area."		
Is the Building Expandable on the Current Site?		✕
"Building is pretty tightly surrounded by adjacent school, residential area, and wooded area with wetlands and grading challenges."		
Is the Site Expandable?		✕
"Wetlands, topography, and adjacent elementary school will limit expansion feasibility on this site."		

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

Site Evaluation

Community Analysis

	YES	NO	
Historical Commission Status: Inventory of Archaeological Assets (Site Review)		✕	
"The site is not listed on the National Register of Historic Places (per the National Park Service website)ÿor the New Hampshire State Register of Historic Places (per the New Hampshire Division of Historical Resources website). The site is also not within the Manchester Historic District or listed as a locally-designated historic site, per Manchester GIS."			
Are there School Buses?		✕	
"9 MTA and 14 SPED buses, per bus counts provided by district."			
Bikeable?		✕	
"No dedicated bike lanes or bike racks observed."			
Walkable?	✓		
"Sidewalks along Jack Lovering Dr, Aurore Ave, and S Mammoth Rd."			

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

Site Evaluation

Traffic Analysis

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Parking **Bus Loop**		●			
"Parking spaces very faded. No designated crosswalk across loop from pick-up/ drop-off and parking to the school."					
Parking **NE Parking Lot**		●			
"Unsigned and unstriped parking likely used by school staff. Could stripe to increase capacity if desired."					
Parking **SW Parking Lot**		●			
"Striping very faded. Some vehicles on grass."					
Pedestrian Connections **Jack Lovering Dr at Brady Circle**	●				
"Brady Circle gated access road is not accessible to vehicles but has small gravel path on side that could be used by pedestrians to access school. Should consider creating paved pedestrian path."					
Pedestrian Connections **Path to SW sports field**	●				
"Markings to stripe out space in front of path are very faded."					
Standalone Crosswalks **Crosswalk from SW Parking Lot**	●				
"Crosswalk ends at corner of curb on parking lot side and on side of ramp on school side. Ramp from sidewalk does not have a detectable warning panel and should be evaluated for ADA compliancy."					
Standalone Crosswalks **East crosswalk from north parking lot**		●			
"Crosswalk striped but no signage. Ramp from sidewalk appears to be ADA-compliant with metal warning panel. Connects to accessible parking in SE corner of parking lot."					
Standalone Crosswalks **West crosswalk from north parking lot**	●				
"Crosswalk striped but no signage. Ramp from sidewalk does not have a detectable warning panel and should be evaluated for ADA compliancy."					

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

Site Evaluation

Traffic Analysis

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Unsignalized Intersections **Jack Lovering Dr at Jack Lovering Dr**		●			

"No detectable warning panels provided at the crosswalk on the east side. Pedestrian crossing should be evaluated for ADA compliancy."

SCHOOL NAME
McLaughlin Middle School

SITE VISIT
August 2023

Educational Facility Effectiveness: Learning Environments (EFE: LE)

Grade Levels

Building Originally Designed as:	6th Grade–8th Grade
	"School was originally designed as a Junior High School."
Which Educational Program are you Assessing?	6th Grade–8th Grade
The Grade Configuration this School is Best Suited to:	6th Grade–8th Grade
	"Building was built as a middle school, and is well suited for teaming. Currently each team has its own wing, team area, and support areas."

Educational Building Analysis

	GOOD	FAIR	POOR	DEFICIENT	FAILING
Acoustical	●				
Adjacencies of Learning Environments	●				
	"Fidelity to teams. Special Ed distribution throughout building"				
Environment **(Inviting / Stimulating / Comfortable)**		●			
	"Some areas are spacious with good daylighting. Could benefit from more student display. Classrooms have direct sightlines into teaming areas."				
Finishes	●				
	"VCT flooring, ACT ceiling, hand-painted block walls are in good condition."				

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

EFE: LE Evaluation

Educational Building Analysis

	GOOD	FAIR	POOR	DEFICIENT	FAILING
Furniture		●			
	"Tables are in good condition, but chairs are not ergonomically suited for sitting for long periods of time."				
Lighting Quality	●				
	"Most areas have newer dimmable LED fixtures."				
Natural Daylighting	●				
	"Skylights on stage. Windows in each observed classroom but some only had two smaller windows."				
Outdoor Classrooms		●			
	"Casual outdoor environment. No teaching surface. Not large enough for full class."				
Technology: Power	●				
Technology: Wireless		●			
	"Sometimes have issues."				
Ventilation		●			
	"Second floor can get warm on hot days."				

