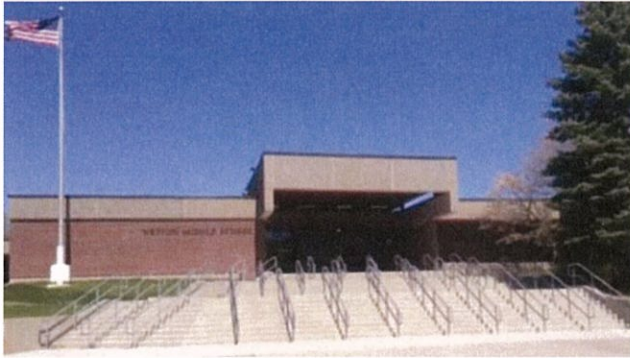


## Weston Middle School



*Figure 1: View of Middle School main entrance*

Weston Middle School was originally constructed in 1960. This one-story building has received various additions over the course of its lifetime. The most recent addition was built around 1995. Today, it is approximately 155,622 net square feet including the lower level with the pool and locker rooms. The school portion of the building totals at 145,977 net square feet. Weston Middle School is home to 6<sup>th</sup> through 8<sup>th</sup> grade serving 586 currently enrolled students and approximately 80 staff members.

## Site

Weston Intermediate School is located at 135 School Road on the 117-acre school campus site. It is located to the north of School road near the edge of the campus. It is bordered by numerous baseball/softball fields. The school main entrance is located at the west elevated off the road with a large staircase that is both tall and wide. There is no accessible route to the main entrance. Parking is also somewhat remote from the front door. In the front a linear lot allows for one-way flow through the parking lot. Across the street there is an additional small lot. To the north and rear of the building there are additional parking lots for staff. The rear also has a loading area at the back of the kitchen



*Figure 2: Google Site Image*

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along with an area for storing school/town vehicles, equipment and building materials. A hardscape with painted play areas are separated from the parking lot. Adjacent there is also a swing set, a climbing structure and a GaGa Ball Pit. At the south there is an area for grass play and a ball field. The layout of this building causes some challenges, but overall it is functional for the school community.

### Architecture

Overall, Weston Middle School is in fair condition. This building has been well maintained throughout its lifetime. The school floor plan is laid out with 2 corridors running the long length of the building. Numerous perpendicular corridors then break up the plan. Five courtyards also break up the plan and allow daylight into many interior spaces. The norther portion of the building also has 2 wings added on consisting of four classrooms each. Many spaces between the Media Center and the Old Gym do not have much access to daylight as they are all interior bound. Science labs, computer labs and some Art rooms occupy this area. Visitors enter the building at the front into a lobby with an original wood ceiling. The security booth is to the right and the main office is straight ahead. All of the administration offices are located to the left. The floor plan is organized with 6<sup>th</sup> grade classrooms to the northeast, 7<sup>th</sup> grade to the northwest and eighth grade to the south. All shared classrooms and spaces are spread out throughout the middle or core of the building.

