



**MANCHESTER**  
SCHOOL DISTRICT

# **Green Acres Elementary School**

Educational and Facilities  
Master Plan

**smma**



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## 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

**Green Acres Elementary School**

SITE VISIT

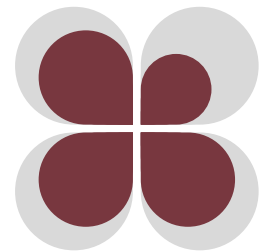
**August 2023**

# At-a-Glance



FA: Building

FA: Site



EFE: Learning

EFE: Spaces



Excellent

Deficient



**Address**

100 Jack Loving Drive, Manchester, NH 03109



**Gross Square Footage (GSF)**

53,734 sf



**Grades**

Pre-K–5th Grade



**Site Acreage**

41.3



**Hours of Operation**

8:25am–2:50pm



**Date of Construction**

1963



**2022–2023 Enrollment**

432



**Date of Addition Construction**

1971

SCHOOL NAME

Green Acres Elementary School

SITE VISIT

August 2023

# Site Plans



SCHOOL NAME

**Green Acres Elementary School**

SITE VISIT

**August 2023**












# Facility Evaluation Criteria

Physical Analysis	● NONE / MINOR	● MODERATE	● MAJOR	● REPLACE	○ N/A
<b>Roof Membrane (Architectural)</b>			●		
	"Roof membrane at the original building (1963) was replaced in 2003, but was not replaced at the 1970 addition. All roofs are beyond their useful lifespan and typical warranty period, so replacement is recommended. There appears to be design documents prepared for a project that would include replacement of all roofs. It is unclear what the status is of that project."				
<b>Existing Photovoltaics</b>					○
	"N/A"				
<b>Space for Solar on Roof</b>					○
	"Space on roof is available, exact locations and SF size can be evaluated."				
<b>Façade</b>		●			
	"The brick (original 1963) and precast veneer (1971) appear to be in good shape. Brick rowlock sills are in need of repointing. All window and door perimeters should be resealed."				
<b>Windows</b>				●	
	"All windows are original and are past their useful life expectancy."				
<b>Boilers (Mechanical)</b>	●				
	"At the time of our visit, the boilers had been removed and were in the process of being replaced. New boilers will be installed before this year's heating system."				
<b>Boilers (Plumbing)</b>			●		
	"The HVAC boilers have been removed and are undergoing replacement. Refer to HVAC report. The domestic hot water is fed from a 68-gallon oil fired water heater that is not operational. (Valves shut off, flue missing). As part of the boiler replacement, a heat exchanger (indirect through the boiler) and 80 gallon storage tank are anticipated."				

**Physical Analysis**




 NONE / MINOR    
  MODERATE    
  MAJOR    
  REPLACE    
  N/A

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>Heating Distribution Systems</b>					
<p>"The heating will be distributed through a primary-secondary pumping arrangement; this has been removed and will be replaced before this year's heating season. The piping and insulation visually seemed to be operating and in good condition. The terminal heating equipment has a dated appearance but appears to be in good working condition. Classrooms have fin tube radiation and entrances have cabinet unit heaters."</p>					
<b>Building Envelope Thermal Performance</b>					
<p>"The original 1963 and 1971 buildings most likely have little to no insulation in the wall cavity. Windows and doors are original and in need of replacement. Several inches of insulation was added to the roof of the original 1963 building when it was replaced in 2003. This does not meet current energy codes."</p>					
<b>Interior Finishes</b>					
<p>"VCT flooring was upgraded in the 1963 building in 2003 and is in good condition. Most ACP ceiling panels were removed at the time of assessment due to ongoing HVAC and sprinkler piping installation. Classroom walls in the 1970 addition are demountable partitions that do not extend up to roof deck. The library was renovated in 2007."</p>					
<b>Rooftop HVAC Equipment</b>					
<p>"The energy recovery units are all new as of May 2023 and are in excellent condition. These units provide ventilation that is heated or cooled per seasonal requirements. Some of the exhaust fans and split systems appear to be operational but are nearing the end of their useful life."</p>					
<b>HVAC Controls</b>					
<p>"The building uses JCI Metasys controls (district standard). The thermostats throughout the building have been replaced in the last year."</p>					
<b>Technology Infrastructure</b>					
<p>"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."</p>					
<b>Technology Systems</b>					
<p>"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."</p>					