This Site Includes:

	YES	NO
Accessible	✓	
Play Fields	✓	
	"Baseball field and soccer field."	
Playgrounds / Areas		✕

SCHOOL NAME

McLaughlin Middle School

SITE VISIT

August 2023

REPORT TYPE

EFE: LE Evaluation

Building Assessment	YES	NO	
Can the Building Change Typology Easily?		✕	
Can the Building be Transformed Educationally to Serve 21st Century Needs?	✓		
Can the Building Serve as Swing Space?	✓		
Is the Building between 85%—115% Utilization Rate?		✕	

Educational Facility Effectiveness: Spaces (EFE)

Space Assessment	QUANTITY	ACTUAL AREA (SF)	MORE INFO
Administration and Guidance (Quantity Varies)	Varies	3240	
Art Classroom (Min Area 900 sf or 36 sf / Student)	2	980, 1260	
	"Cabinets, sinks."		
Cafeteria (Min Area 12-15 sf / Student for Max Number of Diners per Lunch Period)	1	6212	LUNCH PERIODS: 3
Classroom: General Education (Min Area 900 sf or 36 sf / Student)	25	830, 840, 860	
FACS	1	1215	
Faculty Lounge	1	550	
Gymnasium (Min Area 6000 sf)	1	7044	STAGE: No
Media Center (Min Area 1800 sf or 4 sf / Student x Design Capacity)	1	2860	
Music Classroom (Area 1200 sf)	4	855, 975	
	"Band is on Stage."		
Science Classroom / Lab (Area 1200 sf or 60 sf / Student)	8	1100, 1110, 1120	
	"No gas hookups for Bunsen burners."		
Small Group	12	185, 300	
	"Team Areas and Team Rooms."		

SCHOOL NAME
McLaughlin Middle School

SITE VISIT
August 2023

REPORT TYPE
EFE: Space Evaluation

Space Assessment

	QUANTITY	ACTUAL AREA (SF)	MORE INFO
Special Education: Resource of Small Group (Area 500 sf)	8	185, 275, 500	
Special Education: Self Contained (Area 950 sf)	7	450, 530, 860, 980	TOILET ROOM: No
Stage (Area 1000 sf)	1	2326	
	"Stage/Band Room. Acoustics - sagging tectum on ceilings. Inadequate acoustics against the operable stage partition. Loud air handling unit noise at stage."		
Teacher Planning	0	0	
	"None observed."		
Technology Lab	3	830, 970, 1090,	
	"Computer Lab, Tech Ed. CR, Celtics I.T. lab"		
Woodshop	1	1075	

Adequacy of Rooms

	GOOD	FAIR	POOR	DEFICIENT	FAILING
Administration and Guidance	●				
Art Classroom	●				
Cafeteria	●				
Classroom: General Education	●				
FACS		●			
Faculty Lounge		●			
Gymnasium	●				
Media Center		●			
Medical	●				
Music Classroom		●			
Science		●			
	"Lab tables do not have casters - are not easily mobile."				

SCHOOL NAME
McLaughlin Middle School

SITE VISIT
August 2023

REPORT TYPE
EFE: Space Evaluation

Adequacy of Rooms

	GOOD	FAIR	POOR	DEFICIENT	FAILING
Small Group		●			
Special Education: Resource of Small Group		●			
Special Education: Self Contained		●			
Stage	●				
Teacher Planning					●
	"None observed."				
Technology Lab		●			
Woodshop		●			

Special Education Assessment

	YES	NO
18+		✕
Autism Spectrum	✓	
	"Self-Contained. 6-8 sub separate class. Have Opportunity Room adjacent."	
Cognitively Impaired		✕
Deaf and Hard of Hearing		✕
Emotional Disturbance		✕
English Learners	✓	
	"Pull-Out. School also has Newcomer program."	
Intellectual Disability	✓	
Life Skills	✓	
	"Self-Contained. Transitional Needs."	
Medically Fragile		✕
PT/OT/Speech	✓	
Reset Program		✕
Social Emotional		✕
Title 1		✕

Assessment Team Scoring Rubric

Educational and Facilities Assessment Approach

Assessment Criteria

Educational and Facilities Assessment (E+FA) Approach - Led by architects, engineers, and educational planners from SMMA and its consultants, and in partnership with each school principal, the team conducted both a facility assessment (to take inventory of the building layout and condition) and an educational assessment (to determine the adequacy of spaces for the educational programs offered) in each building. The following report outlines the team organization, methodology and approach taken to assess the Manchester Public School portfolio over the Spring and Summer of 2023.

Overall Assessment

Categories and criteria were strategically selected for assessment based on stated objectives, past experience, and nature of the Manchester School District portfolio of buildings. Ultimately, the E+FA team created a customized "Manchester School District methodology" which encompassed approximately 75 areas of criteria, organized either facility or site categories that examined physical components, as well as community components.

