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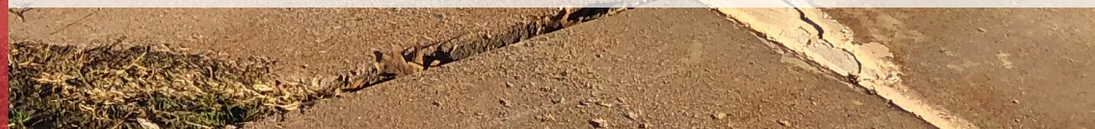
MEDFORD

pra
PLUNKETT RAYSICH
ARCHITECTS, LLP

MEDFORD AREA SENIOR HIGH SCHOOL

FACILITY ASSESSMENT



UPDATED: JULY 2019

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SECTION 01

INTRODUCTION / EXECUTIVE SUMMARY

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INTRODUCTION / EXECUTIVE SUMMARY

This facility assessment is the outcome of work completed by J.H. Findorff & Son Inc. (Findorff) for the Medford Area Public School District. The facility assessment documents the physical condition of the Medford Area Senior High School (MASH) building, site, and systems. Plunkett Raysich Architects, LLP (PRA) completed the educational space analysis of MASH.

The process to generate this report included:

- Existing plan review
- Interviews with principal and administrators
- Meetings with building and grounds staff
- Review of existing District proactive capital maintenance planning
- In-depth site visits and site investigation (non-destructive investigation techniques)

Those in attendance during the site walk-throughs included: Nathan Hiles and Jake Bartes from Findorff, and Steve Kieckhafer, Molly Cabaj, and Ken Turba with PRA.

The report is divided into multiple sections.

Section 02 documents the geographical information related to the high school, as well as other general building information (building square footage, site area, etc.).

Section 03 is divided into five sub-sections related to site, envelope, interiors, systems, and capital maintenance summary with costs. The Facility Assessment review section begins with a component summary of each area. The written summary is followed by photos to provide visual context to the summary.

The outcome of the Facility Assessment review is summarized in the Capital Maintenance Budget Summary. This Capital Maintenance Summary incorporates individual maintenance projects to be addressed through the district's capital maintenance budget over the next 10 years. **This 10-year capital maintenance plan addresses maintaining the existing buildings' conditions and not potential longer-term options to address broader educational and instructional needs that are included in Section 04 Educational Space Analysis portion.**

After the individual maintenance projects were identified (Section 03), prioritization was completed through discussions with the District team and are summarized as follows:

- Priority 1 (Immediate need)
- Priority 2 (1-2 year planned need)
- Priority 3 (3-5 year planned need)
- Priority 4 (6-10 year planned need)

The District provided proactive repairs and maintenance by tracking equipment lifespan and regularly monitoring the condition of the building's component parts. The District does all they can do to repair and maintain before full replacement. Even with these proactive efforts, the amount of maintenance needs identified in this report will require a more significant investment in the maintenance of the facilities over the next 10 years.

Below is a summary of each building's identified needs, divided into three categories:

- Capacity Analysis

- Other Educational Needs
- Facility Maintenance Needs

Please note that solutions and budgets to address the educational and instructional needs highlighted in the "Capacity Analysis" and "Other Educational Needs" sections below are not included in this report.

Section 04 is a report produced by PRA and documents the educational adequacy and capacity analysis of the MASH. At the end of each section related to a building's capacity, there is a listing of other educational needs gathered from building observations, and interviews with the Administrators and Principals. Solutions to address the educational and instructional needs of each building is not included in this report.

Capacity Analysis (Section 04)

- Over half of the classrooms are smaller than what is recommended from an educational planning standpoint.
- Lab and Technical Education spaces are undersized

Other Educational Needs (Section 04)

- Current facility does not accommodate all the spaces desired by the District in order to meet the needs of their future offerings for the students (STEAM, etc.)
- Lack of co-curricular programming space
- Lack of collaborative instructional spaces
- Lack of additional athletic space to accommodate indoor practice needs during the late fall season sports as well as the early spring sports.

Facility Maintenance Needs (See Section 03 for detail, budgets for these items included in Section 03)

- Asphalt replacement is needed around the MASH site.
- Drainage and facility upgrades at softball and baseball fields.
- Tennis court repairs are needed
- Roofing replacements needed for sections at the end of useful life (20 years)
- Caulking and tuckpoint of exterior walls are needed.
- Replace Remaining 9x9 Floor Tile as it's indicative of asbestos containing materials
- Replace miscellaneous finishes that are failing throughout the building
- Replace the domestic water distribution lines
- Replace sections of hot water pipe and insulation
- Add air conditioning to the main core spaces
- Boiler Replacement needed within 10-year maintenance period
- Replace main panels and switchgear as it is past is useful life
- Energy efficiency LED lighting upgrades are recommended

SECTION 02

HISTORY / DISTRICT INFORMATION

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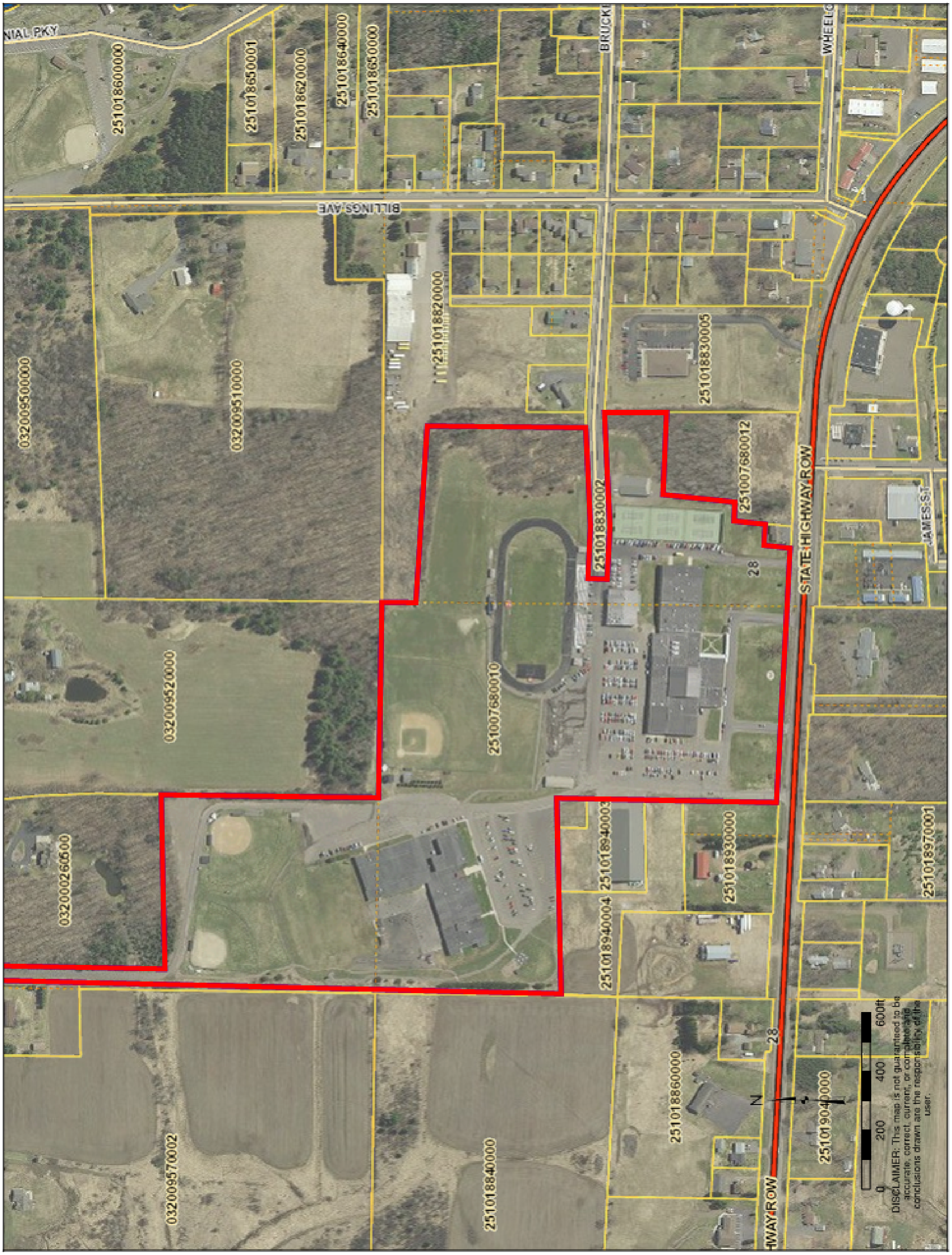