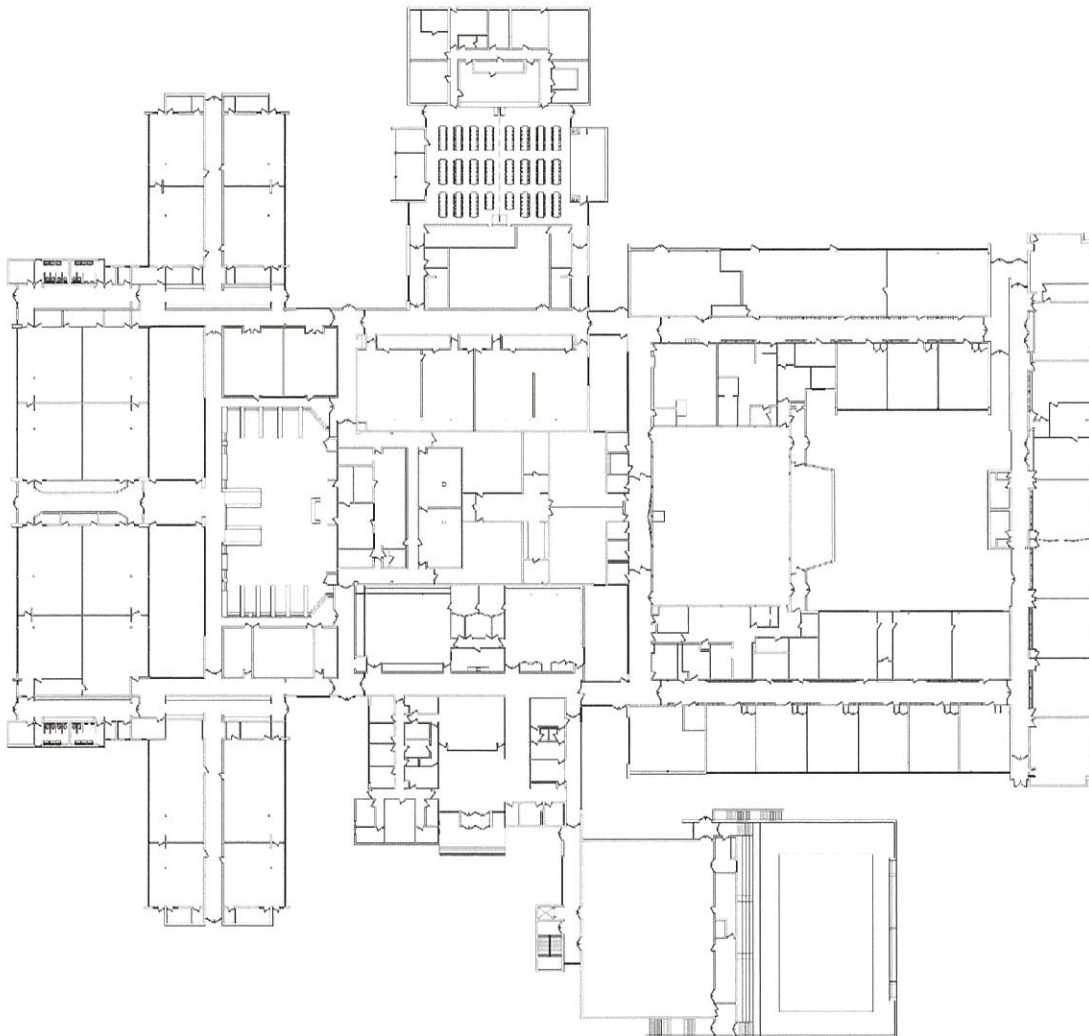


Figure 3: Overall Main floor plan

## Interior



The interior of the building is maintained based on the existing conditions and existing systems. A visual inspection of the walls, floor and ceiling were reviewed during the building walkthrough. The interior walls consist mostly of concrete masonry units (CMU) or block. There are also some areas with sheetrock and paneled walls in between some of the classrooms. Most walls appear to be in fair condition. However, some of the block walls throughout the school have significant vertical cracks. Specifically, with the 8x8 CMU. This most notably occurs in the New Gym where numerous cracks are evident. Metal plates have been added to help remedy this issue. It is recommended to provide further evaluation by a structural engineer.



*Figure 5: Below window wall missing brick course*

Secondly, during the window renovations the removal of brick (likely due to PCBs) had taken place. The interior brick under the sills had never been infilled leaving the wall cavity open and unfinished. This is an aesthetically unpleasing look and it negatively impacts the thermal qualities of these walls. This should be infilled with brick or block. Additionally, rubber baseboard throughout the school is in need of replacement, specifically noted at the built out base of the lockers. These bases are also too large for the lockers and could result in a tripping hazard.



*Figure 4: Locker base and baseboard*

The majority of the ceilings throughout the school are 2x2 or 2x4 dropped acoustical ceilings. There are also some areas with old spline ceilings. The remainder of the building is exposed structure and deck. This occurs in areas such as the gymnasiums, the Media Center, the newly painted decks in the technology rooms, and the original wood at the main entrance and admin spaces. Some corridors are exposed with low ductwork. Most of the acoustical tiles are old and sagging and they should be replaced. Spline ceilings should also be replaced. Some of the exposed ceilings could use a fresh coat of paint and the wood ceilings should be refinished to maintain their lifespan.



*Figure 6: Typical sagging ceiling*

Flooring throughout the school is in good to fair condition. Ceramic tile in restrooms are in good condition. Most of the VCT flooring is good with limited areas of cracking or seams spreading. Areas of the cafeteria expansion joint are mangled and warped. It should be replaced as it could cause a tripping hazard. Overall the interior walls, floor and ceiling are in fair condition.

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The facility consists of a variety of doors, frames and hardware. Most doors are hollow metal set within hollow metal frames. Many doors contain a glazing opening within the leaf. Many are painted and some are in need of new paint. Door hardware appears to meet code. Most doors have hand levers and panic devices. Frames appear to be in good condition although some have begun to rust, most notably at the pool. Windows were recently replaced and are only a few years old. The interior of the windows appears to be in good condition. Overall the interior doors and windows are in good condition. It is recommended to continue painting doors and frames as needed.

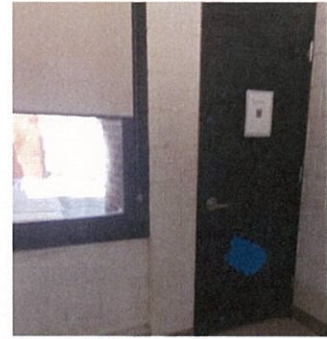


Figure 7: Door peeling paint

Most casework and built-in shelving appear to be original to the school. Most are dated and nearing the end of their useful life. Some built-in bookcases in classrooms don't even have shelves. Most casework does not have knee spaces. The ones with sinks do not have the required knee space and therefore are not considered accessible. Science and Art classrooms have casework that is very dated, peeling and inefficient. These specific areas need more efficient and usable casework. There are some newer areas with blue plastic laminate casework that does appear to be in good condition. Additionally, lockers throughout the school are in disrepair. Student lockers in corridors are mangled and do not lock properly. Locker rooms are also not in the greatest condition. Lockers and the bases in the corridors should be replaced throughout the school.



Figure 8: Science casework

Many ADA accessibility and code issues were noted at this facility. This is a common occurrence given the age of the building and its renovations. These items should be included in the long term capital plan. Numerous doors do not have the required push and pull clearances. Vestibules do not meet the minimum depth. Courtyards do not appear to meet the required egress as dictated by the code. All of the required grab bars do not exist in any of the handicap restrooms. Many of the single toilet rooms do not have the required clearances and are too small. The urinals are floor mounted which is not to code. As previously mentioned, in addition to these toilet rooms other ADA noncompliance items there is also the noncompliant casework and sinks.

## Exterior



Figure 9: Efflorescence and C10 door

The brick walls of the school are generally in good condition, with some areas of settling and spalling. The original building is constructed with brick "veneer" and concrete masonry unit (CMU) interior or brick interior. The energy efficiency of the original construction is very low, and typical in the 1960s ("pre energy crisis"), and not one that is easily corrected. Overall, the mortar appears to be in fair condition with limited areas in need of repointing. Certain areas are in need of more attention. For instance, the area outside of door C10 had some efflorescence at the base of the wall which is a sign of water infiltration. Additionally, some of the painting at the foundation wall is beginning to wear. Some areas of black paint are peeling and should be fixed and repainted. Overall the masonry appears to be in good condition.