Facility Assessment Criteria

Facility Assessment: Building Evaluation

Facilities varying in terms of age, design, construction methods, and materials were reviewed to determine the condition of the district's portfolio. Building assessments were performed to determine existing components and/or systems' conditions at a specific point in time. The resulting information was then used to guide recommendations regarding maintenance, renovation, and/or replacement. The assessment team conducted visual inspections to observe signs of deterioration. No exploratory demolition, removing finishes, or viewing above ceilings was conducted. Areas that were hard to reach, off limits, or obscured by other systems that prohibited view of the some building components were not assessed. Systems and categories that were assessed included:

- Building Envelope
  - Roof Membrane
  - Facade
  - Windows
  - Thermal Performance
- Boilers
- Heating Distribution
- Interior Finishes
- Rooftop HVAC Equipment
- HVAC Controls
- Kitchen Equipment and Systems
- Natural Gas Distribution
- Generator
- Elevator
- Ventilation Distribution Systems
- Electrical Service
- Life Safety:
  - Means of Egress
  - Fire Alarm
  - Fire Protection: Sprinklers
- Security: Entry Sequence
- Lighting Quantity/ Control
- Toilets and Fixtures
- Plumbing Distribution Systems
- ADA/Accessibility
- Structural Systems (consisting of the following components):
  - Roof framing: This is the horizontal framing consisting of decking, slabs, joists, beams, trusses, etc.
  - Floor framing: This is the horizontal framing consisting of decking, slabs, joists, beams, trusses, etc.
  - Walls and columns: These are the vertical elements that hold up the floors and roof structures.
  - Foundations: Foundations occur at the base of the building and transfer the weight of the building onto the underlying soils.
  - Facades: These are the outside walls of the building including many non-structural elements (doors, windows, insulation, vapor barriers, etc.) that are part of the weather enclosure for the building.
- Lateral System: The lateral system in a building is the structural system that keeps the building from falling over when it is subjected to horizontal loads such as wind and earthquake forces.

Building Evaluation: Criteria Rating Hierarchy

The facility assessment building evaluations used a quintile classification hierarchy as defined below:

- None / Minor: System or element functioning reliably; routine maintenance and repair is needed.
- Moderate: System or element functioning minimally. Repair or replacement of some components is needed.
- Major: System or element is barely functioning. Repair or replacement of most components is needed.
- Replace: System or element is non-functioning, not functioning as designed, or is unreliable. Total replacement all components is needed.
- Not Present: System or element is non-existent, non-functioning, not functioning as designed, or is unreliable. Replacement is needed.

Building Evaluation: Physical Analysis Definitions

Roof
Roof Membrane: Apparent condition status noted for the roofing material and flashings. Note any obvious deterioration.

Existing Photovoltaics
Yes / No: Criteria noted. However, presence or absence of photovoltaic did not impact overall building condition.

Space for Solar
Yes / No: Comments, if applicable. Evaluation of whether roof space exists for solar (if there are relatively flat areas for possible future solar panels). Note that the roof structure was not evaluated for structural capacity of future PV panels. Criteria noted; however, presence or absence of photovoltaic panels did not impact overall building condition.

Façade
Description of apparent condition and materials of the exterior walls. Observations of any spalling or disintegration of brick or concrete masonry unit (CMU) walls and the condition of the mortar. Notes if there is any obvious movement or structural cracking, and if there is failure, the percentage of failure. With prefabricated panel system facades, notes the types and apparent conditions of attachment systems, panel material, and whether there is deterioration of the surface or caulking or movement in the panels.

Windows
Description of types and apparent conditions of exterior windows. Considers whether most windows appear to be in good working condition, if windows are transparent or translucent, and if they are single or double-paned.

Boilers (Mechanical)
Review of fuel sources and apparent conditions of boilers.

Boilers (Plumbing)
Observation of heating media (e.g. water or steam) of boilers.

Heating Distribution Systems
Evaluation of type and apparent conditions of piping, type, and apparent corrosion.

Building Envelope Thermal Performance
Review of the existing drawings of envelope elements (exterior walls, roof, foundations and slabs). Notes presence of vestibules at building entrances for temperature control.

Interior Finishes
Evaluation of types and conditions of interior wall, flooring, and ceiling finishes.

Rooftop HVAC Equipment
Review of type and apparent condition of roof top units (RTUs), exhaust fans, and air conditioning equipment, if present.

HVAC Controls
Review of types of thermostats and type and apparent condition of Building Management System (BMS) if present.

Kitchen Equipment and Systems (Architectural)
Evaluation of adequacy and apparent condition of kitchen equipment.

Kitchen Equipment and Systems (Electrical)
Observation of electrical kitchen appliances.

Kitchen Equipment and Systems (Plumbing)
Observation of gas kitchen appliances. Observation of apparent condition of kitchen plumbing fixtures, and whether there are separate sinks for handwashing and dishwashing, per health and plumbing codes. Notes if proper fire suppression system exists where required.

Natural Gas Distribution System
Review of apparent condition of the natural gas system, how it enters the building and is distributed, and of shut-off valves.

Generator
Review of type of generator, type of fuel source, and apparent condition if one is present.

Elevator
Evaluation of apparent condition of elevator if present.

Ventilation Distribution Systems
Review of locations and apparent condition of fans, ductwork, duct grilles, and other ventilation components.