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>Security Systems</b>		●			
	"The City is working with a Security Systems Vendor to deploy 500 CCTV cameras throughout the District's Schools. Adequate bandwidth is a concern for transmitting video. Notification and Lock Down systems are not present. Indoor cellular signal booster system is desired."				
<b>Kitchen Equipment and Systems (Electrical)</b>	●				
	"Kitchen electrical equipment (panels and receptacles) is found to be in good condition. The observed receptacles are GFCI type in compliance with Code."				
<b>Kitchen Equipment and Systems (Plumbing)</b>		●			
	"The building has a small kitchen. See photos for dishwasher, prerinse, two pot sink with prerinse, floor access panel (grease interceptor), hand sink, and piping below the sinks. A booster water heater is provided to boost the hot water temperature at the dishwasher. Fixtures and equipment appears to be in fair condition. Piping below sinks are a mix between painted piping, PVC piping, and exposed copper. Gas fired equipment was not present. Although PVC is an acceptable material for waste piping in New Hampshire, it is not typically installed in commercial kitchens as there are durability and cleanliness concerns. Recommendations - chrome plate exposed copper lines and replace PVC piping. A major renovation should include replacement of the original copper piping below each fixture."				
<b>Natural Gas Distribution System</b>		●			
	"Natural gas piping observation was limited to the exterior service piping and piping within the mechanical boiler room. The gas lines are currently capped at each existing take off, as the existing boilers have been removed and the replacement boilers have not yet been installed. The piping appears to be in good working order."				
<b>Current Fuel Source</b>	●				
	"The building is provided with a natural gas service consisting of a meter and regulator. Based on the meter/regulator arrangement, it is assumed that the system is intermediate pressure. Visual inspection of the gas piping was limited to piping that was exposed. The exterior piping does show signs of rusting, however the system appears to be in good working order."				
<b>Generator</b>					○
	"N/A"				
<b>Elevator</b>					○
	"N/A"				





**Physical Analysis**

 NONE / MINOR
 MODERATE
 MAJOR
 REPLACE
 N/A

<b>Ventilation Distribution Systems</b>				
	<i>"The recent HVAC renovation project has replaced most of the ductwork and it is in great shape. The classrooms use ceiling supply/of conditioned air with low wall returns in many spaces. The gym also has a high supply, low return system. A few rooms have wall-mounted mini-splits that provide cooling. There are wall louvers all around the outside of the building; we understand that they have been blanked off and are no longer in use."</i>			
<b>Electrical Services</b>				
	<i>"Exterior pad-mounted utility transformer by PSNH is located adjacent to the Main Electric room. The transformer appears in good condition. The utility CT cabinet and meter are located on the exterior wall. The utility transformer's secondary feeder is terminated in the Main Distribution panel MDP located in the Main Electric room 18D on 1st floor. It's rated 1,200 Amp 120/208v 3ph 4w. The panel MDP feeds another Distribution panel DP1 located in Electric room 8D. It's rated 600 Amp 120/208v 3ph 4w. Panels MDP and DP1 feed the secondary panels installed throughout the building, RTU's, and portable classrooms. Distribution panels MDP and DP-1 and downstream panels were installed around the year 2003 with associated power feeders. All panels appear in good operational condition, except for one panel BPA located in basement boiler room - it's recommended for replacement."</i>			
<b>Life Safety: Means of Egress (Architectural)</b>				
	<i>"Locations, size and quantity of egress components appears to be adequate."</i>			
<b>Life Safety: Means of Egress (Electrical)</b>				
	<i>"Self-contained internally lighted LED exit signs and battery units are provided along egress pathways. Emergency lighting throughout is observed in adequate operational condition."</i>			
<b>Life Safety: Fire Protection (sprinklers)</b>				
	<i>"The building is currently being retrofitted with an automatic sprinkler system. Ceilings were down in many locations to allow the installation of the mains/branches/sprinklers. The fire service and associated backflow preventer is not yet installed."</i>			