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When evaluating the energy efficiency of a building, it is known that nearly 25–40% of all heat energy is lost through windows. The windows were replaced in 2010 with double-glazed aluminum frame windows. They appear to be in good condition. Exterior doors were also replaced. However, some of the hardware and frames were not. Some door are lacking thresholds, weather-stripping and frames are beginning to show signs of rust. Door C10 did not latch after being opened. Although there was a lot of snow during the assessment, the EPDM roof appears to be in good shape. The roof was believed to be replaced around 2000. The roof is approaching the end of its warranty period and may likely need to be replaced in a few years.

## Plumbing

Overall, the plumbing systems for the school are in good condition.

The Domestic cold water is provided by water supply wells that supply water to multiple buildings on the property. The location of the water service for the building was not observed.

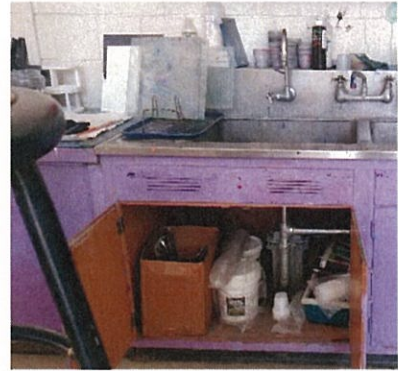
Domestic hot water is produced by three gas-fired water heaters. The first water heater, located in one of the boiler rooms, has an input rating of 450,000 BTUH and a storage volume of 80 gallons. The system is approximately 1-year-old. The system should have an average life expectancy of approximately 20-25 years and remaining life expectancy it about 19-24 years. The second water heater, located in the other boiler room, has an input rating of 76,000 BTUH and a storage volume of 75 gallons. The system is approximately 1-year-old. The system should have an average life expectancy of approximately 20-25 years and remaining life expectancy it about 19-24 years. The third water heater is a tankless water heater located in the office area of the kitchen. This water heater has an input rating of 199,000 BTUH and it appears that the old water heater is being used as a storage tank. The system is approximately 8 years old. The system should have an average life expectancy of approximately 15-20 years and remaining life expectancy it about 7-12 years.

To maximize service life, the Water Heater should be regularly serviced per the manufacturer's maintenance recommendations including, but not limited to, draining and flushing, testing relief valve, and inspecting/replacing anode. Refer to manufacturer's O&M literature.



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Plumbing fixtures for the building appear to be good condition. The urinals are a combination of wall mount and floor mount, both with manual flush valves. The building has some water closets that are wall mounted and some that are floor mounted, both with manual flush valves. The lavatories are a combination of wall hung lavatories with single or double controls metered faucets. The sinks in the art classrooms have solids interceptors on their drainage piping. The interceptors should be checked periodically and cleared of any solids that have been collected in them. Various styles of electric water coolers are provided throughout the building. The science sink drains are piped correctly with acid waste piping. It is unknown where the neutralization tank is that this piping is running into.



While the overall condition of the fixtures is good, one of the issues noted during the visit was that one of the floor drains in the locker room appeared clogged as there was standing water near the drain.

All of the fixtures in the kitchen are connected to a grease interceptor. No sanitary or storm piping issues were observed during the visit. If there are any areas with known issues, it is recommended that the pipes in that area get scoped with a camera to see if the root of the issue can be determined.

## Fire Protection

The facility is not sprinklered.

## Mechanical

The School was originally constructed in 1960 and a major addition was added in 1970. Most of the HVAC systems are original however, some systems have been replaced, and Air Conditioning has been added to various spaces during capital improvement projects from 2000 to 2004.



Heat for the facility is provided by two separate Hot Water Boiler Plants. The 1970 addition is served by the two original HB Smith 450 Mills Boilers which have been retrofit with Power-Flame dual fuel burners. The Boilers appear to be well maintained and in serviceable condition but at nearly 50 years old they are approaching the end of their useful life expectancy, are inefficient by current standards, and will become costlier to maintain. Hot Water Pumps and Fuel Oil Transfer Pump Set are at, or near, the end of their useful lives. Recommend planning for eventual replacement of Boilers, Pumps and related accessories and controls.

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Combustion air is provided by an Air Handling Unit located in the Boiler Room. The unit appears to be at the end of its useful life.

A Smith Model 28 Boiler has been installed for pool heating.

The 1960 Boiler Plant was renovated around 2010 at which time two Smith Model 28-HE-18 Dual Fuel Boilers were installed along with new Hot Water Pumps, Boiler Room Piping, Hydronic Accessories, and Fuel Oil Transfer Pump Set and piping. The Boilers and equipment appear to be in good condition with 20 to 30 years of useful life remaining. The equipment, piping and insulation all appear to be in good condition with no visible signs of leakage. Combustion air is provided by two roof mounted gravity vents ducted into the Boiler Room which appear to be adequate.



Since Boiler life can be affected by poor water quality and inconsistent maintenance, it is recommended that the boiler water be periodically tested. Regular preventive maintenance should be performed to maximize the service life of Boilers and related equipment.



Pump life can be maximized by continued service, including periodic inspection, with repacking, lubrication, and replacement of bearings and motors as required.

The Boiler Chimneys appear to be adequate to prevent reintroduction of flue gasses into the building however, a vent serving a Water Heater in the 1970 Boiler Room may be problematic, especially given its proximity to outside air intakes. The Water Heater Vent may be extended if necessary. Chimneys should be cleaned and inspected occasionally as part of normal preventative maintenance.

The facility is served by a 15,000-gallon fiberglass Underground Fuel Storage Tank (UST), installed in 1990. The tank was last inspected in 2009 and is scheduled for removal in 2020. The Tank Inventory and Leak Detection System should be periodically tested for proper operation.

Heating, Ventilation and Air Conditioning for the facility is provided by a combination of Air Handling Units, Packaged Rooftop Air Conditioning Units, Fan Coil Units and Unit Ventilators.