Electrical Services
Apparent condition status noted. Review of available capacity, location and appearance of electrical service and meter age.

Life Safety

- Means of Egress:
  - (Architectural): Evaluation of apparent existence of proper smoke and/or fire doors, and if mechanical hold-open devices appear in good working condition. Notes if egress paths are direct and unencumbered, and whether there are enough exits relative to the facility population.
  - (Electrical): Review of illuminated exit signs and whether they are in the proper locations and appear to be in good condition.
- Fire Protection (Sprinklers): Observation of type and age of system and components. Review of maintenance records and certifications, if available.
- Fire Alarms: Observation of type, age, and appearance of systems. Review of available testing records.

Security

Entry Sequence: Observes if schools have only a camera/buzzer system at their main entrance or whether the main building entrance is adjacent or near the main office. (Adjacency/proximity of main office to main entrance allows for direct observation of the entire person, as well as control of their movements)

Lighting Quality/Control

Observed (not measured) light levels at the working surface, type of light fixtures and whether they provide an even dispersion and control of light for general academic tasks as well as for use of technology. Apparent condition, locations, and lighting uniformity are noted.

Toilets and Fixtures

Review of locations and apparent conditions of fixtures. Notes the maintenance and cleanliness of fixtures and flow of fixtures.

Plumbing Distribution Systems

Review of piping type, apparent corrosion, and equipment, including presence or absence of water heater & back-flow preventer.

ADA / Accessibility

- (Architecture): Observes whether the facility is compliant with the Americans with Disabilities Act (ADA) of 1990 standards. Evaluates adequacy and conditions of ramps, lifts, and elevators and whether every occupiable space in the facility can be accessed by anyone with a disability. Other considerations include compliancy of building elements such as clearances and door hardware.
- (Plumbing): Evaluation of whether toilet facilities and plumbing fixtures are ADA-compliant.

Structural Systems

The assessment team conducted visual inspections to observe signs of deterioration. No exploratory demolition, removing finishes, or viewing above ceilings was conducted. Areas that were hard to reach, off limits, or obscured by other systems that prohibited view of the structure were not assessed. Each of the criteria listed below is considered as it relates to the structural elements of the building.

A “Yes” comment in the assessment indicates that we observed signs of deterioration. A “Not Observed” comment in the assessment indicates that we either did not observe any distress in the structural element or were not able to observe the element due to the aforementioned limitations, and this does preclude an unobserved area from distress.

- Roof structural framing: As the framing is covered by roofing, observations are usually made from below. Water leaks are a common cause of damage to roof framing and part of the visual assessment is to look for signs of water damage. In wood framed structures, visual signs include mold or rotting wood. In structures with metal deck, visual signs include rusting of the deck and in concrete structures it can be cracks with rust stains or spalled concrete, indicated where a section of concrete has broken off (typically caused by water penetrating concrete through small cracks causing the steel reinforcing to rust and expand putting outward pressure on the concrete and causing it to break off).
- Floor structural framing: Common signs of deterioration in floors can be cracks in floors finishes (such as terrazzo), cracks in the bottom of concrete slabs or beams, water damage like that in roofs and longitudinal cracks (or checks) in wood framing. Cracks in floor finishes while cosmetically objectionable is not necessarily an indication of a structural failure. There are several causes for cracks in wood framing members (joists or beams) which does not necessarily mean the member is structurally inadequate.
- Walls/columns: Walls are typically framed with masonry, concrete, or wood or light gage metal studs with varying finishes. Columns typically consist of steel, concrete, or wood posts and can also be masonry piers. Common signs of deterioration in concrete and masonry walls are cracks in the walls. Cracks typically run vertically (bottom to top), although in masonry walls the cracks often follow the mortar joints. Cracks in walls can be caused by many factors: shrinkage in the wall due to changes moisture or temperature, movement of the supporting structure, or stresses in the wall caused by other loads. Concrete columns can have spalled concrete, wood posts can have longitudinal cracks (similar to floor members), and masonry piers can have cracks similar to walls.
- Foundations: Notes the type of foundation. Some types include shallow spread footings (concrete pads) and deep foundations such as caissons and piles that extend deep into the ground. Foundations generally include concrete components and are located below ground – making the system difficult to observe without performing some excavation. Some common signs of deterioration are cracks in foundation walls and areas where there has been vertical movement, indicating some settlement of the structure over time, which can be common. The causes of the cracks are like those described for walls.
- Facades: The structural components of the façade are typically the wall structure (see “Walls” above) but can also include the structural framing for overhangs or other horizontal elements that are part of the walls. Like in roof framing, moisture is a common cause for distress in facades. Common signs of distress are spalled concrete, cracks in concrete or masonry walls, and rusting steel members such as angle lintels over window and door openings in masonry walls. Note that some of these signs of deterioration do not necessarily indicate a structural deficiency and may only require maintenance.
- Identifiable Lateral System: Notes the presence and type of lateral load-resisting system, such as steel braced frames or shear walls consisting of concrete or masonry walls. Often, steel braced frames are imbedded within walls, making them difficult to identify. With masonry walls, it can be difficult to determine if a wall is a shear wall or just a partition wall. It is not possible to determine the structural adequacy of shear walls or braced frames without an in-depth investigation and it should be noted that many masonry walls in older buildings have little or no reinforcing. Common signs of distress in concrete and masonry shear walls are like those described for walls above.