**Physical Analysis**

 NONE / MINOR    
  MODERATE    
  MAJOR    
  REPLACE    
  N/A

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<p><b>Life Safety: Fire Alarms</b></p>					
<p><i>"The Fire Alarm (FA) system was designed and installed in 2004, and shows some later upgrades. The FA system is zoned, manufactured by Notifier, consisting of smoke and heat detectors, double action pull stations, speaker/strobes and strobe only units. The school building originally didn't have a fire protection system (sprinklers) and therefore the FA system was designed with a "full coverage smoke detection" concept. The fire protection system installation is on-going. All classrooms and similar educational spaces, corridors, teacher areas, etc. are equipped with signaling devices. The Fire Alarm Control Panel (FACP) and radio master box are in the main entrance lobby. The remote annunciator and knock box are outside of the main entrance door. The FA equipment was observed in good operational condition."</i></p>					
<p><b>Security: Entry Sequence</b></p>					
<p><i>"The main entrance has controlled card access and an intercom system. There is no visual access to the exterior from the main office. There is no secured vestibule beyond the exterior set of doors."</i></p>					
<p><b>Lighting Quantity / Control</b></p>					
<p><i>"The interior lighting system was observed in on-going progress of replacing the existing lighting fixtures and control switches with the new 2'x4' recessed LED "basket reflector" type lights equipped with integral occupancy sensors and associated lighting control stations."</i></p>					
<p><b>Toilets and Fixtures</b></p>					
<p><i>"The fixtures appear to be a mix of original (1963/1971) and ADA upgrades (2006). The original fixtures are dated and not in good shape, while the ADA fixtures appear to be in good working order. Drinking fountains have been replaced with bottle filling stations. The flow rates of the fixtures could not be confirmed, but it is assumed that the fixtures do not meet current low flow sustainability requirements. Replacement fixtures should be low flow type. Replacement of fixtures with low flow fixtures should be considered for any major renovations."</i></p>					

**Physical Analysis**

● NONE / MINOR    
 ● MODERATE    
 ● MAJOR    
 ● REPLACE    
 ○ N/A

<b>Plumbing Distribution Systems</b>	<span style="color: yellow;">●</span>			
<p><i>"The domestic cold water is provided through a 3" service that reduces down to two 2-inch lines (a bypass, and a 3-inch meter). The discharge flows through a pressure regulator valve and reduced pressure backflow preventer before tying back together and feeding the cold water system for the building. The age of the domestic water piping throughout the building varies. Original piping is close to 52-60 years old and renovated piping from the ADA revisions is approximately 17 years old. Piping greater than 40 years old (lifespan 40-50 years) should be evaluated (sample destructive testing, water quality testing) to determine the condition and help estimate the longevity left in the piping. Original valves and pipe solder pre-date current lead free regulations and requirements. Observation of sanitary and vent, storm water piping was limited to exposed areas. Above ceiling observations were not performed. The expected lifespan of cast iron piping is 50 years. Future renovations should consider scoping/testing to confirm the expectancy left in the piping. Vents through roof and roof drains appear adequate with no immediate concerns."</i></p>				
<b>Accessibility (Architectural)</b>	<span style="color: yellow;">●</span>			
<p><i>"Only the main entrance is accessible. Not all toilet rooms have been upgraded to meet current accessibility standards. Classrooms sinks are original and not accessible."</i></p>				
<b>Accessibility (Plumbing)</b>	<span style="color: yellow;">●</span>			
<p><i>"Not all toilet rooms have been upgraded to meet current accessibility standards. Classrooms sinks are original and not accessible."</i></p>				

**Structural Systems:  
Signs of Deterioration Observed?**

	YES	NO		
<b>Roof</b>		✓		
<p><i>"Long span joist at gym on cmu bearing walls. Concrete framed slab and beams over mechanical room. There framed floors are steel bar joist with form deck."</i></p>				
<b>Floor</b>		✓		
<p><i>"Concrete slab on grade ."</i></p>				
<b>Walls / Columns</b>		✓		
<p><i>"All walls cmu block some bearing some not."</i></p>				
<b>Foundations</b>		✓		
<p><i>"Foundation walls appear to be sound condition."</i></p>				

SCHOOL NAME

Green Acres Elementary School

SITE VISIT

August 2023

REPORT TYPE

Facility Evaluation

**Structural Systems:  
Signs of Deterioration Observed?**

	YES	NO	
<b>Façade</b>		✓	
<i>"Exterior masonry in very good condition."</i>			
<b>Is Lateral System Identifiable?</b>	✓		
<i>"Lateral system is comprised of CMU bearing/shear walls."</i>			