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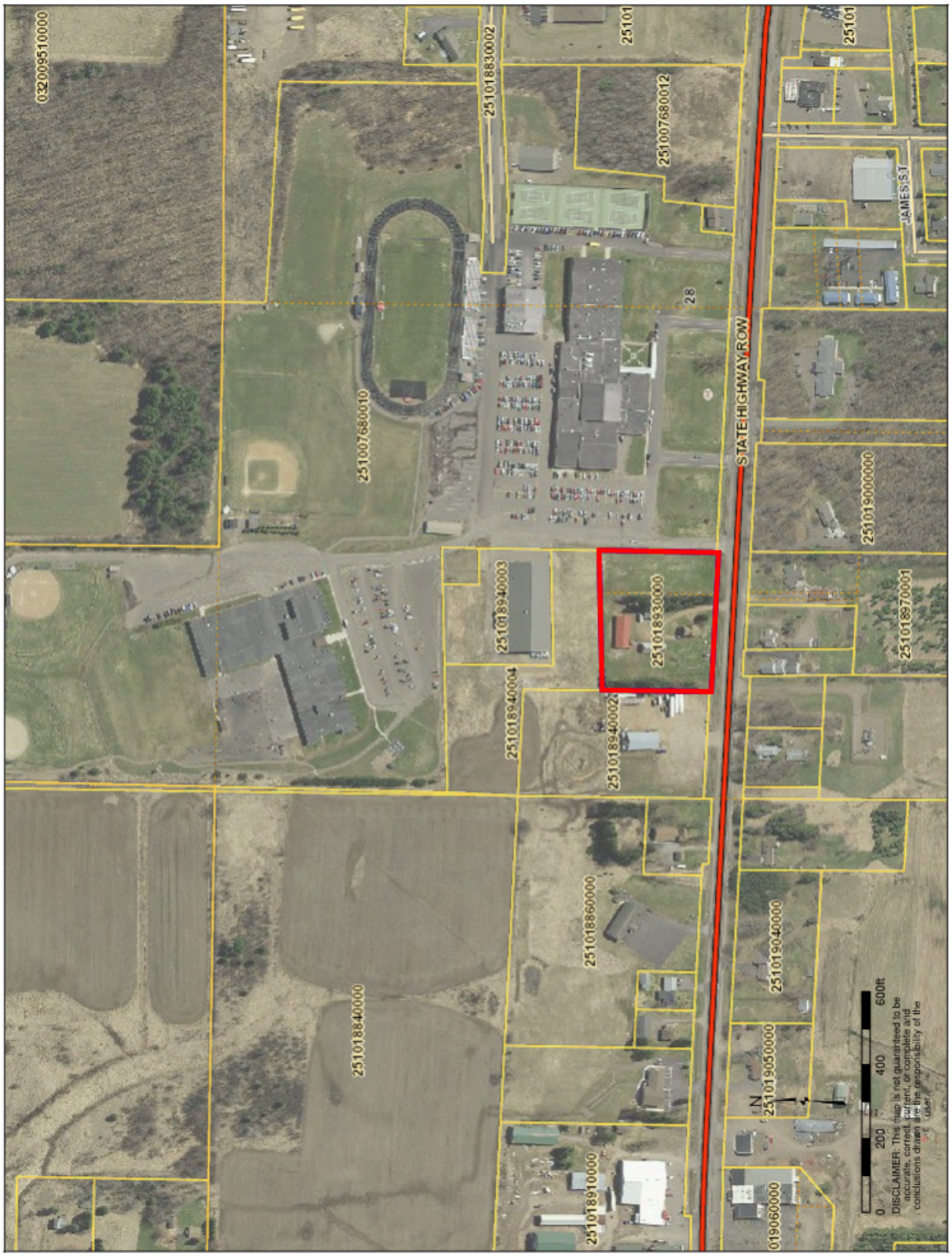
High School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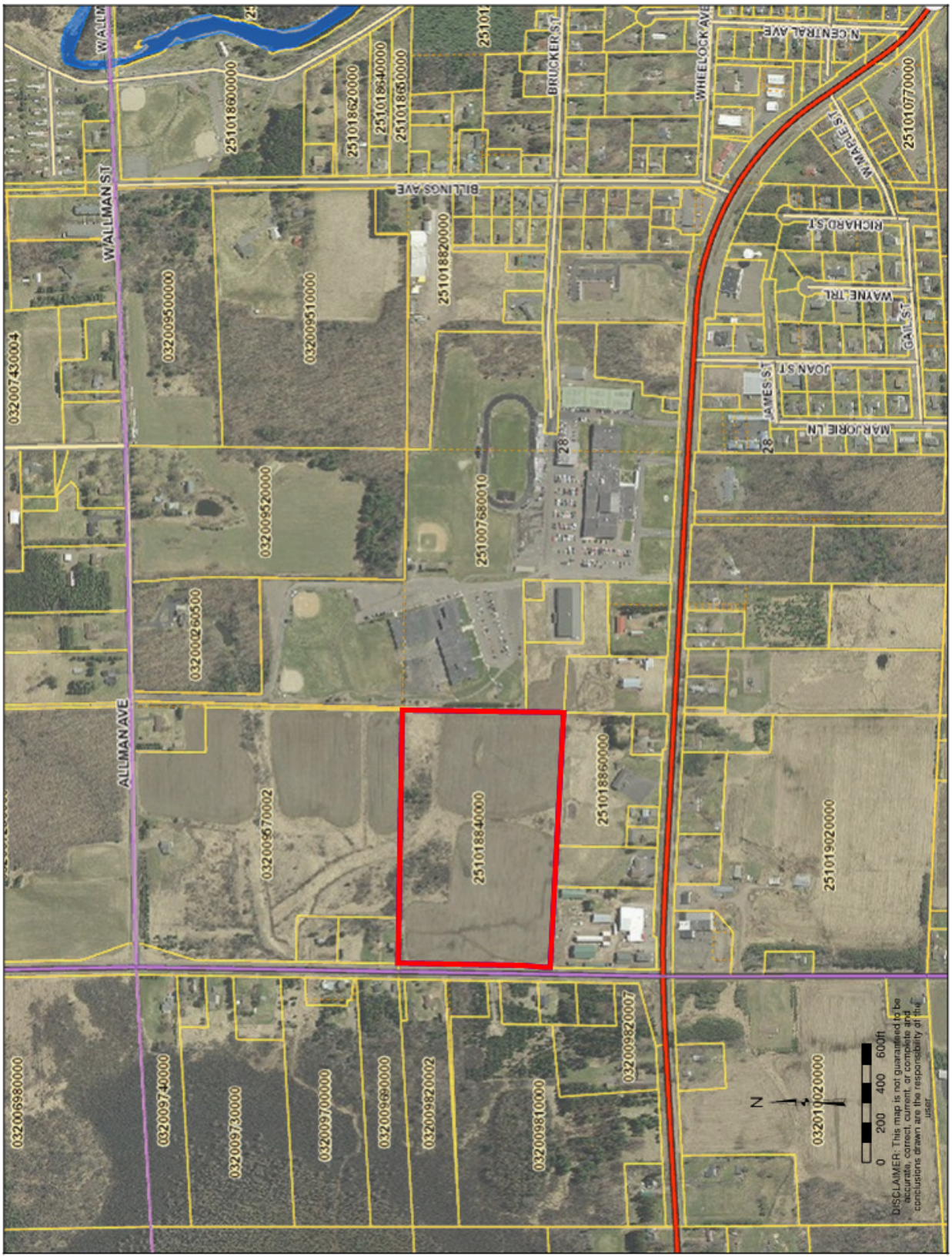
Ag Barn



New Property

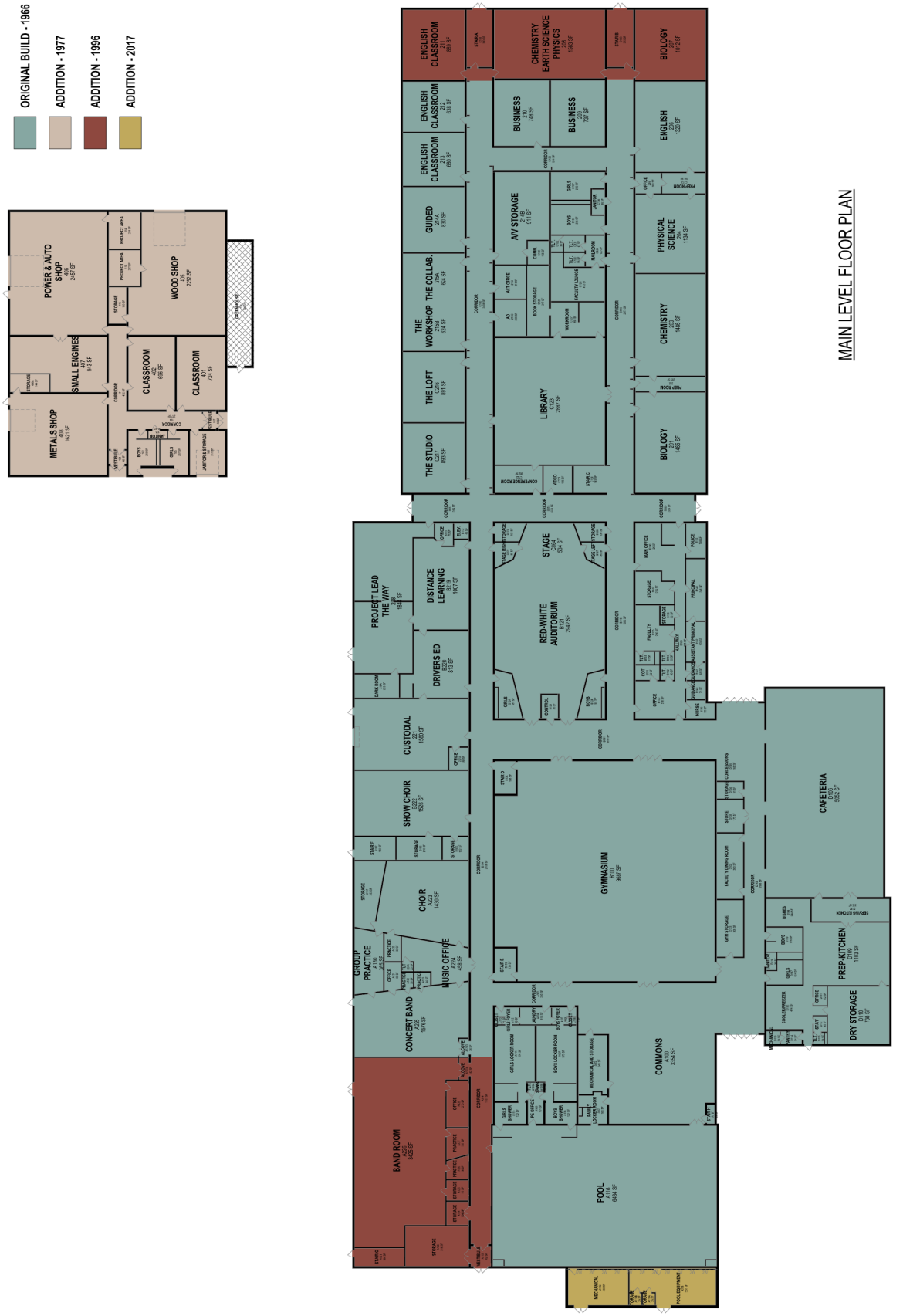
Facility Assessment - BUILDING SUMMARY

Project/Job: Medford Area Senior High School Date: 06/19/2019
Owner: Medford Area Public School District Completed By: NWH