The 1970 portions of the school including Classrooms, Library, and Administrative Offices are served by original Air Handling Units located in the mechanical penthouse, installed in 1970. The units are at the end of their useful lives and should be budgeted for replacement. Perimeter Classrooms are served by Unit Ventilators and Fan Coil Units. The Unit Ventilators are original and at the end of useful life. The Fan Coil Units are supplied with Chilled Water and provide Air Conditioning to spaces served by Unit Ventilators. The Fan Coil Units appear to have 5 to 10 years of useful life remaining.

The Air Handling Units serving the two Gymnasiums were installed at the time of construction (1960 and 1970) and are at the end of their useful lives and should be budgeted for replacement.

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Unit Ventilators and Fan Coil Units do not meet current standards for classroom acoustics and should be replaced with ducted Air Handling Equipment at time of replacement.

The Packaged Rooftop Air Conditioning Units, and Fan Coil Units installed in 2000 thru 2004 have approximately 10 to 15 years of useful life remaining.

Until the time of replacement, the existing Air Handling Equipment should receive continued preventative maintenance including regular lubrication, filter and fan belt replacement, and motor and bearing replacement as required. Condensate pans and drains should be cleaned and valves and dampers, including actuators, should be periodically checked for proper operation. DX Cooling Equipment should be checked for proper refrigerant charge, and compressor and condenser fan operation. Touch-up painting should be done as required.



A new Pool Dehumidification System has been installed but final commissioning has not yet been completed. The system consists of a Dectron Dry-O-Tron unit located on grade and ducted into the Natatorium. Once online, the existing system serving the Natatorium will be abandoned and the new system will provide temperature and humidity control of the space.

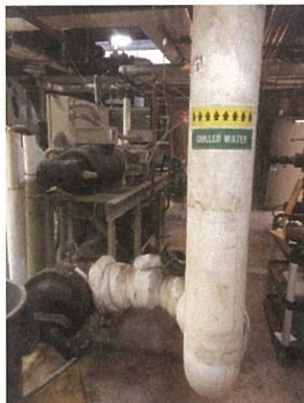
The school is served by approximately 50 Roof Exhaust Fans which provide Toilet and General Building Exhaust. The fans are believed to have been installed as part of the 2004 project and are in good condition with 10 to 15 years of useful life remaining. The fans should be regularly inspected for proper motor and damper operation. Belts,

actuators and motors should be replaced as needed.

The Kitchen is furnished with a Grease Hood and roof mounted Grease Exhaust Fan. The hood is equipped with a chemical extinguishing system. The Grease Exhaust Fan appears to be in serviceable condition. The grease hood baffles, ductwork and fan should continue to be cleaned regularly. A second Kitchen Hood removes heat produced by the Convection Oven.



A 120 Ton Trane Chiller is installed in the 1970 Boiler room with roof mounted Remote Condensing Unit.



The Chiller supplies chilled Water to various Air Handling Units and Fan Coil Units serving the 1970 portion of the facility. The Chiller and Condensing Unit were manufactured in 2003, installed in 2004, and appear to be in serviceable condition with 10 to 15 years of useful life remaining. Chillers should be serviced annually by an HVAC Service Company in accordance with the manufacturer's Operation & Maintenance requirements.





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Perimeter Classrooms and miscellaneous spaces are served by Hot Water Fined Tube Radiation installed at the time of original construction. The enclosures are showing signs of age and the heating elements are likely providing diminished heating capacity having exceeded their useful life expectancy. Recommend planning for replacement as part of any major HVAC improvements.

Facility piping and ductwork interior should be inspected to determine condition and actual remaining service life. If the ductwork is found to be contaminated with dust and debris, it should be cleaned to ensure

good indoor air quality. Flushing and cleaning of piping, coils and strainers will help maintain good fluid flow and heat transfer.

Several areas are provided with Air Conditioning by Ductless Split Systems including the Technology areas of the "F" Wing, the Choral Room (G Wing) and the Ensemble Room (F Wing). The Units appear to be in good condition with 10 or more years of useful life remaining.

Corridors generally lack proper ventilation as required by the Building Code. Corridors ventilation should be provided as part of any future HVAC improvements.



Automatic Temperature Control is provided by a combination of DDC and pneumatic controls. Controls Compressors are located in the Boiler rooms. The compressors appear to be in good condition but the pneumatic controls are obsolete and unable to provide the control necessary for optimal building efficiency. It is recommended that any HVAC improvements include installation of Direct Digital Controls DDC with the eventual replacement of the entire pneumatic control system. New controls will be integrated into the existing Alerton Facilities Management System.

Electrical

Interior Lighting

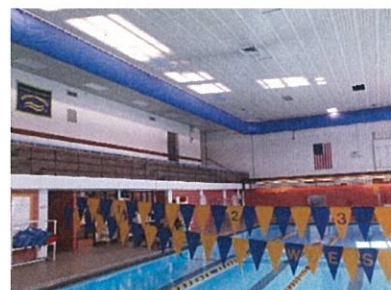


The existing luminaires are mostly made up of recessed 2'x4' parabolic fluorescent fixtures, recessed lensed 2'x4' fluorescent fixtures and some down light fixtures. In the Main Office and Lobby there are surface mounted fluorescent wraparound fixtures on a wood ceiling. The Classrooms are a mix of recessed lensed 2'x4' fluorescent fixtures and surface mounted fluorescent wraparound fixtures, except the new Tech. Ed. Rooms have pendant mounted LED wraparound fixtures. The Corridors have both recessed lensed 2'x4' fluorescent fixtures and recessed 2'x4' parabolic fixtures. The Cafeteria has recessed 2'x4' parabolic fixtures and the Stage has pendant mounted incandescent "RLM" fixtures with screw-in fluorescent lamps installed. There are no theatrical lights installed on the Stage.