**Community**

	YES	NO	
<b>Emergency Shelter</b>	✓		
<i>"Staff and Family Shelter only."</i>			
<b>Are there Separate Community / Non-School Spaces on Site?</b>	✓		
<i>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.</i>			



# Site Evaluation Criteria

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>Parking Capacity</b>					
	"Approx. 68 spaces in main lot, 14 spaces in smaller staff lot, 18 spaces in baseball field lot. Dumpsters and storage pods blocking some parking spaces. 53 staff, per school district website."				
<b>Parking Quality</b>					
	"Primary parking lot at main entrance, smaller staff lot to east, small auxiliary lot by baseball field. Parking lot pavement and curbing in good condition. Majority of lots need restriping. Multiple lots currently housing dumpsters and shipping container storage."				
<b>Ground Cover</b>					
	"Primarily lawn with some trees around building. More landscaping at front of building. Wooded area northeast of site."				
<b>Fields</b>					
	"Baseball and soccer multi-purpose fields adjacent to school. Limited accessibility from school to baseball field, due to slopes and fencing. Field accessible from separate parking lot to the west."				
<b>Neighborhood Streets</b>					
	"Pedestrian/bike connection north to neighborhood (Greenwood Ct), or south (to Brady Cir) via fire lane by McLaughlin. No sidewalks on adjacent residential streets."				
<b>Drop-off / Pick-up Routes</b>					
	"Two one-way drop off loops off of access drive at main entrance, for cars and buses respectively. Two curb cuts and crosswalks across bus drop off loop from main parking lot to front entrance."				
<b>Walkways / Curbs / Sidewalks</b>					
	"Bituminous walkways with vertical granite curbs."				

SCHOOL NAME

**Green Acres Elementary School**

SITE VISIT

**August 2023**

REPORT TYPE

**Site Evaluation**

<b>Physical Analysis</b>	● NONE / MINOR	● MODERATE	● MAJOR	● REPLACE	○ N/A
<b>ADA Accessibility</b>	●				
<i>"Curb ramps and accessible entrances on most sides of the building. 3 ADA spaces in parking lot at front entrance."</i>					
<b>Site Lighting (Civil)</b>	●				
<i>"LED fixtures on metal poles with concrete bases in bituminous lots and along access drive. in good condition."</i>					
<b>Site Lighting (Electrical)</b>	●				
<i>"The exterior lighting consists of pole-mounted LED lights at parking lots and various types of the building-mounted lights. The building-mounted lights are a mix of the "older" under canopy recessed- and surface-mounted lights and the "newer" LED wall packs along the building perimeter walls. In general, all lights appear in fair-to-good operational condition, however, the "older" lights are suggested for replacement with energy-efficient LED models. The building-mounted perimeter wall lights and the parking lot lights are time-controlled via a dedicated control system. The under-canopy lights are switched manually."</i>					
<b>Fencing</b>	●				
<i>"Security fence along top of slope."</i>					
<b>Drainage</b>	●				
<i>"Catch basins in good condition, but seem very spaced out with long drainage runs. Some erosion/sediment buildup at catch basin for northern lot. Eastern lot slopes towards building with no drainage structures, but building maintenance team indicated ponding hasn't been a serious issue in the lot."</i>					
<b>Play Areas</b>	●				
<i>"Multiple play areas. play structure with wood chips and bituminous lot with play markings in eastern quadrant of site, second play structure and bituminous lot with basketball court in northern quadrant."</i>					
<b>Monuments and Memorials</b>	●				
<i>"None observed at this site."</i>					
<b>Walls / Slopes</b>	●				
<i>"Steep slopes down from elementary school separated from access drive by fence."</i>					