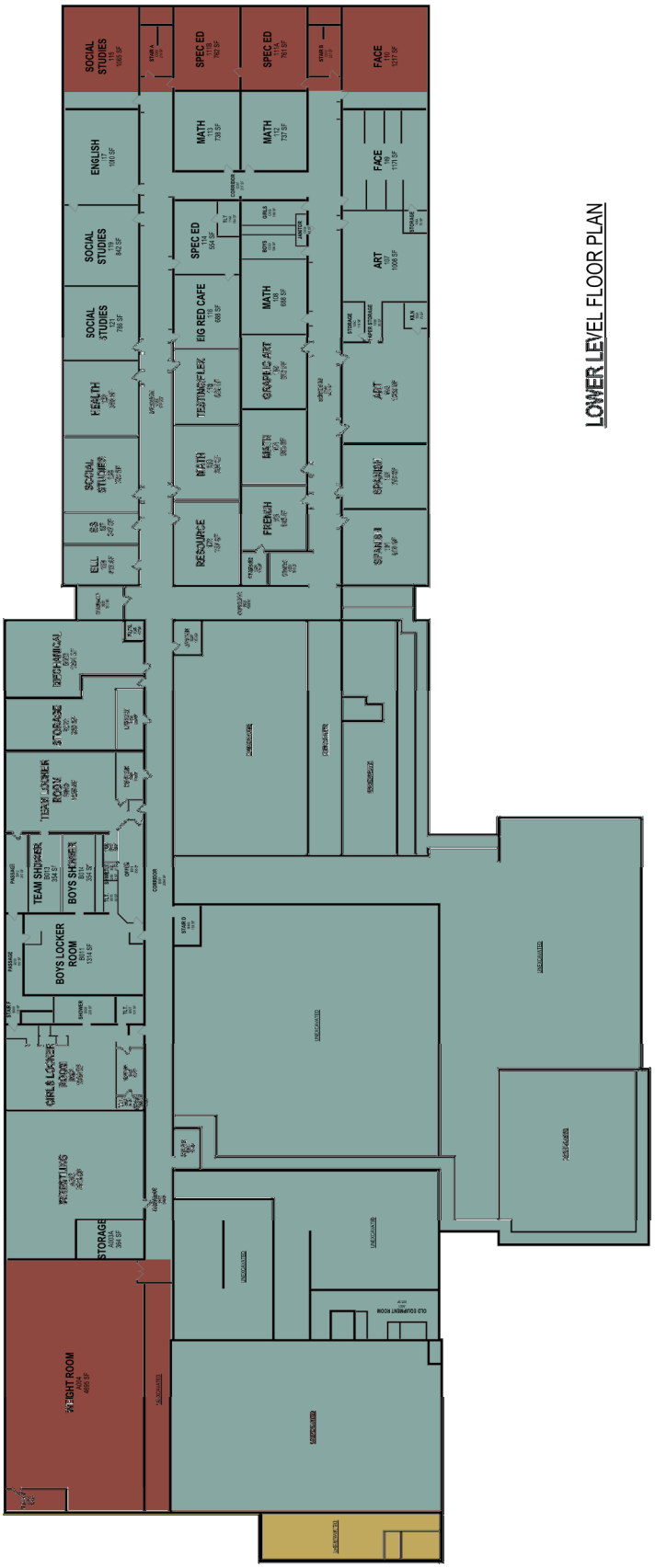
A. OVERALL BUILDING SUMMARY	
Facility Location:	*1015 W. Broadway Ave.* *Medford, WI 54451*
Original Construction:	*Original Construction: 1966/1967*
Additions/Renovations:	*Building Additions in 1996, 2017*
Building Statistics:	*Building Footprint = 101,000 SF* *Building Gross Square Footage =153,800 GSF* *Site Parking Spaces = 437 Spaces* *Site Area = 55.65 Acres* *High School Area = 37.20 Acres* *Ag Barn =2.72 Acres* *New Property = 23.81 Acres*
Number of Levels:	*Two Levels - One above and One Below* *Classrooms and Athletic Facilities are Below Grade*
Building Overview/Usage:	*9th - 12th Grade Levels* *Current Year Enrollment: 600*
Construction Type (Structural):	*1967 Building* *Bearing Block (CMU) Walls* *Poured Concrete Slab* *Steel Roofing Structure* *1997 Building* *Bearing Block Walls* *Precast Plank Flooring (2-story Area Only)* *Steel Roofing Structure*
Construction Type (Exterior):	*1967 Building* *Brick Masonry Veneer* *Stone Around Windows* *Aluminum Windows - Replaced in 2002/2006* *EPDM Roofing* *2001 Building* *Insulated Precast Concrete Panels* *Aluminum Windows* *EPDM Roofing*

**Ag Barn was not part of this facility assessment.

****ADA was not part of this facility assessment.**


ORIGINAL BUILD - 1966
ADDITION - 1977
ADDITION - 1996
ADDITION - 2017
MAIN LEVEL FLOOR PLAN

ORIGINAL BUILD - 1966
ADDITION - 1977
ADDITION - 1996
ADDITION - 2017



LOWER LEVEL FLOOR PLAN

SECTION 03

FACILITY ASSESSMENT REVIEW & CAPITAL MAINTENANCE SUMMARY

MEDFORD AREA SENIOR HIGH SCHOOL
Facility Assessment

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Facility Assessment - SITE

Project/Job: Medford Area Senior High School
Owner: Medford Area Public School District
Date: 6/19/2019
Completed By: NWH

SITE			
Site Concrete		*Recommendation*	*Priority*
Site Sidewalk	*Sidewalk around the building is in fair to poor condition.*	Front entrance sidewalk needs to be replaced.	Level 2
Asphalt		*Recommendation*	*Priority*
North Asphalt Lot	*Lot is in poor condition. This lot is heavily used and appears to have been patched in some areas.*	Replace asphalt parking lot.	Level 2 .
West Asphalt Lot	*Lot is in fair to poor condition. Some of the asphalt has been replaced over the years.*	Replace asphalt as needed.	Level 2 .
East Asphalt Drive	*Drive is in poor condition. Drive is heavily used and recieves a lot of water run off.*	Replace asphalt drive.	Level 2 .
South Asphalt Drive	*Drive is in fair condition. This appears to be mainly for student drop off.*	Joint Fill and Seal Drive	Level 1 .
Landscaping		*Recommendation*	*Priority*
Grading/Storm Water	*The grading and storm water management system is in fair condition. The area around the 2-story education wing is damp with standing water.*	Re-grade and add draintile to get moisture/water away from the building.	Level 2 .
Athletic Fields		*Recommendation*	*Priority*
Baseball Field	*There are drainage issues in outfield that will need to be addressed.*	Re-grade and add draintile, if necessary, to correct issues.	Level 3
Baseball and Softball Facilities	*The softball dugouts are heaving and the baseball dugouts are undersized.*	Address heaving issues and consider expansion/replacement.	Level 3
Track/Football Field	*Recently updated. Looks great!*	No recommendations.	None given
Tennis Courts	*The finish on the tennis courts is peeling and needs to be addressed.*	Patch or re-finish tennis courts.	Level 1
Site Fencing	*Few areas appear to be leaning or sagging and heaving.*	Repair as needed.	Level 2 & 3
Exterior Signage		*Recommendation*	*Priority*
Monument Sign	*The current monument sign at the entrance of the high school is in poor condition.*	Replace or repair.	Level 2

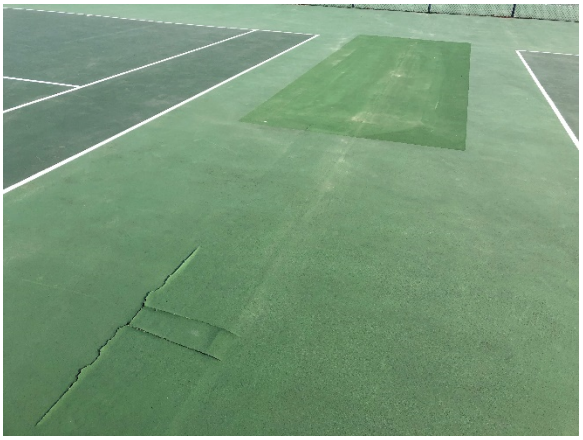
SITE

Front entrance sidewalk is damaged and uneven in a few spots.

North parking lot.

North parking lot. Several areas have been patched in the past. Asphalt is in poor condition.

West parking lot asphalt is in poor condition and crumbling.



Tennis courts have been repaired in the past from the surface delaminating from the base. It continues to be an issue every year.

The existing monument sign is showing signs of age. It either needs to be repaired or replaced.

Facility Assessment - ENVELOPE

Project/Job: Medford Area Senior High School
Owner: Medford Area Public School District
Date: 6/19/2019
Completed By: NWH

ENVELOPE			
Exterior Wall System		*Recommendation*	*Priority*
Masonry Brick Veneer - 1967	*Brick veneer is in good condition, with mortar cracking in localized areas.*	Tuckpoint & caulk exterior in localized areas.	Level 2
Masonry Brick Veneer - 1967	*At the southeast corner of the pool, the exterior corner above the roof needs to be addressed. Appears moisture is coming inside via these cracks.*	Remove existing brick and re-install with an expansion joint to allow for movement.	Level 1
Stone Banding Around Windows - 1967	*Stone banding around windows in overall good condition. Caulking is required around joints and minor tuckpointing.*	Tuckpoint exterior in localized areas and re-caulk. Replace damage stones or make sure are water-tight.	Level 2
Masonry Brick Veneer - 1996	*Brick veneer is in good condition, with mortar cracking in localized areas.*	Tuckpoint & caulk exterior in localized areas.	Level 2
Masonry Brick Veneer - 1996	*Brick veneer is in good condition, with mortar cracking in localized areas.*	Tuckpoint & caulk exterior in localized areas.	Level 2
Exterior Windows & Doors		*Recommendation*	*Priority*
Windows	*Aluminum windows on both sections of the building are in good condition. Seals on a few windows need to be addressed. Caulk joints in certain locations are failing.*	Caulk and address seals on windows.	Level 2
Exterior Doors - Hollow Metal	*Multiple hollow metal exterior frames remaining from the original building are rusting. Main entrances in 1967 building are hollow metal.*	Remove and replace door and frame. Switch main entrances with aluminum frames and doors	Level 2
Exterior Entrances - Aluminum	*Aluminum entrances are in fair condition and were installed on the 1996 additions only. The east curtainwalls are starting to leak and may be sized too small.*	Replace curtainwall with new.	Level 4
Access Control	*Entrances are secured and have key fob access. Entrance to High School does not include a secure entry through the main office.*	Architectural option, not capital maintenance Item.	None given
Roofing		*Recommendation*	*Priority*
EPDM Roofing	*Roofing is in good condition. Medford has a great handle on the condition of their roofs. They have been replacing as needed.*	Replace roofing at the end of its life span. Maintain current replacement methods, timelines, and budgeting.	Level 2-4 priority, based on age of roof.
Roofing Access	*All roofs have access.*	No recommendations.	None given
Flashing	*Flashing at the gym is original and is in fair condition.*	Have certified roofing contractor review flashings and address as needed.	Level 2

ENVELOPE

Exterior caulk joint is tearing away from exterior brick and needs to be replaced.

Exterior caulking is missing at the stone band around the gym exterior wall.

Exterior hollow metal door frame rusting at the bottom.

The roofs are in good shape; however, some roofs are nearing their life span (20 years).

Corner of pool building is cracking and the inside shows signs of water intrusion.

Exterior glazing panel is foggy and should be replaced. A few other window gaskets have come loose and need to be addressed.

Exterior brick's mortar joint is wearing away. Tuckpointing is required.