The Kitchen and Serving area has surface mounted wraparound fixtures and recessed down light fixtures. The Gymnasium has pendant mounted industrial high bay 3-lamp fluorescent fixtures with lenses and wire guards. The Media Center/Library has surface mounted LED wraparound fixtures mounted to the bottom of the steel trusses. There are also a few small down light fixtures. The Science classrooms have recessed lensed 2'x4' fluorescent fixtures. The Courtyards that have light fixtures in them have a mix of wall mounted fluorescent "jelly jar" fixtures and wall mounted LED flood light fixtures. The Computer Labs have recessed 2'x4' parabolic light fixtures. The Pool has recessed lensed 2'x4' fluorescent fixtures along the two long sides of the room and a wall mounted 2-lamp wood valance fixture along the two short sides of the room.



The Locker rooms for the pool and new Gymnasium have recessed 1'x4' & 2'x4' lensed fluorescent fixtures along with wall mounted fluorescent wraparound fixtures in the Bath rooms. The utility spaces are typically illuminated by pendant mounted fluorescent wraparound or industrial fluorescent fixtures with wire guards. Most fixtures were working, but many the fluorescent fixture are near the end of their useful life and should be replaced with new efficient LED fixtures.



## Exterior Lighting



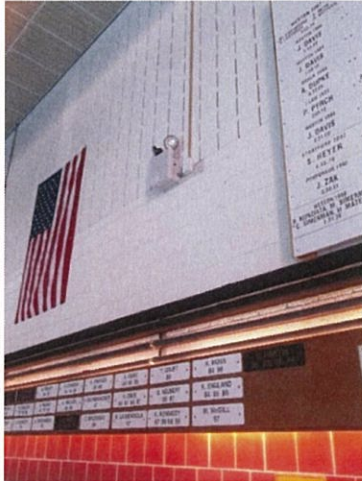
The existing luminaires throughout the exterior consist of recessed down light fixtures in the canopies. Building mounted “full cutoff” LED sconce type fixtures, round surface mounted fixtures (fluorescent or LED) and building mounted LED flood lights. The parking lot lighting is provided by pole mounted (approximately 20’ high) LED low profile full cutoff fixtures. There are also pole mounted fixtures, both low profile full cutoff and flood light type along the access driveway around the back of the school. The pole mounted fixtures are all in good condition and should not need to be replaced or upgraded. The lights were not on at the time of the walk through since it was

late morning early afternoon, so their operation could not be verified. It appears that all the exterior egress doors have both normal and emergency light fixtures installed at them, but without more information we cannot determine if the minimum light levels required are meeting the current code to allow for proper egress away from the building.



## Exit signs & Emergency Lighting

The existing emergency lighting is provided by self-contained battery powered normally off fixtures (twin heads, squares & recessed round fixtures). There are also normal building fixtures on the generator distribution that appear to be used for emergency lighting. The current code does not allow a single transfer switch to serve both emergency and standby loads from the same switch. The standby loads (ie: HVAC equipment, kitchen refrigeration, misc. power, etc.) should be moved to a second transfer switch. We were not able to determine the extent of lighting on the generator to determine if proper light levels are provided during an emergency condition to meet the current code. This should be reviewed further, to determine if any area requires more emergency fixtures, in addition to providing a “pure” emergency system. There are remote mounted normally off single & twin head emergency fixtures in the Courtyard, these do not appear to be able to provide the required emergency light levels to properly exit the courtyard. Additional emergency light fixtures should be installed to meet the current code requirements. We were not able to determine if there are enough normal or emergency fixtures to properly illuminate all the egress paths from the building to meet the current code.



There are existing exit signs located throughout the facility, these signs are white thermoplastic housings with LED lamps and possibly some fluorescent lamps as well. These signs appear to be in good condition and were all operating properly. The stair at the new Gymnasium and Pool is missing an “area of rescue” sign at both levels. This is the only exit from the Gym. if the corridor is not accessible. There are no low mounted exit signs in the three assembly spaces (new Gym., old Gym. & Café.), required under the current code. We recommend added low signs to all doors in the three rooms. There are at least a dozen Classrooms that require exits from the space, it does not appear that these rooms have the required illuminated exit signs and emergency lights installed. Each room over 1K square feet should be confirmed that there is an illuminated sign at the two doors and emergency lighting, if they do not exist add as required to meet the code. The exit signs in the two gymnasiums do not all have protective wire guards installed, we recommend adding these to protect the signs. The exit signs are all in good condition and were all working at the time of the walk through.



The existing electrical service originates from a pad mounted utility transformer located to the north-east side of the building. From the utility transformer, the secondary feeder runs underground to a 2500 amp, 480Y/277V - 3 phase service rated switch in the Boiler Room. The service switch intern feeds two distribution sections. The distribution sections of the switchboard feed panels throughout the building in local electrical closets and directly in rooms. There are two motor control centers in this room also, one “normal” and one “emergency” (both 480/277V). There is an Emergency Electric room adjacent to the Boiler room with an automatic transfer switch fed from a 275 KW diesel generator outside next to the pad mounted utility transformer. The transfer switch feeds a 480/277V panel, 150KVA step down transformer and a 208/120V panel. The two generator panels serve some interior lighting, exterior lighting, paging system, security system,