SCHOOL NAME

Green Acres Elementary School

SITE VISIT

August 2023

REPORT TYPE

Site Evaluation

### Physical Analysis

	YES	NO
<b>Are there any Wetlands on Site?</b>	✓	
<i>"Wetlands along eastern portion of site, closer to McLaughlin. Likely not a concern for Green Acres."</i>		
<b>Are there any Easements on Site?</b>	✓	
<i>"No easements shown on GIS. Green Acres shares property with McLaughlin, may include access easements between the two schools. Walking trail to Greenwood Ct crosses residential parcels, may have easement."</i>		
<b>Are Play Structures Age-Appropriate?</b>	✓	
<i>"No Comment"</i>		
<b>Is there an Outdoor-Learning Area?</b>	✓	
<i>"Two picnic tables with structure for shade and weather protection. Additional picnic tables outside of modular classrooms."</i>		
<b>Should there be a Question on Environmental Justice Populations / Vulnerable Populations?</b>		✗
<i>"NH GIS designates site as "Medium" Social Vulnerability Index, based on census analysis."</i>		
<b>Is the Building Expandable on the Current Site?</b>	✓	
<i>"opportunities for expansion/improvement in lot with modular classrooms."</i>		
<b>Is the Site Expandable?</b>	✓	
<i>"minor opportunities to expand in areas with gradual slopes (e.g. between school and baseball field)."</i>		

### Community Analysis

	YES	NO
<b>Historical Commission Status: Inventory of Archaeological Assets (Site Review)</b>		✗
<i>"The site is not listed on the National Register of Historic Places (per the National Park Service website) or 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."</i>		

SCHOOL NAME

**Green Acres Elementary School**

SITE VISIT















**August 2023**

REPORT TYPE

**Site Evaluation**

### Community Analysis

	YES	NO
<b>Are there School Buses?</b>	✓	
<i>"Designated bus drop off loop. 4 MTA buses and 4 SPED buses, per bus counts provided by the district."</i>		
<b>Bikeable?</b>		✗
<i>"Site connections to neighborhood streets, but no designated bike lanes."</i>		
<b>Walkable?</b>	✓	
<i>"Sidewalks, walking trail, and fire lane connections to surrounding neighborhoods."</i>		

<b>Traffic Analysis</b>	 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
<b>Bike Facilities</b> Aurore Ave					
<i>"Poor condition of roadway may discourage cycling."</i>					
<b>Bike Facilities</b> S Mammoth Rd					
<i>"No markings for bikes on the street. Consideration may be given to striping a bike lane as S Mammoth Rd has 30+ mph observed speeds in the study area."</i>					
<b>Parking</b> Baseball Field Parking					
<i>"Small lot by baseball field has no striping to indicate spaces. May be able to add capacity by striping spaces. Sign post missing sign in NE corner of lot at start of pedestrian path."</i>					
<b>Parking</b> Green Acres East Parking Lot					
<i>"Small parking lot with striped spaces that are very faded."</i>					
<b>Parking</b> Green Acres Parking Lot					
<i>"Parking lot has striped spaces that are very faded. One of the curb cuts near the accessible spaces ramps down to the bus loop but no crosswalk is striped."</i>					
<b>Pedestrian Connections</b> Path from parking to baseball field bench					
<i>"Boulder in middle of path obstructs access to bench at the end of the path."</i>					
<b>Roadway Characteristics</b> Aurore Ave					
<i>"Pavement in poor condition."</i>					
<b>Roadway Characteristics</b> Tougas Ave					
<i>"Pavement in poor condition."</i>					
<b>Sidewalks</b> Aurore Ave					
<i>"Sidewalk on north side. Poor condition except near S Mammoth Road. Particularly bad condition in addition to vegetation encroachment near gate at Jack Lovering intersection."</i>					