Community Assessment: Building Evaluation

The Community – Building assessment included several categories including historical value, emergency shelter status, and use of community and school within/without the buildings. Historical value reviewed the historic inventory and register status of the building. Because schools are often the largest structure in a neighborhood, the City has designated certain facilities as emergency shelters. Additionally, several schools are directly connected to community centers or utilize adjacent neighborhood facilities for athletics and enrichment. Whether the community utilized the building after hours or on weekends was also considered.

New Hampshire Division of Historical Resources (DHR) Status
Yes/No; Comment, if applicable. Criteria will inform opportunities and constraints for modifying the existing building to meet changing physical demands for a 21st century learning environment.

Inventory of Historic Assets
Yes/No; Comment, if applicable. Notes whether the building is listed on any inventory of historic assets. Criteria will inform opportunities and constraints for modifying the existing building to meet changing physical demands for a 21st century learning environment.

State Register of Historic Places
Yes/No; Comment, if applicable. Notes whether the building is listed on a state Register of Historic Places. Criteria will inform opportunities and constraints for modifying the existing building to meet changing physical demands for a 21st century learning environment.

Locally Designated Historic District
Yes/No; Comment, if applicable. Notes whether the building is within a local historic district. Criteria will inform opportunities and constraints for modifying the existing building to meet changing physical demands for a 21st century learning environment.

Emergency Shelter
Yes/No; Comment, if applicable. Criteria noted and considered as part of the overall community building score. A designation by the city does not certify compliance for all state and federal requirements for the designation.

Community-Use Spaces
Yes/No; Comment, if applicable. These were determined after speaking with school administration during site visits. Community spaces attached to schools were also considered. Criteria noted and considered as part of the overall community building score.

Building Suitability for School Use
Yes/No; Comment, if applicable. Considered any major life-safety concerns for suitability. Criteria will inform opportunities and constraints for modifying the existing building.

Overall Community Building Rating
This is a judgment on the part of the reviewer(s) that considers all aforementioned factors, as well as amenities located in proximity to school sites and access to public transportation.

Facility Assessment: Site Evaluation

The site assessment team performed evaluations at each school facility in the district's portfolio. These evaluations considered the quality, condition, and capacity of the various exterior spaces of the facility. These spaces included: landscaped, educational, recreational, vehicular and pedestrian areas. This field effort was complimented by a study and research of the sites from web-based resources. The resulting information was then used to guide recommendations regarding maintenance, renovation, and/or replacement.

The diverse scope of site elements for schools varies in their relative impact to education and school operations. Priorities include elements that have large impacts to education and/or incur substantial impact to improve or repair.

- ADA Accessibility
- Walkways/Curbs/Sidewalks
- Play Areas
- Drainage
- Parking Quality
- Drop-Off/Pick-Up Routes
- Walls & Slopes
- Site Lighting
- Fencing
- Neighborhood Streets
- Evaluation Criteria

Site Evaluation: Criteria Rating Hierarchy

The site evaluations were judged on a scale as defined below:

- None / Minor: Element is functioning reliably and requires a little repair and routine maintenance.
- Moderate: Element is functioning minimally and requires some repair by a specialist.
- Major: Element is barely functioning and requires substantial repair by a specialist.
- Replace: Element is not functioning correctly and requires total replacement.
- Not Present: Element does not exist or completely failed. This element should be replaced and/or provided. In some instances (parking, walls/slopes and fencing) this element is not required.

Site Evalutation: Physical Analysis Definitions

Parking & Vehicular Circulation
Quality of vehicular area paving and quantity of parking spaces considered. This element may not be required if "Not Present".

Ground Cover
Presence and condition of landscaping, lawn areas, and any other non-hardscape areas. Ground cover evaluated for aesthetic value, shading, and functionality for outdoor gathering

Fields
Presence and apparent condition of athletic or play fields on the property.

Neighborhood Streets
Connectivity to residential areas surrounding the site. Condition of adjacent/ off-site roadways, sidewalks, and accessible elements considered.

Drop-Off/Pick-Up Routes
Segregation of buses, private vehicles, parking, and neighborhood traffic considered. Both on-site and off-site routes considered. This element may not be required if “Not Present”.

On-Site Walkways/Curbs/Sidewalks
Quality of all pedestrian spaces considered.