Facility Assessment - INTERIORS

Project/Job: Medford Area Senior High School
Owner: Medford Area Public School District
Date: 6/19/2019
Completed By: NWH

INTERIORS			
Casework & Trim		*Recommendation*	*Priority*
Casework - 1967	*The majority of the original casework is solid wood and in good shape.*	Continued maintenance.	None given
Casework - 1996	*The majority of this casework is plastic laminate and in fair condition. The band casework is in good condition.*	Replacement of casework in FACE, Art, and science lab islands.	Level 2 & 3
Interior Doors, Frames, Hardware		*Recommendation*	*Priority*
Doors - 1967	*Wood doors and steel frames. Frames are in fair condition. Wood doors are showing their age. Hardware was recently replaced.*	Replace the doors and paint the frames.	Level 2 & 3
Doors - 1996	*Wood doors and steel frames. Frames are in fair condition. Wood doors are showing their age. Hardware was recently replaced.*	Replace the doors and paint the frames.	Level 2 & 3
Overhead Door	*No issues reported.*	No recommendations.	None given
Wall Surfaces		*Recommendation*	*Priority*
Wall Surfaces	*Walls throughout 1967 building are painted CMU. The 1996 addition is a combination of CMU and drywall with vinyl wall coverings.*	Upgrade finishes as needed. Some of the vinyl joints are peeling and need to be repaired. Painting of the entire building has been accounted for.	Low
Bathrooms	*Ceramic tile is installed throughout bathrooms and in fair condition. Most of the partitions have been replaced. ADA compliance has been accounted for in a few bathrooms. ADA compliance has not been reviewed as part of this assessment.*	Upgrade finishes as needed.	None given
Ceilings		*Recommendation*	*Priority*
Ceiling Systems - Lower Level	*2x2 Acoustical Ceilings are installed throughout the entire lower level. The ceilings are showing their age with chipped corners, sagging tiles, rusty grid, etc.*	Ceilings shall be replaced on a rotation and on an as needed basis.	Level 3
Ceiling Systems - Main Level	*The main level ceiling is original to the 1967 builidng with exposed wood beams and an acoustical material directly underneath structure. Overall this ceiling is in fair condition. There are portions of the main level that have acoustical ceilings that are in fair condition.*	No recommendations for the ceilings with exposed wood beams. Remaining ceilings shall be replaced on a rotation and on an as needed basis.	None given

Flooring		*Recommendation*	*Priority*
Terrazzo Flooring	*Terrazzo flooring is installed throughout the original 1967 building corridors and is in good condition. There has been some cracking at localized areas.*	No recommendations.	None given
Vinyl Flooring	*Vinyl flooring (VCT) is installed in both newer and older areas. There are 9x9 tiles in numerous rooms. 9x9 tile is indicative of asbestos containing material.*	Abate remaining 9x9 tile and mastic and install new flooring on a yearly rotation and on a as needed basis.	Level 3 & 4
Carpet	*Carpet is installed throughout the administrative areas, offices, and library. Carpet in general appears to be worn.*	Rotate carpet replacement on an as needed basis.	Level 3 & 4
Gym Floors	*Wood floor is in good condition.*	Continue regular maintenance.	Level 1
Ceramic Tile	*Ceramic tile throughout the locker rooms, showers and bathrooms is in good condition.*	No recommendations.	None given
Epoxy Flooring	*Epoxy flooring in the STEM area is in good condition.*	No recommendations.	None given
Elevators		*Recommendation*	*Priority*
Lift	*The lift installed in the lower level by the weight rooms is in good condition.*	Continue regular maintenance and inspection.	None given
Elevator	*The elevator serving the building is in good condition.*	Continue regular maintenance and inspection.	None given
Toilet Partitions & Accessories		*Recommendation*	*Priority*
Toilet Partitions	*Floor mounted toilet partitions throughout appear to have been replaced in the recent past. A few toilet partitions in the locker room area appear to be original.*	Replace the remaining original toilet partitions.	Level 2
Toilet Accessories	*Toilet accessories in older restrooms are damaged in some areas.*	Replace/repair accessories as necessary.	None given
Miscellaneous Finishes		*Recommendation*	*Priority*
Interior Signage	*No issues reported.*	No recommendations.	None given
Kitchen Equipment	*Various pieces of equipment are at the end of its useful life.*	Replace equipment as needed.	Level 2
Bleachers	*Bleachers in the gym are original and still in good working condition.*	Replace as desired. Continue regular maintenance and inspections.	None given
Scoreboards	*No issues reported.*	No recommendations.	None given
Lockers	*Lockers in the locker rooms are at the end of their life span. Lockers in the education wing are original and inadqueate for today's student.*	Replace lockers.	Level 2-4

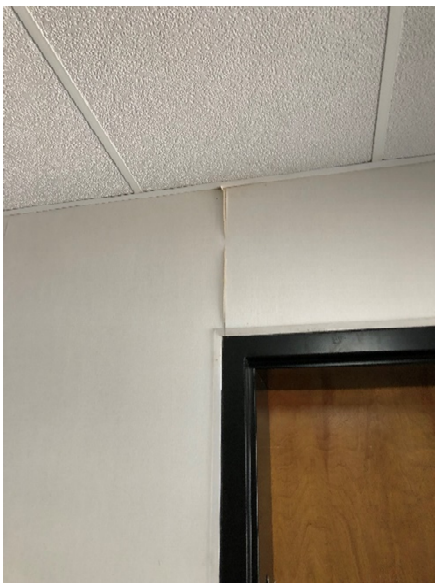
INTERIORS

The original wood casework is in good condition and should be maintained.

The casework installed in the 1996 addition and art classrooms are chipped and damaged in areas.

The interior door frames throughout the building are hollow metal frames and are in fair to good condition.

The interior wood doors are showing signs of their age and use. This door like many others have chips and scratches in them.

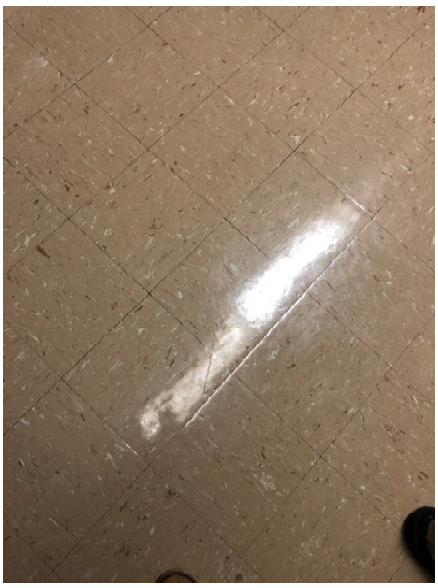


This picture shows the seam coming apart on the vinyl wall covering in the 1996 addition.

Ceilings on the lower level are mainly 2x2 acoustical ceiling tile and grid. The tiles are sagging from humidity and are chipped and worn.

Bathrooms in the school are in good condition with glazed block walls and ceramic tile floors. Nearly all toilet partitions have been updated over the years.

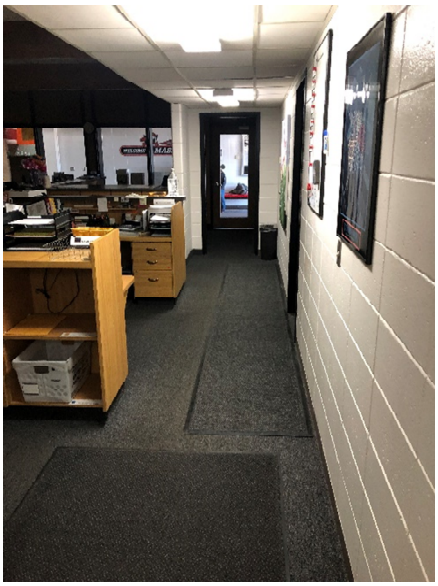
Ceilings on the main level with exposed wood beams.



The majority of the flooring in the classrooms is 9x9 vinyl tile flooring.

Quarry tile in the kitchen is in good shape.

Carpet in the LMC and support spaces are showing signs of wear.



Carpet in the office/admin area are showing signs of wear.

Terrazzo flooring throughout the corridors and cafeteria are in good condition.

The epoxy flooring in the STEM area is in good condition.

Another photo of the terrazzo flooring and exposed wood beam ceilings.

A few classrooms on the main level have received new flooring throughout the years.

The rubber flooring in the weight room area is in good condition.

The wood bleachers are in good working condition, however, do not have handrails in the walkways. Add handrails as part of regular maintenance if desired.

Boys & girls locker rooms lockers are in poor condition and showing signs of major wear.

Pictures of the exposed wood deck and beams in the gym.

Team locker rooms are in poor condition. Signs of rust and wear are prominent.

Concrete reinforcing part of the main level floor structure is exposed and in need of repair.

Facility Assessment – SYSTEMS

Project/Job: Medford Area Senior High School
Owner: Medford Area Public School District

Plumbing Equipment – Water Heaters

- There are two water heaters serving the main high school building, and one serving the technology building. There is also an indirect heater (installed in 2010), that uses the boiler water to heat the water in all three units in the winter months only. The two water heaters serving the main high school building were installed in 2006, and the water heater serving the tech shop building is original to the building having been installed in 1977. There are also two 100-gallon water heaters in the kitchen. One is 20 years old, and the other is 9 years old.
- Condition of water heaters: the water heater serving the technology building is well past its service life. The two water heaters serving the main building are in fair condition.
- Water heater life expectancy: 10 – 15 years with good maintenance.
- Remaining life expectancy: 0 – 2 years for the main building units, 0 years for the technology building unit, 0 years for one of the 20-year-old kitchen water heater, and 1 – 2 years for the 9-year-old kitchen water heater. 2 – 5 years for the indirect water heater.

Deficiencies:

- Bradford White eF water heater tank failure.
- Corrosion of the water heater tank has resulted in water leakage from the tank.
- Two main building water heaters are near the end of their service life.

Recommendations:

- Replace two of the main building water heaters with new units, and continue the use of the indirect water heater.

- Replace the technology building water heater.
- Replace the two kitchen water heaters.

Domestic Water Distribution – Piping, Fittings, Valves, Insulation, Etc.

- The original domestic water distribution system was constructed out of galvanized steel piping and galvanized steel fittings. The domestic water system provides hot and cold water to all plumbing fixtures and equipment.
- **Condition of the domestic water distribution system:** the galvanized piping of the domestic water system is in poor condition. The piping displays signs of leakage, corrosion, and failure of valves. The piping is partially insulated in some areas; with most areas having insulation that is severely water damaged, as well as thoroughly covered with mold.
- **Domestic water system life expectancy:** galvanized piping has a life expectancy of +/- 40 years.
- **Remaining life expectancy:** 0 years.

Deficiencies:

- The entire domestic water distribution system is failing; resulting in increased maintenance, shutdowns of the system, and replacement of parts.

Recommendations:

- Replace entire domestic water distribution piping system with either Type L copper, or CPVC piping. Include insulation on piping, fittings, and valves.