Traffic Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	○ N/A
<b>Sidewalks</b> Jack Lovering Dr	●				
<i>“Sidewalk in poor condition west of baseball field driveway, especially around sewer cap in middle of sidewalk near baseball field parking lot.”</i>					
<b>Sidewalks</b> S Mammoth Rd	●				
<i>“Sidewalk on east side of road. Sidewalk in poor condition.”</i>					
<b>Standalone Crosswalks</b> East crosswalk from Green Acres parking lot		●			
<i>“Crosswalk striped but no crosswalk signage or detectable warning panels provided at the crossing. Pedestrian crossing should be evaluated for ADA compliancy.”</i>					
<b>Standalone Crosswalks</b> North crosswalk from Green Acres parking lot			●		
<i>“Crosswalk striped but no crosswalk signage or detectable warning panels provided at the crossing. Pedestrian crossing should be evaluated for ADA compliancy.”</i>					
<b>Standalone Crosswalks</b>					
<i>“No comment”</i>					
<b>Unsignalized Intersections</b> Aurore Ave at Tougas Ave	●				
<i>“No crosswalks since there are no sidewalks on Tougas. No STOP sign or stop line on Tougas approach. Poor condition pavement.”</i>					
<b>Unsignalized Intersections</b> Jack Lovering Dr at Aurore Ave			●		
<i>“Crosswalk across north leg of intersection connecting to Aurore sidewalk. East ramp appears to be ADA-compliant with metal warning panel, while west ramp lacks a detectable warning panel. Pedestrian crossing should be evaluated for ADA compliancy. New pavement through intersection covers some of the crosswalk striping.”</i>					
<b>Unsignalized Intersections</b> Jack Lovering Dr at Baseball Field driveway			●		
<i>“Crosswalk striped but no crosswalk signage or detectable warning panels provided at the crossing. Pedestrian crossing should be evaluated for ADA compliancy. No stop line or STOP sign on driveway approach.”</i>					

SCHOOL NAME

**Green Acres Elementary School**

SITE VISIT

**August 2023**

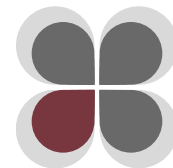
REPORT TYPE

**Site Evaluation**

### Traffic Analysis

● NONE / MINOR    
 ● MODERATE    
 ● MAJOR    
 ● REPLACE    
 ○ N/A

	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>Unsignalized Intersections</b> Jack Lovering Dr at Green Acres Bus Drop-off Loop			<span style="color: orange;">●</span>		
<p><i>“Crosswalks striped across bus loop and small Green Acres east parking lot, but no crosswalk signage or detectable warning panels provided at the crossing. Pedestrian crossing should be evaluated for ADA compliancy.”</i></p>					
<b>Unsignalized Intersections</b> S Mammoth Rd at Aurore Ave		<span style="color: yellow;">●</span>			
<p><i>“Crosswalk striped across Aurore Avenue with cracks in pavement. No crosswalk across S Mammoth Road since there is no sidewalk on the west side at this location. Crosswalk striped but no detectable warning panels provided at the crossing. Pedestrian crossing should be evaluated for ADA compliancy. Sidewalk in SE corner of intersection ends in grass along Aurore Avenue.”</i></p>					
<b>Unsignalized Intersections</b> S Mammoth Rd at Jack Lovering Dr		<span style="color: yellow;">●</span>			
<p><i>“Crosswalks striped across Jack Lovering Drive and S Mammoth Road, but no crosswalk signage or detectable warning panels provided at the crossing. Pedestrian crossings should be evaluated for ADA compliancy. In NE corner, Jack Lovering sidewalk does not connect to S Mammoth Drive sidewalk north of the intersection. In SW corner, small patch of sidewalk is in very poor condition and does not connect to anything. SW corner ramp also prone to puddling, which may indicate a drainage issue. No lane use signage or pavement markings for Jack Lovering Drive approach.”</i></p>					



# Educational Facility Effectiveness: Learning Environments (EFE: LE)

## Grade Levels

<b>Building Originally Designed as:</b>	1st Grade–5th Grade
<b>Which Educational Program are you Assessing?</b>	Pre-K–5th Grade
<b>The Grade Configuration this School is Best Suited to:</b>	1st Grade–4th Grade

## Educational Building Analysis

● GOOD     
 ● FAIR     
 ● POOR     
 ● DEFICIENT     
 ● FAILING

	GOOD	FAIR	POOR	DEFICIENT	FAILING
<b>Acoustical</b>		●			
<i>"Acoustical ceiling tiles were upgraded in Fall 2023. However, the existing demountable partitions, which do not go up to the underside of the ceiling deck and allows significant noise transfer, remain."</i>					
<b>Adjacencies of Learning Environments</b>		●			
<b>Environment</b> (Inviting / Stimulating / Comfortable)	●				
<b>Finishes</b>	●				
<i>"Recently replaced."</i>					
<b>Furniture</b>		●			
<b>Lighting Quality</b>	●				
<i>"Lighting fixtures were upgraded in Fall 2023."</i>					