### Power



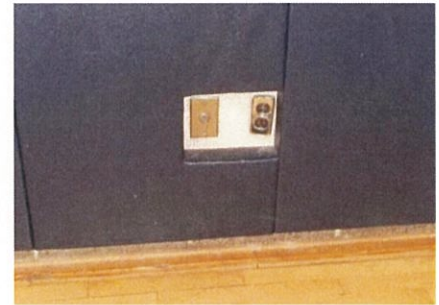
The existing electrical service originates from a pad mounted utility transformer located to the north-east side of the building. From the utility transformer, the secondary feeder runs underground to a 2500 amp, 480Y/277V - 3 phase service rated switch in the Boiler Room. The service switch intern feeds two distribution sections. The distribution sections of the switchboard feed panels throughout the building in local electrical closets and directly in rooms. There are two motor control centers in this room also, one “normal” and one “emergency” (both 480/277V). There is an Emergency Electric room adjacent to the Boiler room with an automatic transfer switch fed from a 275 KW diesel generator outside next to the pad mounted utility transformer. The transfer switch feeds a 480/277V panel, 150KVA step down transformer and a 208/120V panel. The two generator panels serve some interior lighting, exterior lighting, paging system, security system,

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fire alarm system, kitchen refrigeration, misc. power and some HVAC equipment (heating). The main electrical equipment is older and nearing the end of its useful life and will need to be replaced in the near future, also the location of the equipment does not meet current code. This room only has one door in or out of the room, which would require double the working clearances in front of the equipment or an unobstructed path to the door which it does not have. When the equipment is going to be replaced, careful planning and coordination will be required to locate the new equipment and be code compliant.



The existing power receptacles throughout the school are mostly recessed mounted duplex and quad receptacles with metal cover plates. There is some surface mounted raceway (wire mold) with surface mounted devices and some surface mounted conduit to surface mounted devices. The new Tech. Ed. Rooms have ceiling mounted cord reels with a duplex receptacle in a single gang box. There are also ceiling mounted cord reels with pre-ended duplex/quad receptacles mounted to them. The receptacles for the most part appear to be in good operating condition, there are a few locations that spotted that the devices should be replaced or remounted to the back box.



### Voice / Data



The existing telephone system demark is in the Boiler Room to the south of the switchgear. There is old telephone punch down blocks adjacent to the demark. The main Data Closet is in the north-west corner of the Media Center, which has a network rack for data, punch down blocks for phones and security panels. There is a second Data rack in the Custodial Office across from the Tech. Ed. rooms. The Simplex master clock headend equipment, and Telcor sound cabinet with amplifier & cassette deck are in the south-east corner of the Main Office. The existing data outlets throughout the school are recessed mounted. There are desk mounted phones in all the classrooms, along with a wall mounted clocks and recessed ceiling speakers. There are a few rooms with wall mounted phones like the Gymnasium. There are speakers in all the hallways and utility rooms. There are desk phones in all the Offices. All equipment appears to be operating properly. There are wireless access point devices installed throughout the school. |



### Fire Alarm

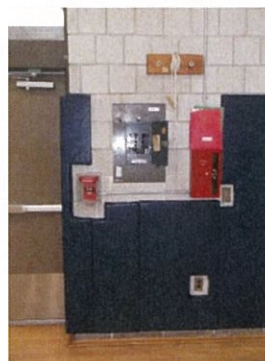


The existing fire alarm system is an addressable Edwards (EST3) system, with the control panel located in the Main Office on the south wall. There is a remote alarm panel along with multiple power supply panels (NAC panels) throughout and emergency phones in the Gymnasiums. There are manual pull stations at all egress doors and in the Gymnasium. The pull stations in the Gym. have “stopper” covers. There are audio/visual devices throughout the building including all the Classrooms, the Pool, the Locker Rooms, the Gymnasiums and the Cafeteria. There are carbon monoxide detectors in the mechanical rooms where there is fuel burning equipment.

There are smoke detectors throughout the school, in the corridors, classrooms, stairs, etc. There is a beam detector transponder and receiver wall mounted on the east and west walls of the Pool. The system appears to have voice capabilities throughout the school and not just in the assembly spaces. The devices throughout appear to be in good operating condition.

There is an existing security lock down system throughout the school, with emergency push button stations at the major entry/exit locations in addition to the Main Office, Security Desk and Cafeteria.

There is not “area of rescue” system for the stair at the new Gymnasium & Pool. This is code requirement, both landings of the stairwell should have a two-way communication system installed. The systems headend unit should be located either in the Main Office or the Security desk. In addition to the communication system, illuminated signs should be installed at each stair door. |



# WESTON SCHOOL FACILITIES FEASIBILITY STUDY

## WESTON MIDDLE SCHOOL - FACILITY CONDITIONS ANALYSIS

TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	RANKING				CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS	
			4	3	2	1				
<b>SITE CONDITIONS</b>										
S1	Parking is approaching the end of its life cycle. Numerous cracks cover the area & some bituminous curbs are starting to fail.			3			Reclaim and repave.	\$ 510,000		
S2	Large stairways limit handicap access to the main office.			3			Provide an accessible ramp.	\$ 150,000 Allowance		
<b>SITE SUBTOTAL</b>										
<b>EXTERIOR CONDITIONS</b>										
A1	Brick is spalling or mortar is in need of repointing or signs of efflorescence	General		3			Patch, repair, or replace brick and repoint and wash as necessary.	\$ 15,000		
A2	Door thresholds or concrete pads have a greater than 1/2" transition to grade	ANSI 117 (ADA)		3			Provide ramp or re-grade asphalt/concrete to allow for 1/2" maximum vertical transition.	\$ 6,000		
A3	The black paint is peeling off the brick			3			Scrape, prime and paint as required to maintain lifiespan	\$ 25,000		
A4	Foundation parge coating is peeling			3			Wash and provide a parge coat to foundation wall	\$ 11,000		
A5	Roofs will be nearing the end of its useful life (based on warranty)		4				The roof is due for replacement in approximately 2020+/-	\$ 3,587,064	Estimate includes EPDM to match existing	
<b>EXTERIOR SUBTOTAL</b>										
								\$	<b>3,644,064</b>	\$