Heating Equipment – Boilers

- There are three boilers currently serving the main building:
  - **Boiler #1** is a DeDietrich Model C4-GO-30, max output of 6,206 MBTU/HR, with a PowerFlame Burner Model C4-GO-30, installed in 2000.
  - **Boiler #2** is a Buderus Model GE615/16 with a max output of 3,982 MBTU/HR, installed in 2003.
  - **Boiler #3** is a Buderus Model SB615/185, max output of 612 MBT/HR, with a PowerFlame Burner Model J15A-10, located in the Pool Area, and installed in 2004.
- **Condition of boilers:** Boiler #2 leaks upon startup, the DeDietrich boiler is in fair condition, other units are in fair condition.
- **Boiler life expectancy:** 20 – 25 years with good maintenance.
- **Remaining life expectancy:** 5 – 6 years for the DeDietrich unit, 7 – 10 years for the Boiler #3, and 0 years for Boiler #2.

Deficiency:

- All three boilers are closing in on the end stage of their life expectancy, with Boiler #2 exhibiting leaking issues.

Recommendations:

- Continue to monitor and provide maintenance utilizing vendor of choice. Plan to replace the DeDietrich unit 2024 – 2025, Boiler #3 between 2026 – 2029, and recommend replacing Boiler #2 as soon as possible.
- Another option would be to look at utilizing multiple smaller capacity boilers to reduce the demand on individual units, and to also extend service life.

Heating Equipment – Circulation Pumps

- The base mounted circulating pumps installed are Bell & Gosset U4BC with a 15HP motor designed to deliver 412GPM at 65 feet of head. There are also two in-line Taco pumps as well. Regarding the two base mounted circulating pumps, one pump runs as a primary circulator, and the second pump only runs if the lead pump fails. These two pumps were installed in 2010. The two in-line Taco pumps were installed in 1996.
- Flow measuring devices exist on the 1996 piping loop; however, the original piping mains do not have flow measuring devices and flow cannot be directly verified.
- **Condition of pumps:** the two based mounted pumps are in good condition, and the two in-line pumps are in fair condition.
- **Pump life expectancy:** 20 years with good maintenance.
- **Remaining life expectancy:** 0 – 5 years for the in-line pumps, and 8 – 10 years for the base mounted pumps.

Deficiency:

- The inline Taco pumps are nearly 25 years old and have exceeded their service life.

Recommendation:

- Replace both in-line circulation pumps with variable frequency drive in-line pumps. Install pressure sensors in heating piping throughout the building for control of pumping capacity. Connect controls to school DDC system.

Heating Distribution – Pipes, Fittings, Valves, Insulation, Etc.

- The original heating pipe circulation system was constructed out of black steel piping and cast iron fittings.
- The heating piping system supplies heating water to the unit ventilators and cabinet heaters throughout the building.
- **Condition of heating distribution:** the heating distribution system is in fair condition.
- **Heating distribution life expectancy:** 30 – 50 years
- **Remaining life expectancy:** 10 + years potentially

Deficiencies:

- Piping displays signs of leakage and corrosion in areas.
- Piping system is partially insulated, with some areas having incorrect insulation installed on them, and/or damaged insulation.

Recommendations:

- Replace sections of heating hot water piping that are corroded and/or leaking.
- Remove and replace damaged pipe insulation per specifications and Wisconsin Energy Code.

Ventilation Equipment – Exhaust Fans

- The new addition to the high school has individual bath fans serving the bathrooms and locker rooms. The original portion of the high school is all connected to one central exhaust system without any inline fans included.
- Condition of exhaust fans: the exhaust/bath fans in the Lower Level Locker Rooms are in good condition. The exhaust system on the original side of the school is in poor condition, with several areas experiencing poor exhaust ventilation.
- Exhaust fan life expectancy: ventilation fans can last 20 – 25 years with good maintenance.
- Remaining life expectancy: 0 – 5 years for the exhaust fans in the original building.

Deficiencies:

- The main exhaust fans in the original portion of the high school have exceeded their service life and should be replaced.
- Bathrooms and locker rooms in the original part of the high school do not have adequate exhaust ventilation. These areas are all connected to the main central exhaust system.

Recommendations:

- Replace main exhaust fans as they have exceeded their service life.
- Install individual bath fans to service the bathrooms and locker rooms of the original portion of the school, as well as inline fans to help the central exhaust system provide adequate exhaust ventilation.

Ventilation Equipment – Unit Ventilators

- The unit ventilators throughout the high school were replaced in 2017 and serve various areas throughout the building.
- **Condition of unit ventilators:** unit ventilators are in excellent condition.
- **Unit ventilator life expectancy:** 15 – 20 years with good maintenance.
- **Remaining life expectancy:** 13 – 18 years.

Deficiency:

- The unit ventilators installed in the Lower Level Team Room and locker rooms are new; however, they draw their fresh air from the corridor (original connection). This setup is not providing adequate fresh air to enter these spaces; thus, leaving these areas with stagnant, musty air.

Recommendation:

- Connect new air intake ductwork to the unit ventilators, run ductwork up the wall, and connect to the fresh air intakes located on the roof. This will pull fresh air and better ventilate these spaces.

Ventilation Distribution – Ductwork

- Ductwork distribution is made of galvanized sheet metal.
- Interior of ductwork was observed to be dirty.
- Duct insulation is missing and/or damaged in several areas.
- **Condition of ductwork:** ductwork condition ranges from fair to poor, with corrosion showing up in multiple areas.
- **Ductwork life expectancy:** 20 – 25 years with good maintenance.
- **Remaining life expectancy:** 0 – 5 years.

Deficiencies:

- Portions of galvanized ductwork are starting to exhibit signs of corrosion.
- Duct insulation is incomplete in several areas, as well as damaged.
- Duct insulation is of insufficient thickness in several areas.

Recommendations:

- Further examine galvanized ductwork and replace damaged and/or corroded sections.
- Remove existing damaged insulation, as well as the improper insulation, and replace with 2" 3# rigid fiberglass insulation with FSK jacket.
- Complete insulation install per specifications and Wisconsin Energy Code.

Electrical System – Panels and Gear:

- Main switch board panel is still the original unit and remains in use.
- New panelboards for the pool equipment, mechanical equipment room, and the mechanical/storage space were installed in 2017.
- **Condition of panels and gear:** the newly installed panels from 2017 are in excellent condition, and the existing main panel is in fair condition.
- **Panels and gear life expectancy:** Standards generally recognize that the life expectancy of electric panels is 25 – 30 years.
- **Remaining life expectancy:** 25 years plus for the newer panels, and 0 years for the existing main panel.

Deficiencies:

- The original main electrical panel is over 50 years old, and well past its service life.
- Maintenance is struggling to find replacement parts for the panel when issues arise.

Recommendations:

- Recommend replacing the original main switch board panel soon, and having a licensed electrician perform a review of all contact points for potential issues and subsequent repairs.

Lighting:

- Majority of the building lighting is fluorescent tube lighting. The lower level is comprised of mainly lay in type fixtures.
- The upper level lighting is mainly surface mounted fixtures.
- Some lighting in the lower level classrooms has been upgraded to LED.

Recommendations:

- Recommend replacing the existing lighting with LED fixtures for energy savings and better-quality lighting.

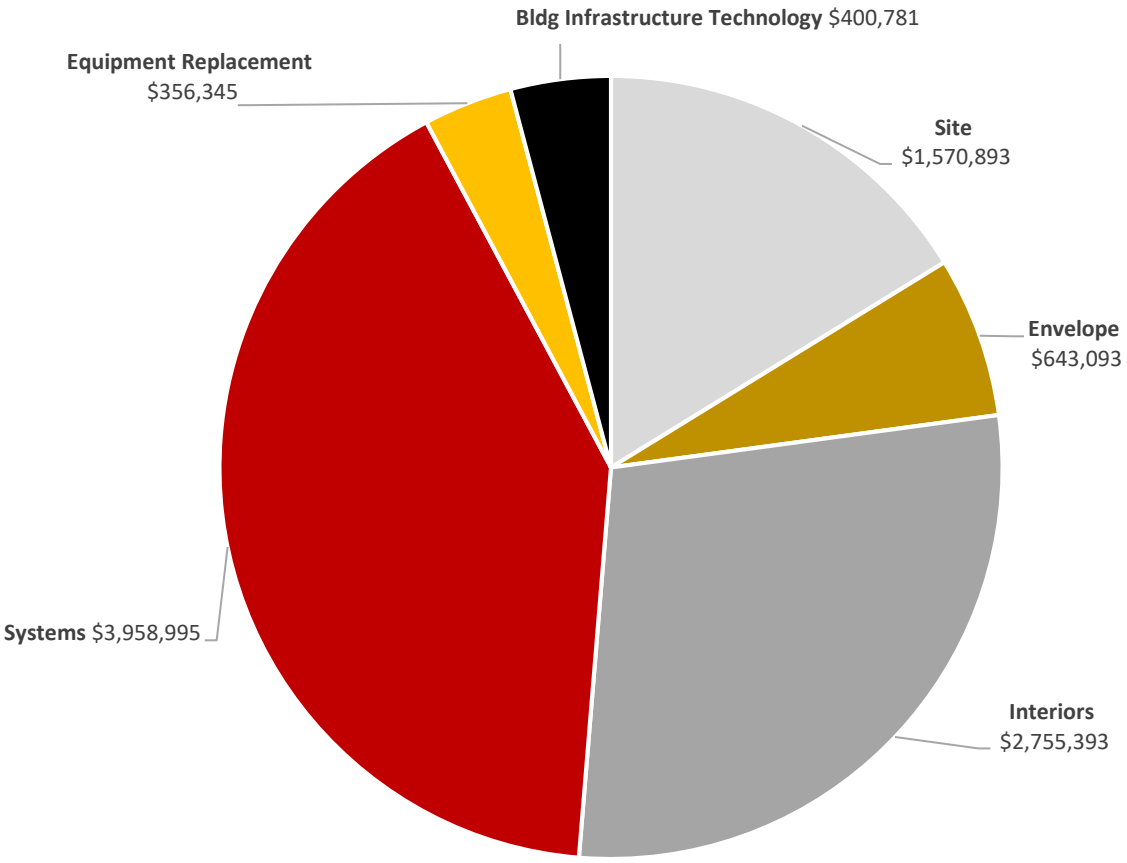
Miscellaneous Conditions:

- Kitchen hood and dishwasher hood were replaced in 2017, along with DDC control upgrades.
- Boiler control devices were upgraded to DDC controls and tied into the BAS in 2017.
- New unit ventilators were installed throughout the building in 2017, along with new DDC controls, and tied into the BAS.
- Two new RTU's serving the Auditorium space installed in 2017. These are DCV type, with new thermostats and CO sensors, and tied into the Siemens BAS.