ADA Accessibility
Availability, location, and condition of accessible routes considered. The accessible routes connect building entrances, handicap parking, public streets, and site facilities. Accessibility is considered “Not Present” if there is no accessible building entrance.

Site Lighting
Condition, location, and quantity of lighting considered.

Fencing
Condition of fencing and gates of various types considered. This element may not be required if “Not Present”.

Drainage
Surface ponding, water quality structures, and condition of visible infrastructure considered.

Play Structures
Evaluation of apparent condition of play structures and if they are appropriate for range of ages of students at a school, if present.

Walls and slopes
Condition of retaining walls and stabilized slopes considered. This element may not be required if “Not Present”.

Wetlands on site
Yes/no; proximity of wetlands or natural resources to the site, which – if present – may add restrictions or regulatory challenges to site renovations or expansion.

Play Areas
Presence, suitability, and physical condition of casual recreation and play for students. Play structures, surfacing, and courts considered. This element may not be required if “Not Present”.

Outdoor Classrooms
Evaluation of apparent condition of outdoor classrooms or learning areas if present.

Environmental Justice Populations
Review of designation of site and adjacent neighborhoods on the Social Vulnerability Index, per state GIS.

Feasibility of Building Expansion on the Current Site
Evaluation of whether building is capable of appropriately expanding on its current site. Expansion can be horizontal, vertical, or infill, depending on the building's configuration. Feasibility of expansion based on size of property, existing coverage, regulatory restrictions, and physical constraints such as topography and proximity to natural resources.

Feasibility of Site Expansion
Evaluation of whether site expansion is possible, based on adjacent properties, and physical constraints, such as roads, proximity to protected lands, and easements.

Community Assessment: Site Evaluation

The Community – Site assessment included the broad categories of transportation access and neighborhood elements. Transportation access considered the condition of the adjacent streets, the ability of students and adults to bicycle and walk to the school, and the accessibility of public transportation. Neighborhood elements considered the school's proximity to community, civic, educational, commercial, and athletic facilities.

New Hampshire Division of Historical Resources (DHR) Status
Inventory of Archeological Assets (Site Review)
Comment, if applicable. Criteria will inform opportunities and constraints for modifying the existing building. In some cases, data may not be available.

School Buses
Review of types and numbers of school buses and bus queuing.

Accessible to Transit
Building is located within 2 blocks (1000 feet) of at least 2 stops on bus lines of regular frequency (at least every 10 minutes, during rush hour and mid-afternoon). Criteria noted and considered as part of the overall community building score.

Bikeable
Facility is considered bikeable if within 2 miles of multiple residential neighborhoods, without riding on busy streets that lack dedicated bike areas. Criteria noted and considered as part of the overall community building score.

- Wide sidewalks and/or low-traffic streets
- Adjacent to or within a residential neighborhood, without crossing busy & wide (4+ lanes) streets
- Not located on a steep street
- Bike racks are present at the school and are safely accessed from site entry points

Walkable
Facility is considered walkable if within 1.4 miles of residential neighborhoods, with consistent sidewalks, and walking route does not require students to cross busy or dangerous streets (per district eligibility criteria).

- Consistent, accessible sidewalks with crosswalks
- Adjacent to or within a residential neighborhood, without crossing wide (4+ lanes) streets

Site suitability for school use?
Yes/No, Comment if applicable. Considers overall site conditions, overall community rating, and size of site.

Overall Building – Community Condition:
This is the professional judgment on the part of the reviewer(s), considering all aforementioned factors and with consideration of nearby neighborhood, community, educational, and athletic facilities. Criteria noted and considered as part of the overall community building score.

Educational Assessment Criteria

Educational Facility Effectiveness Evaluation

Educational Facility Effectiveness of Learning Environments (EFE-LE)

The quality of physical environments has direct impacts on educational outcomes. The EFE analysis considers both inherent building characteristics of physical appearance and condition, and introduced equipment (e.g., furniture and technology). These qualitative factors have a large impact on overall student performance, as they influence students' comfort and ability to concentrate on tasks; teacher and student health and wellness; as well as absenteeism and retention.

Building environments also affect the overall educational effectiveness rating. Fixed elements, such as walls and windows, are components that are not easily remedied and may require extensive or invasive renovation. Other elements, such as furniture or finishes, can be more easily updated, replaced, or supplemented.

Fixed Building Elements include:

- Ventilation
- Natural Daylighting
- Lighting Quality
- Acoustical
- Environment (Inviting/Stimulating/Comfortable)
- Power and Technology Infrastructure
- Access to water for student projects
- Access to toilet facilities

Repairing these fixed elements may require buildings to be unencumbered of students (i.e., vacant) for the duration of the work, depending on the upgrades required.