SCHOOL NAME

Green Acres Elementary School

SITE VISIT

August 2023

REPORT TYPE

EFE: LE Evaluation

### Educational Building Analysis

● GOOD     
 ● FAIR     
 ● POOR     
 ● DEFICIENT     
 ● FAILING

Natural Daylighting		●			
Outdoor Classrooms		●			
Technology: Power			●		
<i>"Not enough outlets or placed in inconvenient locations."</i>					
Technology: Wireless		●			
Ventilation	●				
<i>"HVAC was upgraded in Fall 2023."</i>					

### This Site Includes:

YES      NO

Accessible	✓		
Play Fields		✗	
Playgrounds / Areas	✓		

### Building Assessment

YES      NO

Can the Building Change Typology Easily?		✗	
Can the Building be Transformed Educationally to Serve 21st Century Needs?	✓		
<i>"With significant renovation"</i>			
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
<b>Administration and Guidance</b> (Quantity Varies)	Varies	1370	
<b>Art Classroom</b> (Min Area 900 sf or 36 sf / Student)	0	0	
<i>"On a cart."</i>			
<b>Cafeteria</b> (Min Area 12-15 sf / Student for Max Number of Diners per Lunch Period)	1	5015	LUNCH PERIODS: 3
<i>"Shared with Gymnasium."</i>			
<b>Classroom: General Education</b> (Min Area 900 sf or 36 sf / Student)	17	885, 895, 900	
<b>Faculty Lounge</b>	1	375	
<b>Gymnasium</b> (Min Area 6000 sf)	1	(see Cafeteria)	STAGE: No
<i>"Shared with Cafeteria."</i>			
<b>Kindergarten</b> (Min Area 1000 sf or 50 sf / Student)	3	885, 1160	TOILET ROOM: Yes
<b>Media Center</b> (Min Area 1800 sf or 4 sf / Student x Design Capacity)	1	1925	
<b>Music Classroom</b> (Area 1200 sf)	0	0	
<i>"On a cart."</i>			

**Space Assessment**

	QUANTITY	ACTUAL AREA (SF)	MORE INFO
<b>Pre-K0/K1</b> (Min Area 1000 sf or 50 sf / Student)	3	800	
<b>Special Education: Resource of Small Group</b> (Area 500 sf)	2	695, 800	
<b>Special Education: Self Contained</b> (Area 950 sf)	1	800	TOILET ROOM: No
<b>Stage</b> (Area 1000 sf)	0	0	
<b>Teacher Planning</b>	0	0	
<i>"None observed."</i>			

**Adequacy of Rooms**

	● GOOD	● FAIR	● POOR	● DEFICIENT	● FAILING
<b>Administration and Guidance</b>			●		
<i>"Admin is not in contiguous space."</i>					
<b>Art Classroom</b>					●
<i>"On a cart."</i>					
<b>Cafeteria</b>		●			
<i>"Shared with Gymnasium."</i>					
<b>Classroom: General Education</b>		●			
<b>Faculty Lounge</b>			●		
<b>Gymnasium</b>			●		
<i>"Shared with Cafeteria. VCT floor is slippery for some sports."</i>					
<b>Kindergarten (K2)</b>		●			
<b>Media Center</b>		●			
<b>Medical</b>			●		
<b>Music Classroom</b>					●
<i>"On a cart."</i>					

SCHOOL NAME

Green Acres Elementary School

SITE VISIT

August 2023

REPORT TYPE

EFE: Space Evaluation

### Adequacy of Rooms

● GOOD     
 ● FAIR     
 ● POOR     
 ● DEFICIENT     
 ● FAILING

	GOOD	FAIR	POOR	DEFICIENT	FAILING
Pre-K0/K1		●			
Special Education: Resource of Small Group			●		
Special Education: Self Contained		●			
Teacher Planning					●
<i>"None observed."</i>					

### Special Education Assessment

YES      NO

	YES	NO
18+		X
Autism Spectrum		X
Cognitively Impaired		X
Deaf and Hard of Hearing	✓	
<i>"Self-Contained Pre-K"</i>		
Emotional Disturbance		X
English Learners	✓	
Intellectual Disability		X
Life Skills		X
Medically Fragile		X
PT/OT/Speech	✓	
Reset Program		X
Social Emotional		X
Title 1		X

# 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 Evaluation: 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 utilization 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.