TOTAL MAINTENANCE COST BY CATEGORY

Medford Area Senior High School

Site	$1,570,893
Envelope	$643,093
Interiors	$2,755,393
Systems	$3,958,995
Equipment Replacement	$356,345
Building Infrastructure Technology	$400,781
TOTAL	$9,685,500*

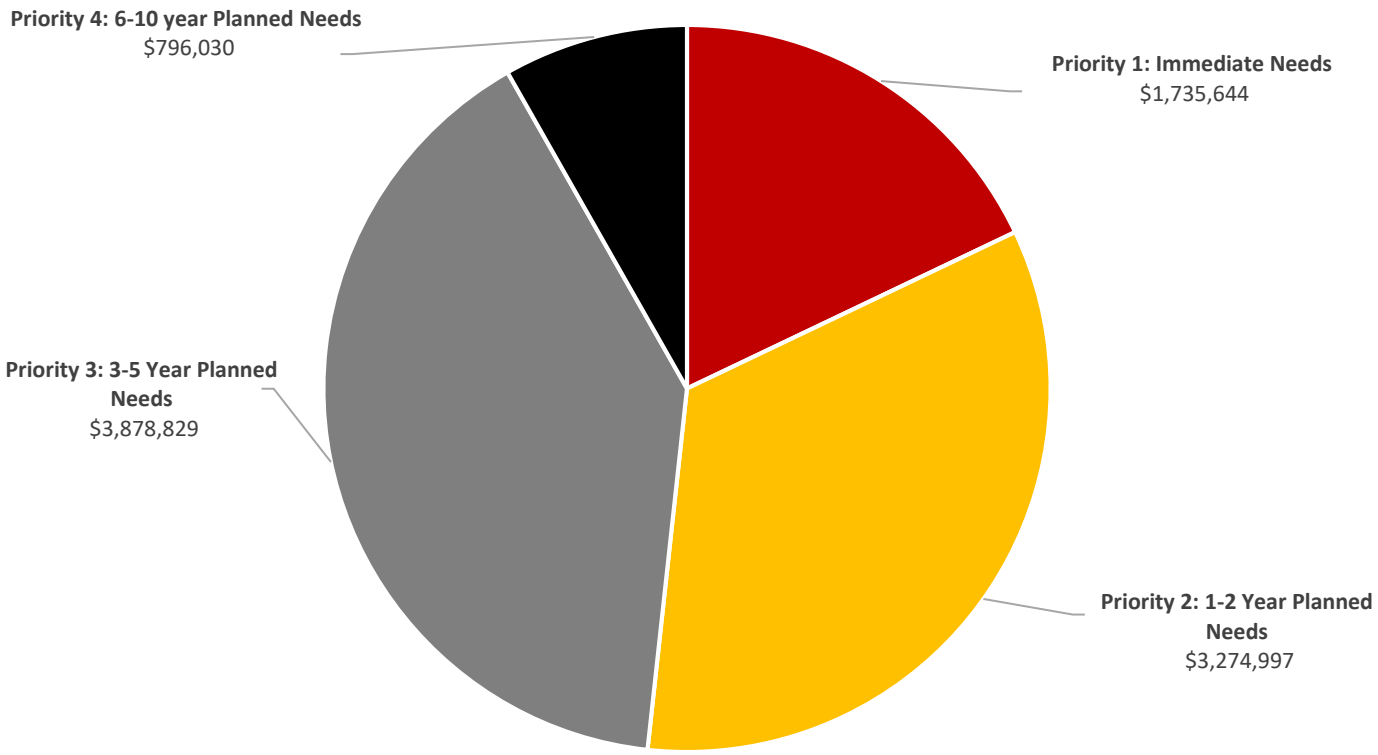


*Costs assume J.H. Findorff & Son Inc. is managing portions of the work.

TOTAL MAINTENANCE COST BY PRIORITY

Medford Area Senior High School

Priority 1: Immediate Need	$1,735,644
Priority 2: 1-2 Year Planned Needs	$3,274,997
Priority 3: 3-5 Year Planned Needs	$3,878,829
Priority 4: 6-10 Year Planned Needs	$796,030
TOTAL	$9,685,500*



*Costs assume J.H. Findorff & Son Inc. is managing portions of the work.

TOTAL MAINTENANCE COST BY CATEGORY – DETAILED

Medford Area Senior High School

Site	
o Asphalt Paving	$1,009,813
o Athletics	$368,715
o Site Earthwork	$156,237
o Monument Sign	$20,379
o Pedestrian Paving	$15,749
TOTAL SITE	**$1,570,893***
Envelope	
o Exterior Walls	$6,470
o Exterior Windows	$110,466
o Exterior Doors	$54,343
o Roofing	$471,814
TOTAL ENVELOPE	**$643,093***
Interior	
o Wall Finishes	$674,700
o Ceiling Finishes	$514,271
o Floor Finishes	$821,642
o Furnishings	$744,780
TOTAL INTERIOR	**$2,755,393***
Systems	
o Plumbing	$573,249
o HVAC	$783,667
o Electrical	$2,602,079
TOTAL SYSTEMS	**$3,958,995***
Equipment	
o Kitchen Equipment	$248,828
o Laundry Equipment	$11,387
o Athletic Maintenance Equipment	$36,746
o Educational Equipment	$15,300
o Misc. Equipment	$44,084
TOTAL EQUIPMENT	**$356,345***
Building Technology Infrastructure	
o Infrastructure	$400,781
TOTAL BUILDING INFRASTRUCTURE	**$400,781***

*Costs assume J.H. Findorff & Son Inc. is managing portions of the work.

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SECTION 04

EDUCATIONAL SPACE ANALYSIS

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Educational Space Analysis

INTRODUCTION

This report is prepared to provide an objective analysis to determine the building capacities for the Medford Area Senior High School facility.

This analysis has three sections

- Overview to outline the process and assumptions in determining building capacity
- Building/Program Capacities worksheets and summary
- Building floor plans to identify spaces

We appreciate the opportunity to have provided this analysis on building capacity.

OVERVIEW

Through interviews with building Principals, select staff, building tour and space utilization data provided, this capacity analysis provides a quantitative measure of spaces currently located within each school to support current and potential programming. This analysis includes Medford Area Senior High School facility of the Medford Area Public School District.

Grade	Maximum Students Per Class	Optimal Student Per Class
High School	26	22
Lab	24	20

Grade	Maximum Students Per Class	Recommended Classroom Square Feet	Square Feet Per Student
Ninth	26	800	31
Tenth	26	800	31
Eleventh	26	800	31
Twelfth	26	800	31
Lab Spaces	24	1,400	50

There are three questions that need to be answered in order to determine a buildings capacity. These questions are:

1. Is the existing capacity adequate to service the needs of the district today and in the future? If not, what are the additional space needs required? (Capacity)
2. Are there any building space deficiencies that should be addressed immediately? (Deficiency)
3. What facilities will be required in order to accommodate visionary programs? (Vision)

For the specific scope requested by the School District we will be analyzing only the first question in regard to capacity. The contents of this analysis on building capacity provided within will assist the District to address the second and third question as related to space deficiency and visionary programs within each building.

It will be the District's objective to determine how each building is to function and service the students that attend their assigned school and the uniqueness that each building has provided.

Current enrollment has been identified for reference, and does not factor in to any capacity calculations, but has been identified to determine if a building is currently over or (under) capacity.

The method of calculating capacity has been accomplished by two scenarios; **"Target Class Size Capacity"** is the point where the building is functioning optimally as an educational facility. This is at the point where the District should be planning and preparing for the future of the facility, or other facilities within the District, before reaching the identified maximum class size capacity. The **"Maximum Class Size Capacity"** is the point where a building is at the maximum student count to run effectively and efficiently. The District has identified that student count is constantly monitored throughout the year, and also has been projected

on an annual basis.

The analysis incorporates an operational efficiency based upon the grade levels that occupy each building which are as follows: 90% is considered to be the maximum capacity level to be optimal at the elementary school level for optimum building utilization; 85% is considered to be maximum capacity level to be optimal at the middle school level for optimum building utilization; and 80% is considered to be maximum capacity level to be optimal at the high school level for optimum building utilization based on reputable educational planning guidelines. These utilization factors are used to compensate for scheduling difficulties and variations in class size. Operating a facility at or below these levels allows for the availability of time and space in the building to support teacher preparation and tutoring activities, the flexibility to accommodate scheduling conflicts between events and classes, and unscheduled special assistance to individual or small groups of students.

Area Space Formula

The "Area Space Formula" is a method of calculating each individual classroom space student capacity based upon the actual space dimensional area of a classroom space. In the event that a classroom does not meet educational space guidelines but is utilized for instruction, the student capacity is reduced based upon a smaller physical dimensional area. This calculation would identify that a small classroom space has a lower student capacity than a large classroom space which would accommodate a greater student capacity

High School Capacity

Assessing the Capacity Based on the Number of Rooms and the Maximum Class Size.

The method this analysis will be based upon is assessing the Capacity on the current and potential change from current use, the number of rooms that are adequate to be classrooms. The number of classrooms is then calculated by the number of students to occupy the room, which has been determined by the Districts Class Size Guidelines. The usage factor is determined by the actual use of a classroom, divided by the number of periods that the building operates within an instructional day. The resultant calculation is then multiplied by 80% (which is a planning guideline for the student station utilization factor as explained above). Each classroom or instructional space that has been assigned for student credit will be factored in to the calculation. This method will determine how many students are in an assigned instruction space at any one period of the day. After a period has ended, the students rotate to another instructional space. The periods that each instructional space is used will vary depending upon the administrations scheduling of the spaces, as will the optimal class size number, which is dependent upon the acceptable number of students assigned.

Optimal Class Size Formula:

Periods used / Periods in day = Usage Factor %

*Number of Rooms * Usage Factor % * Class size =*
*Capacity * 80% = Optimal Capacity*

Maximum Class Size Formula:

Periods used / Periods in day = Usage Factor %

*Number of Rooms * Usage Factor % * Class size =*
Maximum Capacity

Area Space Formula:

Maximum Student per Class /
Recommended Classroom Area (square feet) =
Square Feet Area per Student

SPACE DEFICIENCIES

Are there any building space deficiencies that should be addressed? The scope of this analysis does not identify spaces that are not adequate based upon classroom size, but the spaces identified as classrooms, and potential change from current use have been verified that they would be adequate for the intended instruction. Spaces identified as; Specials, Special Education, or other designation have not been assessed to determine if they are sized adequately for the purpose of their use. An example would be to determine if the gymnasium is the appropriate size for the various physical activities that accommodate the number of students using the space. Another example is to calculate if the cafeteria capacity for the number of students that are assigned a lunch period. These examples for review of spaces were not intended to be part of this analysis.