- Adaptable elements
- Technology: ubiquitous wireless access for teachers and students and classroom technology
- Furniture: light weight, ergonomic and supportive of collaboration
- Finishes
- Adjacencies of Learning Environments
- Access to outdoor learning (classrooms or other)

These considerations often consist of singular systems and can be repaired or replaced independent of other systems. They may change frequently with the evolving landscape of educational pedagogy and should support a building that can adapt flexibly at relatively low costs. These upgrades can be executed internally, by facilities personnel or with arranged contracts.

Educational Facility Effectiveness Evaluation: Criteria Rating Hierarchy

The EFE-LE uses the following classification system:

- Excellent: Elements meet needs for 21st century (Next Generation) teaching and learning
- Good: Elements contribute to teaching and learning
- Fair: Elements somewhat interfere with teaching and learning
- Poor: Elements detract from or interfere with teaching and learning
- Deficient: Non-existent or inoperable systems or elements

Educational Facility Effectiveness Evaluation: Analysis Definitions

Evaluation Criteria

Building Originally Designed As: Over time, a school building may have modified the range of grades served. Knowing their original use quickly provides some insight into space types and building appointments.

Best Grade Configuration for this School Building

A school building may be best suited for a different range of grades or use depending on the types, quantities, and sizes of spaces, as well as the existing site attributes, including:

- Heights of casework, markerboards and other elements the students use
- Configuration and heights of toilet room fixtures

Ventilation

Fresh air is a critical component for health, wellness, and overall student performance. An even distribution of ventilated air is also important. Different ventilation systems (unit ventilators, central air ventilation, no mechanical ventilation) provide varying levels of outdoor air percentages and filtration. Observe whether mechanical ventilation is provided and what the apparent quality of the ventilation system is. Qualitative measurements are not taken, however visual, olfactory, and thermal observations are made.

Natural Daylighting

Considered to be a better quality of light than artificial lighting. Evaluates the general quantity/quality of the natural light and note if most spaces have access to daylight.

Artificial Lighting Quality

Observed (not measured) light level at the working surface. Type of light fixture and whether it provides an even dispersion of light for general academic tasks, and whether the fixture is dimmable, to accommodate use of technology.

Acoustical
The proper balance between voice reinforcement and sound absorption impacts “speech intelligibility.” This includes both sound performance within the space, as well as sound coming from outside the space. Observe whether the space appears to have appropriate acoustical properties for teaching and learning.

Technology (Power):
There are enough electrical outlets to support a future technology-rich classroom/school and they are properly distributed throughout the space.

Technology (Wireless):
There are sufficient access points throughout the school to support a 1:1 technology environment and fiber optic wiring exists within the building The main distribution room (server room) is air-conditioned, to ensure system reliability.

Technology (Interactive):
Classrooms and other teaching spaces have working interactive technology, such as interactive marker boards and document cameras.

Furniture
Different educational-delivery models can be reinforced by furniture type and flexibility. Ideal furniture is light and mobile enough to be easily re-arranged in multiple configurations. Furniture is ergonomic, comfortable, in good condition and promotes student collaboration.

Finishes
Materials and conditions of the walls, floors and ceilings. Both physical and aesthetic conditions are considered.

Environment (Inviting/Stimulating/Comfortable)
Evaluates whether building is aesthetically pleasing and if it is a place where students and teachers feel comfortable and want to spend time in each day.

Adjacencies of Learning Environments
Classrooms and other learning environments have a relationship to each other which promotes collaboration, communication, and other aspects of 21st century teaching and learning. Spaces promote interdisciplinary learning.

Outdoor Classrooms
Students have access to outdoor classrooms or other outdoor learning opportunities to learn in different ways, sometimes involving nature and hands-on activities.

Site Components

Playgrounds/Play Areas
Description of play surface materials (hard or soft). Evaluates condition of on-site play structures and whether structures are age-appropriate to the school's student population.

Accessibility
Evaluates conditions of play areas, including the ground surface/material, and whether areas are accessible to children of various disabilities.

Play Fields
Describes conditions of play fields, if present, and whether fields natural grass or synthetic turf.

Flexibility in Building Typology
Evaluates whether the building can serve alternative grade levels or support a special needs-focused curriculum.

Educational Transformation to Support 21st Century Needs
Evaluates if the building's construction easily allows for renovations that may change room sizes, replace or upgrade mechanical and electrical systems, and accommodate alternative educational-delivery methods (e.g., project-based learning [PBL]). This can often be the largest difference between a modern steel-frame building and interior masonry-bearing wall construction.

Building as Swing Space
Assuming the building is otherwise unoccupied, the ability to use the building for educational purposes for the temporary relocation of a school population during a period of renovation or construction.

Utilization Rate
Description of the utilizations rate and if it is 85% or higher. For high schools, classroom utilization of 85% are considered at capacity. Rates higher than 85% show levels of overcapacity and overcrowding. Middle schools generally work to a utilization of 90% and elementary schools at near 100%.