**WESTON MIDDLE SCHOOL - FACILITY CONDITIONS ANALYSIS**

TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	RANKING	CORRECTIVE ACTION	ESTIMATED COST	REMARKS
<b>INTERIOR CONDITIONS</b>						
A6	The required clearance depth or approach or corridor width does not meet code requirements	413.6 (ADA) 1101.2 (IBC) ANSI 117.1	3	Reconfigure space if possible otherwise, supply push button door operator where required.	\$ 20,000	
A7	All door push and/or pull maneuvering clearances do not meet code.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1	3	Where obstruction is not furniture related, modify door swing and/or location to comply. Where the previous is not easily achieved, supply push button door operator where required.	\$ 19,000	
A8	Toilet rooms do not have a handicap stall	(B)1108.0 (ANSI A117.1) 603-606	2	Reconfigure to provide one	\$ 1,625,000	Based on 13 larger restrooms - including locker rooms
A9	Due to the size, restrooms do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606	2	Reconfigure the room to enlarge and provide the minimum dimensional requirements.	\$ 350,000	Based on 14 small single restrooms
A10	The required toilet grab bars are not installed	(B)1108.0 (ANSI A117.1) 603-606	2	Install code required grab bars	\$ 5,250	
A11	Existing sinks do not meet accessibility requirements		3	Provide at least one accessible sink	N/A	
A12	Some of the existing drinking fountains do not comply with accessibility requirements located in corridors.	(B)1108.6 (ANSI A117.1) 602	3	Remove existing drinking fountains and install new Handicapped drinking fountains.	\$ 7,500	
A13	The required knee spaces do not exist at most cabinetry or is located at the wrong height		3	Since the cabinetry is not accessible and is very dated or not included in some rooms it may be time to replace them all together	\$ 628,000	
A14	There is no second means of egress		2	Install a second door, preferably to the exterior	\$ 16,000	
A15	There is no accessibility to stage or fitness		2	Provide a lift or ramp	\$ 50,000	covers 2 lifts



**WESTON MIDDLE SCHOOL - FACILITY CONDITIONS ANALYSIS**

TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	RANKING	CORRECTIVE ACTION	ESTIMATED COST	REMARKS
A16	A limited amount of 9X9 tile was noted		3	Remove and replace	\$ 4,000	There is a possibility that these tiles/glue contain asbestos
A17	Ceilings are old and dated, many are sagging and nearing the end of their lifecycle		3	Remove and replace.	\$ 2,100,000	This should include new ceiling mounted devices. See E3 for new lighting cost
A18	Lockers are nearing the end of their life span		2	Remove lockers and replace with new	\$ 346,250	Corridors and Locker rooms
A19	Doors and frames can use some touch up paint		3	Paint as needed - specifically at door frames	\$ 35,000	
A20	The courtyards do not have 2 means of egress as depicted by the code		3	Reconfigure and provide 2 means of egress	\$ 46,000	allowance
A21	Showers at pool locker rooms are in need of renovations		3	Reconfigure	\$ 200,000	allowance
<b>INTERIOR SUBTOTAL</b>						\$ 5,452,000
<b>PLUMBING/FIRE PROTECTION</b>						
P1	Periodically inspect, test & replace valves, pressure regulators, backflow preventers, thermostatic mixing valves, pumps, etc.	General	3	Replace faulty equipment as required.	\$ 10,000	Cost over next 10 years.
FP1	Building is not currently fully protected with a sprinkler system	NFPA 25	4	Provide sprinkler system for entire building	\$ 778,110	Based on \$5/sf at approximately 155,622 sf
<b>PLUMBING/FP SUBTOTAL</b>						\$ 788,110

**WESTON MIDDLE SCHOOL - FACILITY CONDITIONS ANALYSIS**

TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	RANKING	CORRECTIVE ACTION	ESTIMATED COST	REMARKS
<b>MECHANICAL SYSTEMS</b>						
M1	1970 Boiler Room Equipment is at end of useful life expectancy	General	3	Replace Boilers, Pumps and related piping and equipment.	\$ 520,000	Tier 1
M2	AHU Serving 1960 Classrooms is at end of useful life	General	3	Replace Air Handling Unit	\$ 300,000	Tier 1
M3	Add Air Conditioning to 1960 Classrooms		4	Install Air Conditioning Equipment	\$ 140,000	Cost added to Central Air Handling Equipment. Tier 1
M4	AHUs Serving 1970 Classrooms are at end of useful life	General	3	Replace Air Handling Units	\$ 1,250,000	Air Conditioning provided by Existing AHUs & Chiller Tier 1
M5	Unit Ventilators have exceed their life expectancy	General	3	Replace Unit Ventilators with Ducted Roof Mounted Air Handling Equipment	\$ 1,120,000	Tier 1
M6	Add Air Conditioning to Item M5 above		4	Install Air Conditioning Equipment	\$ 300,000	Cost added to Central Air Handling Equipment. Tier 2
M7	The Air Handling Systems serving Gymnasiums are at end of useful life	General	3	Replace Air Handling Systems	\$ 330,000	Tier 1
M8	Add Air Conditioning to Gymnasiums		4	Install Air Conditioning Equipment	\$ 150,000	Cost added to Central Air Handling Equipment Tier 2
M9	The Air Handling System serving Cafeteria is at end of useful life	General	3	Replace Air Handling System	\$ 130,000	Tier 1
M10	Add Air Conditioning to Cafeteria		4	Install Air Conditioning Equipment	\$ 60,000	Cost added to Central Air Handling Equipment Tier 2
M11	Corridors lack proper ventilation	IMC Chap 4	3	Install Corridor Ventilation Systems	\$ 50,000	Tier 1
M10	Finned Tube Perimeter Radiation is likely near end of useful life		4	Replace Finned Tube Radiation	\$ 260,000	Tier 1
M12	Boilers and Pumps routine maintenance		2	Perform Boiler cleaning, burner service, and pump inspection and maintenance per manufacturer's recommendations.	\$ 30,000	Cost over 10 years Tier 1