ANALYSIS ASSUMPTIONS

PRA has made several assumptions in order to create the capacity study below. These assumptions include:

- One teacher per teaching station (typically this means one teacher per room).
- Schedules of classes, usage of rooms and the basic curriculum will remain the same.
- Identified Potential Classroom allocation, was verified by the building Principal.

The building capacities derived and presented in this study are predicated on very specific methods of program delivery that have been adopted by the District. These methods of program delivery are linked to specific academic and non-academic goals and reflect community expectations.

This study does not determine capacity by utilizing building or fire code "life safety" building capacities, nor by merely counting the number of rooms per site and multiplying by an average student to teacher ratio. Those methods, while useful insofar as they provide an upward limit for capacity, are very limited in their utility in providing a practical capacity based on current program delivery. In short, the School District Board of Education and community expect that the program and delivery model will largely drive the use of building space, not that building space will dictate the program model and delivery. Therefore, the following assumptions are embedded in the derivation of the building capacities:

High School

- 8 periods of classes in an academic day
- Regular classroom space is dedicated to Bilingual / ESL education
- Regular classroom space is dedicated to special education
- Capacities are based on 80% room usage efficiency.
- Teachers have at least one prep period in their classroom thus taking that classroom out of use for that period.
- Some classes have specialized space needs and thus cannot be placed in just any regular classroom. This includes such classes as art, technical ed and chemistry labs for example.

SOURCES

The goal of this analysis was to measure enrollment capacity of the schools within the School District relative to generally accepted standards of square feet per student and student station utilization factors. The utilization factors used in this report are derived from not only our in-house knowledge of programming educational facilities but from nationally recognized experts such as Basil.

Castaldi's 'Educational Facilities', resources available from 'The Little Institute for School Facilities Research' and from resources available through CEFPI (The Council of Educational Facility Planners, International).

Castaldi, B., Educational Facilities; Planning, Modernization, and Management, 1994. Fourth Edition, Allyn and Bacon Publishers, 160 Gould Street, Needham Heights, MA 02194.

The School Design Primer, The Little Institute for School Facilities Research, 1996. Contact The Little Institute for School Facilities Research, 5815 Westpark Drive, Charlotte, NC 28217.

Guide for Planning Educational Facilities, The Council of Educational Facility Planners International, 1991. Contact CEFPI at 8687 E. Via de Ventura, Suite 311, Scottsdale, AZ 85258-3347.

National Clearinghouse for Educational Facilities (NCEF) a program of the National Institute of Building Sciences. Since 1998, the National Clearinghouse for Educational Facilities has provided timely, comprehensive information on designing, building, and maintaining safe, healthy, high-performing schools -- from early childhood and K-12 to higher education. NCEF is a program of the National Institute of Building Sciences, a non-governmental, non-profit organization authorized by Congress to serve as an authoritative source of innovative solutions for the built environment.

Medford Area Public School District
Educational Space Analysis

Building/Program Capacities

Capacity Enrollment Summary

Enrollment Capacity		Maximum Class Size Capacity	Current Capacity Enrollment	Target Class Size Capacity 80%
Medford Area Senior High School		922		738
Totals:		922	600	738

Enrollment Capacity based on Space Area		Maximum Class Size Capacity	Current Capacity Enrollment	Target Class Size Capacity 80%
Medford Area Senior High School		836		669
Totals:		836	600	669

Medford Area Public School District
Educational Space Analysis

Building/Program Capacities — Medford Area Senior High School

Current Enrollment and Room Usage - Year 2018/19

Program	Enrollment
Ninth Grade	167
Tenth Grade	131
Eleventh Grade	143
Twelfth Grade	159
Alternative	included
Totals:	600

Enrollment Capacity based on Maximum and Target Class Size

Num of Rooms	Program	Periods per Day	Periods Used	Usage Factor	Maximum Class Size	Maximum Capacity	Efficiency Factor	Target Capacity
14	Standard Classrooms	8	6	75%	26	273	80%	218
5	Study Hall	8	8	100%	26	130	80%	104
5	Science	8	6	75%	24	90	80%	72
0	Change from current use	8	6	75%	24	0	80%	0
24								
1	Phy-ed Stations	8	6	75%	27	20	80%	16
1	Weight/Fitness	8	6	75%	27	20	80%	16
1	Wrestling/Fitness	8	6	75%	27	20	80%	16
1	Swimming Pool	8	0	0%	25	0	80%	0
1	Health Classroom	8	4	50%	26	13	80%	10
3	World Language	8	5	63%	26	49	80%	39
0	Computer Lab	8	4	50%	25	0	80%	0
1	Multi-Purpose Room/ SH	8	8	100%	26	26	80%	21
1	Distance Learning	8	0	0%	25	0	80%	0
1	Study Hall/ IMC	8	8	100%	26	26	80%	21
2	Business Education	8	6	75%	24	36	80%	29
2	Tech. Ed. Classroom	8	6	75%	24	36	80%	29
1	Tech. Ed. Classroom	8	6	75%	24	18	80%	14
1	Project Lead the Way	8	6	75%	24	18	80%	14
0	Agriculture classroom	8	4	50%	24	0	80%	0
0	Agriculture lab	8	4	50%	24	0	80%	0
2	FACE classroom and lab	8	4	50%	24	24	80%	19
2	Art	8	4	50%	24	24	80%	19
1	Graphic Art	8	6	75%	24	18	80%	14
1	Band	8	1	13%	100	13	80%	10
1	Concert Band	8	1	13%	50	6	80%	5
1	Choir	8	2	25%	40	10	80%	8
1	Show Choir	8	1	13%	45	6	80%	5
1	Agriculture/Driver Ed	8	3	38%	24	9	80%	7
5	Special Education	8	6	75%	10	38	80%	30

	Maximum Capacity	Target Capacity
	922	738
Current Enrollment	600	600

Building/Program Capacities — Medford Area Senior High School

Enrollment Projection

	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27
Actual/Projected Enrollment	599	612	633	633	592	600	615	668	702	695	698	686	673	652
Maximum Capacity Over/(Under)	(323)	(310)	(289)	(289)	(330)	(322)	(307)	(254)	(220)	(227)	(224)	(236)	(249)	(270)
Target Capacity Over/(Under)	(139)	(126)	(105)	(105)	(146)	(138)	(123)	(70)	(36)	(43)	(40)	(52)	(65)	(86)

Note: Current enrollment based on May 6, 2019 Current Count
Past enrollment based on year end enrollment reports
Future enrollment provided by District, past year enrollment projected forward

Educational Space Deficiencies & Capacity based on Space Area

Function/Grade	Qty.	Area (SF)	Extn. (SF)	Recommended Area (SF)	Recommended Exten. (SF)	(SF)/student	Usage %	Maximum Capacity
English	1	638	638	800	(162)	31	80%	17
English	1	680	680	800	(120)	31	80%	18
English	1	889	889	800	89	31	80%	23
English	1	1,329	1,329	800	529	31	80%	26 teaching max
Social Studies	1	1,065	1,065	800	265	31	80%	26 teaching max
English	1	1,010	1,010	800	210	31	80%	26
Social Studies	1	842	842	800	42	31	80%	22
Social Studies	1	786	786	800	(14)	31	80%	20
Social Studies	1	786	786	800	(14)	31	80%	20
Math	1	738	738	800	(62)	31	80%	19
Math	1	688	688	800	(112)	31	80%	18
Math	1	737	737	800	(63)	31	80%	19
Math	1	688	688	800	(112)	31	80%	18
Math	1	689	689	800	(111)	31	80%	18
Study Hall	1	893	893	800	93	31	100%	26 teaching max
Study Hall	1	891	891	800	91	31	100%	26 teaching max
Study Hall	1	624	624	800	(176)	31	100%	20
Study Hall	1	624	624	800	(176)	31	100%	20
Study Hall	1	830	830	800	30	31	100%	26 teaching max
Science	1	1,563	1,563	1,400	163	50	80%	25
Science	1	1,012	1,012	1,400	(388)	50	80%	16
Science	1	1,134	1,134	1,400	(266)	50	80%	18
Science	1	1,485	1,485	1,400	85	50	80%	24
Science	1	1,465	1,465	1,400	65	50	80%	23
Phy-ed Stations	1	9,687	9,687	10,000	(313)	250	75%	26 teaching max
Weight/Fitness	1	4,695	4,695	5,000	(305)	250	75%	14
Wrestling/Fitness	1	2,513	2,513	4,000	(1,487)	250	75%	8
Swimming Pool	1		0		0	250	0%	0
Health Classroom	1	786	786	800	(14)	31	50%	13
World Language	1	615	615	800	(185)	31	63%	12
World Language	1	919	919	800	119	31	63%	19
World Language	1	770	770	800	(30)	31	63%	16
Computer Lab	1		0		0	50	0%	0
Multi-Purpose Ro	1	3,354	3,354	3,500	(146)	150	100%	22
Distance Learning	1		0		0		0%	
Study Hall/ IMC	1	2,887	2,887	5,200	(2,313)	150	100%	19
Business Educatio	1	737	737	1,400	(663)	50	75%	11
Business Educatio	1	748	748	1,400	(652)	50	75%	11
Tech. Ed. Classro	1	643	643	800	(157)	50	75%	10
Tech. Ed. Lab	1	1,620	1,620	1,790	(170)			
Tech. Ed. Classro	1	696	696	800	(104)	50	75%	10
Tech. Ed. Lab	1	2,450	2,450	2,700	(250)			
Tech. Ed. Classro	1	724	724	800	(76)	50	75%	11
Tech. Ed. Lab	1	2,250	2,250	2,480	(230)			
STEAM Center	1	0	0	1,800	(1,800)			
Project Lead the \	1	922	922	800	122	50	75%	14
Agriculture classro	1		0		0		0%	
Agriculture lab	1		0		0		0%	
FACE classroom a	1	1,174	1,174	1,400	(226)	50	50%	12
FACE classroom a	1	1,217	1,217	1,400	(183)	50	50%	12
Art	1	1,008	1,008	1,400	(392)	50	50%	10
Art	1	1,390	1,390	1,400	(10)	50	50%	14
Graphic Art	1	689	689	1,400	(711)	50	50%	0

Function/Grade	Qty.	Area (SF)	Extn. (SF)	Recommended Area (SF)	Recommended Exten. (SF)	(SF)/student	Usage %	Maximum Capacity
Band	1	3,425	3,425	3,500	(75)	100	13%	4
Concert Band	1	1,576	1,576	1,800	(224)	50	13%	4
Choir	1	1,430	1,430	1,800	(370)	40	25%	9
Show Choir	1	1,526	1,526	1,400	126	45	13%	4
Driver Ed	1	813	813	800	13	50	38%	6
Special Education	5	3,552	710	710	0	125	100%	28
			74,060		(10,820)			836