Educational Facility Spaces Effectiveness Evaluation

The Educational Facility Effectiveness – Spaces (EFE-S) metric compares the sizes of educational spaces to the New Hampshire Code of Administrative Rules, Section Ed. 321 guidelines for 21st century teaching and learning in new capital projects. This quantitative analysis is important for establishing the level of adequacy of the existing spaces for educational delivery. It also indicates whether a facility is deficient/missing dedicated educational spaces normally found in buildings of its grade level and typology.

Primary considerations often affect core curriculum and include:

- Classrooms (Depending on typology, these may include Pre-K and Kindergarten)
- Teacher Planning
- Small Group
- Science
- Art
- Music
- Vocations and Technology
- Media Center
- Cafeteria

Secondary considerations may allow for district flexibility in programming and community resources outside the traditional building environment, and include:

- Gymnasium (This program space is sometimes served by local community spaces)
- Gymnasium Options
- Auditorium
- Stage
- Medical
- Administration & Guidance
- Air Conditioned Technology Network Room
- Other considerations
- Special Education: Self-Contained
- Special Education: Resource or Small Group

Note: If a school has a special education program, its quantity of spaces will vary. Also, some substantially separate programs do not require full-size classrooms to be effective. For this reason, special education was considered differently than typical classroom spaces.

Educational Facility Spaces Effectiveness Evaluation: Criteria Rating Hierarchy

The educational facility effectiveness assessment for spaces used a quintile classification hierarchy as defined below:

- Excellent: Exceeds New Hampshire Code of Administrative Rules, Section Ed. 321 guidelines (+10% or greater)
- Good: School facilities are appropriate to house current enrollment and educational program. NSF meets New Hampshire Code of Administrative Rules, Section Ed. 321 guidelines (-10% to +10%)
- Fair: School facilities appear to be adequately sized for current enrollment and educational program. NSF somewhat less than New Hampshire Code of Administrative Rules, Section Ed. 321 (-10% to -20%)
- Poor: School facilities may not be adequately sized for current enrollment and educational program. Net square footage (NSF) at least 20% less than New Hampshire Code of Administrative Rules, Section Ed. 321 guidelines
- Deficient: Dedicated space does not exist.

Educational Facility Spaces Effectiveness Evaluation: Analysis Definitions

Narratives

The team considered the long-term goals relative to each building's capability of supporting Manchester School District's educational vision for 21st century (next generation) learning and teaching.

Engaged Learning

Engaging with the curriculum, applying it to an authentic context. Making connections between content areas and values/curiosity and interest. Finding connections to the community and making a difference. Public and tangible products. There is selective and intentional engagement, and agency in how one keeps focused and takes breaks.

- The following were criteria used for evaluating the levels of Engaged Learning at each school:
- The building (is/is not) comfortable to learn in.
- The building (has/lacks) appropriate temperature control and ventilation.
- The building (has/lacks) a space that can be used as a flexible learning commons for collaborative learning and presentations.
- The building (makes use/does not make use) of public space for teaching and learning.
- The building (provides/lacks) display space for student work to reinforce student accomplishments.
- The building (provides/lacks) space for teacher collaboration and planning.

Differentiated Learning

Acknowledging different learning styles. Encouraging how to understand one's self (self-knowledge). Flexibility that occurs within instruction, which also promotes flexibility in how students demonstrate learning. The following were criteria used for evaluating the levels of Differentiated Learning at each school:

- Classrooms (are/are not) large enough to support Universal Design for Learning (UDL), including the ability to create learning zones.
- The building (has/lacks) breakout spaces for differentiated/personalized learning and special education.
- The furniture in the building (can be/has difficulty being) flexibly arranged.

Cognitively Demanding Tasks/Programs

- The classroom environment (is/is not) sufficiently flexible to allow for different teaching and learning styles.
- Building (supports/lacks) learning environments that support music.
- Building (supports/lacks) learning environments that support art.
- Building (supports/lacks) learning environments that support physical activity/education.
- The building environment (supports/does not support) STEM adequately.
- The building (provides/lacks) space to experiment, create and collaborate.
- The building (has/lacks) performance/presentation space.
- Based on location and proximity to community resources and public transportation, teachers and students (can/have difficulty) access(ing) the City as a learning tool.

Overall EFE Rating

NH Code of Administrative Rules, Section Ed. 321 areas are based on current enrollment within school. Actual areas were determined by measuring CADD plans provided by Manchester School District. SMMA did not field-measure the buildings but verified general conformity with existing conditions by measuring spot values to determine the rough accuracy of CADD drawings. The design team reviewed the 2018 CMK Long-Range Facilities Plan, which informed some of the educational effectiveness ratings.

The following outlines the rating system used for evaluating the Overall Educational Facility Effectiveness:

- Excellent: Elements meet needs for current AND future teaching and learning.
- Good: Elements contribute to teaching and learning.
- Fair: Elements somewhat interfere with teaching and learning.
- Poor: Elements detract from or interfere with teaching and learning.
- Deficient: Non-existent or inoperable systems or elements.