**WESTON MIDDLE SCHOOL - FACILITY CONDITIONS ANALYSIS**

TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	RANKING	CORRECTIVE ACTION	ESTIMATED COST	REMARKS
M13	Air Handling Equipment routine maintenance		2	Replace filters, clean drain plans, test actuators and linkages, lubricate bearings, replace belts, etc.	\$ 40,000	Cost over 10 years 1
M14	Exhaust Fans should be inspected and maintained.		2	Replace belts, Check motors and dampers for proper operation.	\$ 10,000	Cost over 10 years 1
M15	Chilled Water System routine maintenance		2	Check operation of Compressors, Condenser Fans, Pumps. Clean strainers, check refrigerant charge and controls.	\$ 6,000	Cost over 10 years 1
M16	Underground Fuel Oil Tank is scheduled for replacement in 2020.		2	Replace tank, piping, fuel oil transfer set, and inventory control system.	\$ 180,000	Tier 1
M17	Pneumatic Controls are obsolete		3	Install new DDC Controls and interface with Facilities Management System.	\$ 600,000	Include in Tier 1
M18	Tier 1 HVAC upgrades		2	One for one replacement of Equipment at end of useful life.		Total Tier 1 Cost: \$4,966,000
M19	Tier 2 HVAC upgrades		4	Add Air Conditioning Equipment to spaces not currently conditioned.		Total Tier 2 Cost: \$510,000
M20	Tier 3 HVAC upgrades		4	Includes consolidation of the Heating Plants and new High Performance HVAC Systems and related Structural Modifications		Total Tier 3 Cost: <b>\$12,000,000</b>
<b>MECHANICAL SUBTOTAL</b>				Tier 1 + Tier 2 Cost		\$ 5,476,000
<b>ELECTRICAL SYSTEMS</b>						
E1	Currently the emergency lighting is provided by stand alone battery units (normally off). There appear to be areas that don't have sufficient emergency lighting to meet the current code.		1	Install a code approved emergency lighting system throughout the school, there are a few options to achieve this (new AC inverter system, stand alone battery devices, battery ballast in general light fixtures or generator via emergency transfer switch.	\$ 50,000	\$50K is for a replacing or adding to 60% of the schools existing twin head battery distribution, it will cost approx. \$100K to modify the existing generator distribution, the third option would fall somewhere in between

WESTON MIDDLE SCHOOL - FACILITY CONDITIONS ANALYSIS						
TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	RANKING	CORRECTIVE ACTION	ESTIMATED COST	REMARKS
E2	It does not appear to be sufficient normal and emergency lighting in the Courtyards to meet the current code for egress		2	Install new LED sconce fixture with emergency battery ballast	\$ 7,500	approximately \$500 per fixture
E3	Existing fluorescent & incandescent fixtures throughout the school, appear fully operational but not very efficient	4		Replace all existing fluorescent and incandescent fixtures with new energy efficient LED fixtures. Existing LED fixtures shall remain	\$ 840,000	allowance excludes the Pool, Tech. Ed. and the Media Center (which already have LED fixtures or are scheduled to have new LED fixtures installed)
E4	Handicap accessible individual toilets require call for aid system (not installed) per the current code		2	Install new "call for aid" system in each newly configured individual accessible toilet room	\$ 4,800	allowance of \$400 per location
E5	There are no "low" mounted exit signs in the three assembly spaces (2-Gym's. & Caf�e.) to meet the current code		2	Install new self-illuminating exit sign on the kick plate of each pair of egress doors out of these rooms, plus 2 additional in the Gym.	\$ 5,000	
E6	There is no two-way communication system or illuminated signage for the "area of rescue" at the stair across from the new Gym.		1	Install new illuminated "area of rescue" signage and two-way communication system at each level of the stairwell across from the new Gym.	\$ 6,000	
E7	Possible missing exit signs and emergency lights in rooms over a thousand square feet		2	Add two exit signs, one at each door and emergency lights per room.	\$ 15,000	approximately \$1500 per room
E8	Tier 1 HVAC upgrades	4		One for one replacement of existing equipment that is not working properly		allowance of \$20,000

**WESTON MIDDLE SCHOOL - FACILITY CONDITIONS ANALYSIS**

TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	RANKING	CORRECTIVE ACTION	ITEMIZED ESTIMATED COST	REMARKS
E9	Tier 2 HVAC upgrades		4	Install air conditioning in the school to areas it doesn't exist currently, requiring electric service upgrade. Replace existing 2500 amp 480V service with new 3000 amp 480V service	\$ 350,000	allowance
E10	Tier 3 HVAC upgrades		4	Same as tier 2, except replace existing air conditioning equipment with new throughout.		allowance of \$425,000
<b>ELECTRICAL SUBTOTAL</b>					<b>\$ 1,278,300</b>	
<b>TOTAL ESTIMATED COSTS</b>					<b>\$ 17,298,474</b>	

**LEDGEND PRIORITY - RANK**

- 1 Urgent priority - These items should be corrected as soon as possible and most likely encompass code, health and life safety issues.
- 2 High priority - These items should be corrected within a reasonable amount of time after the highest priorities referenced above. These may be associated with high priority maintenance issues or accessibility issues for the physically challenged. Maintenance items have a remaining useful life from 1-3 years.
- 3 Moderate priority - These items may be associated with aesthetic or general maintenance issues. Remaining useful life of 3-5 years.
- 4 Low priority - These items include maintenance and aesthetic issues that are not in current need of replacement, but should continue to be monitored on a regular basis. These items typically have a remaining useful life of 5-10 years or greater.