		Target Capacity at 80%
Total Recommended Area	84,880	669
Current Enrollment		600

	Area (SF)	Number of Periods	Capacity	
Cafeteria Capacit	5,052	2	561	Capacity = Area/(15 SF per Student)*Periods
IMC Capacity	2,887		361	Capacity = Area/(8 SF per Student)

	Current Size		Recommend				
Site Size	37.2	Acres	47.4	Acres	(10.2)	Acres	Recommended 40.0 Acres plus 1.0 Acre per 100 students
Site Parking	437	Space	384	Spaces	53	Spaces	Recommended 1.5 spaces per staff member + 50% of students

Comparable Athletic Facilities based on Space Area

District	Enrollment	Area (SF)	Stations	Seating	Notes
Antigo			3		
Lakeland		unsure	4	1,200	Fieldhouse; a lot of community support / contribution
Medford	600		2	1,100	
Rhinelander			3	1,258	
Mosinee		10,800	2	920	Gym
Northland Pines		50,120	4		running track
Tomahawk		20,000	4		North/South Gyms
Ashland		unsure	2	1,500	Gym
		unsure	4	150	Fieldhouse
Chequamegon					
Philips					
Colby					
Ladysmith					
Marshfield					
Merrill					
Shawano					
Stevens Point					
Waupaca					
Wausau					
Wisconsin Rapids	1,265	30,250	4		

Comparable Performing Arts Facilities based on Space Area

District	Enrollment	Area (SF)	Stage (SF)	Seating	Notes
Antigo					
Lakeland		unsure	unsure	600	Just renovated; no pit, no fly, one space
Medford	600				
Rhinelander					
Mosinee		~9088	~2400	750	One space, no fly, no pit, very simple
Northland Pines					
Tomahawk		1,000	10	200	
Ashland					
Chequamegon					
Philips					
Colby					
Ladysmith					
Marshfield					
Merrill					
Shawano		11,375	3,000	758	
Stevens Point					
Waupaca					
Wausau					
Wisconsin Rapids	1,265	17,135	3,325	833	

Student Services / Office

- Lack of meeting areas for both one-on-one interaction and conferences
- Shortage of overflow offices for visitors, volunteers, recruiters, etc.
- Student services should be separate from main office
- Inadequate of office space for staff
- Career Center could be better laid out and utilized
- No confidentiality in office spaces in general
- Lack of storage space
- Health Room has no privacy and accessibility
- Health Room does not have attached toilet facility
- Medication storage is not working well - need more lockable storage
- Staff could use better access to printer / copiers around the building

Guidance

- Lack of confidentiality
- Medication distribution is not ideal
- Would prefer if the main office and student services were separate

Red Zone / Concessions

- Store lacks "store-like" look and quality
- Store could use much more shelving for display
- Lack of storage
- Would like display window so that people are drawn into the space
- Concession stand needs replacement - hard to serve from the high counter and
- Need for lockable casework

Physical Education

- Lack of storage - current storage is a catch-all for entire school; would be nice there was
- Need for more gymnasium space - causes class period conflicts as well as sports conflicts
- Lack of technology
- Women's locker rooms are lacking in space and accommodation
- Only one team room and it's used for men
- Lockers are aging; there are not enough lockers for students, especially women
- Lack of concessions at gymnasium facility for sporting events

Tech. Ed.

- Not ideal that the Tech. Ed. building is not connected to the main school - security
- Welding shop is very tight
- Lack of up-to-date equipment; lack of equipment in general
- Ventilation is loud and inefficient
- Small Engines classroom is very tight
- Would like to provide more STEAM curriculum to students
- Inadequate space to do larger projects
- Not enough storage space for projects and supplies

Business Department

- Security
- Need for more efficient power station
- Upgraded technology
- Lack of storage
- Classrooms are small with big equipment that takes up a lot of room
- Not all classrooms have windows to the outside

Family and Consumer Education

- Lack of ventilation
- Surveillance is a concern - teacher is not able to see entire class
- Layout is not ideal, finishes and fixtures need updating
- Insufficient storage
- No three compartment sink in space - students are tested on this, so it is a need
- Would be ideal to have a residential and commercial kitchen set up

General Classrooms

- Classrooms are undersized
- Lack of flexibility for collaboration (both space-wise and furniture-wise)
- Not enough staff instructional area
- Not all rooms have access to natural daylight
- Insufficient staff storage for personal belongings
- No ventilation in Science classrooms
- Lack of general storage as well as specific storage (i.e. chemical storage, etc.)
- No designated STE(A)M classrooms - could be expanded in a big way based on district
- Project Lead the Way could have a much bigger presence

Science

- Lack of storage
- Not enough space - makes things challenging for certain curriculum
- Would like to provide more STE(A)M curriculum to students
- Surveillance is a concern - safety concern

Special Education

- Lack of individual spaces for certain needs
- Many rooms lack natural daylight
- Confidentiality is a concern (i.e. IEP & Crisis Management); lack of individual offices
- No safe space / calm room
- ELL and Social Services are undersized
- Lack of student services spaces
- Special Education spaces are a bit remote; would like it there were some more special education classes closer to the main office
- Café concept would work well if it were closer to Special Education spaces
- Lack of small group rooms / collaboration rooms around the building
- Do not have room with swing
- Lack of Mother's Room
- Rooms are not acoustically sound
- No testing / counselling space

World Language

- Lack of natural daylight
- Inadequate flexibility for collaboration (both space-wise and furniture-wise)
- Not enough departmental storage
- Copiers closer to classrooms would be ideal
- Not enough toilets in restrooms, especially for teacher use
- Temperature / humidity control is lacking

Art

- Art Room is undersized
- Dark Room is not located nearby the Art department
- Digital / Graphic Arts is a popular program, but there are not enough computers
- District would like Green Room / Audio Recording Room - need quiet space
- Location of Art department is not ideal - would be better placed by Tech. Ed. spaces

Music

- Theater is undersized - ideal size according to the district is 1,000 seat (700 main floor, 300
- Lack of adequate lighting / acoustics in theater
- Carpet in Band room is not ideal
- No acoustic control
- Not enough practice rooms - many are used for storage or other purposes
- Would like piano lab
- Lack of ventilation
- Show Choir space is lacking - both horizontally and vertically
- Concert Choir room would benefit if the built-in risers were taken out and flexible risers
- Do not have a lot of updated technology (i.e. flexible technology, recording capabilities,
- Undesignated office space - all teachers share one room
- Concert Band room is undersized - 100 piece ensemble

Library

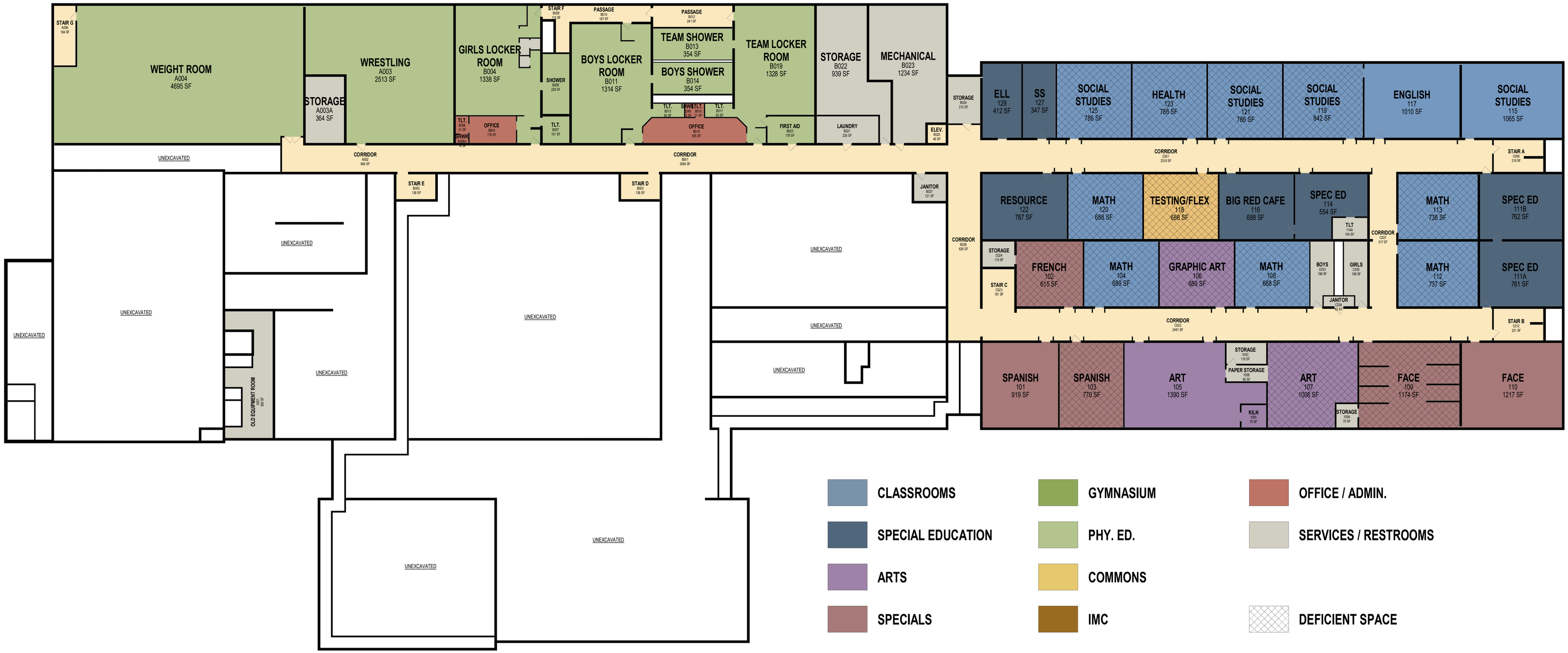
- Lack of space
- Very book-heavy district - need space for adding new books
- Insufficient flexibility for collaboration (both space-wise and furniture-wise)
- Not a lot of quiet spaces for students

IT

- Networking room is very small - a bigger room would be ideal to support all of the infrastructure within, new racks would be an alternate solution
- Upgrade network jacks to current standards
- Upgrade fire between the wire closets throughout the school
- Wire closet on west end of the building is in the boiler room - would like this separated
- Would prefer if the wire closet in Room 222 was not in shared area so that it is secure
- Public access doors need to have connection to the network
- More power is needed to classrooms
- Outdoor and indoor camera access needs upgrading
- Fiber between all buildings would be ideal

MAIN LEVEL FLOOR PLAN

MEDFORD AREA PUBLIC SCHOOL DISTRICT
MEDFORD AREA SENIOR HIGH SCHOOL



LOWER LEVEL FLOOR PLAN

MEDFORD AREA PUBLIC SCHOOL DISTRICT
MEDFORD AREA SENIOR HIGH SCHOOL