DMPS FACILITY ASSESSMENT | McKEE EDUCATION CENTER

01.23.2024

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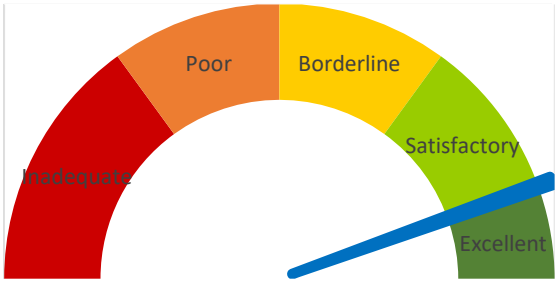


REPORT ORGANIZATION

EXECUTIVE BUILDING SUMMARY

McKee Education Center's on-site facility conditions assessment was conducted on January 23, 2024 and included visual conditions assessment from professionals covering interior architecture, exterior building envelope, the property's grounds (site), structural condition, mechanical (HVAC/Plumbing) systems, electrical systems (power, exterior lighting, interior lighting, fire alarm, and general IT), and the elevator conditions.

The assessment visit to McKee Education Center identified a significant number of maintenance items needing attention including ceiling tile repairs, door hardware adjustments, roof cleaning, exterior repairs, tree trimming, egress obstructions, site drainage repair, structural maintenance, mechanical system repairs, basement water mitigation, and lighting controls adjustments.

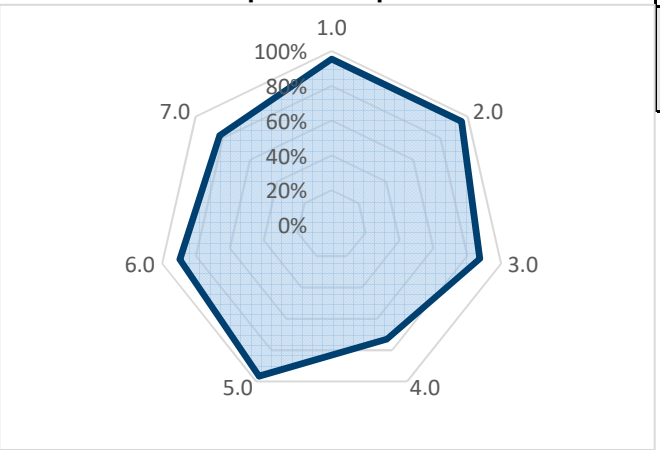
Recommended projects for McKee Education Center to be completed in the next 1-2 years include:

- Interior door finish repairs
- Exterior doors repainting
- Exterior sealant replacement
- Pavement and sidewalk replacement
- DOAS replacement units
- Heat pump modifications
- Additional CCTV cameras

These projects, along with all of the recommended potential projects at the 3-4 year and 5-10 year priority levels, are further described within this report.

Discipline Comparison				Building Health				
Assessment Category Summary		Max Pnts	Earned Pnts	Bldg Weight Factor	Max Pnts	Earned Pnts	%	Rating
1.0	Educational Adequacy	130	124	2.00	260	248	95%	Excellent
2.0	Environment for Education	375	358	0.60	225	215	95%	Excellent
3.0	Exterior Envelope	95	83	3.00	285	249	87%	Satisfactory
4.0	School Site	100	73	1.50	150	110	73%	Satisfactory
5.0	Structural Conditions	145	140	1.30	189	182	97%	Excellent
6.0	Mechanical Systems	670	600	0.80	536	480	90%	Satisfactory
7.0	Electrical Systems	370	305	0.75	278	229	82%	Satisfactory
Total					**1,922**	**1,712**	**89%**	**Satisfactory**

McKee Education Center
Discipline Comparison



Rating Table				
1-29%	30-49%	50-69%	70-89%	90-100%
Inadequate	Poor	Borderline	Satisfactory	Excellent

After totaling the scores from the various discipline assessment reports McKee Education Center scored a building health rating of 89% or "Satisfactory" per the scale described above. Per the graph shown on the cover page of this report, scores within the "green" range are considered positive scores. McKee Education Center is within this positive range. Improvements to the school site, electrical systems, and mechanical systems will help increase this rating to "Excellent".

Building Data Record

Building Name: McKee Education Center

Date: January 23, 2024

Address: 2116 East 39th Court
Des Moines, IA 50317

High School Feeder System: N/A

Building SF: 43,400 square feet

Site Acreage: 5.03 acres

Date(s) of Construction: 1949, 1960, 2015

Date(s) of Roof Replacement: 2011, 2016

Current/Scheduled Projects: Flooring Renovation - 2024
Restroom Upgrades - 2024
Exterior Concrete - 2024
Lift & Paving - 2024

Existing Building Data:

- [x] Egress Plans
- [x] Original Docs
- [x] Major Renovations and Additions
- [ ] Minor Projects
- [ ] Maint. Reports

Site Items:

- [ ] Student Garden
- [ ] Loading Dock
- [x] Stormwater Detention

Energy Source:

- [x] Electric
- [x] Gas
- [x] Geothermal
- [ ] Solar

Cooling:

- [ ] DX RTU or DOAS
- [ ] Chiller
- [ ] VRF
- [x] Water Source Heat Pump
- [ ] Fluid Cooler

Heating:

- [ ] Gas/Electric RTU or DOAS
- [ ] Boiler
- [ ] Water-to-Water Heat Pump
- [ ] VRF
- [x] Water Source Heat Pump

Structure Fireproofing:

- [x] No
- [ ] Yes

Construction:

- [x] Load Bearing Masonry
- [x] Steel Frame
- [x] Concrete
- [ ] Wood
- [ ] Other

Exterior Facade:

- [x] Brick
- [ ] Stucco
- [ ] Metal
- [ ] Wood
- [x] Other
  Concrete, Cast Stone

Floor/Roof Structure:

- [x] Wood Joists
- [x] Steel Joists/Beams
- [x] Slab on Grade
- [x] Struct. Slab
- [x] Other
  Concrete Pan Joists

A | Architectural, Programming

ASSESSOR: Tim Bungert

1.0 Educational Adequacy

		Weight Factor	Rating	Points	Comments
General					
1.1	**Floor materials** are appropriate for space type.	2	5	10	
Elective/Secondary Classroom					
1.2	**Gymnasium** is adequate for providing physical education programming.	2	4	8	Damaged / missing basketball hoops.
1.3	**Cafeteria** has adequate space, furniture, and acoustics for efficient lunch use.	2	N/A	0	
1.4	**Music room** is adequate for providing introductory music instruction.	2	N/A	0	
1.5	**Art room** has sufficient accommodations for program.	2	N/A	0	
1.6	**Library/Resource/Media Center** provides appropriate and attractive space.	1	N/A	0	
Core Classroom					
1.7	Classroom space permits arrangements for **small group activity.**	3	5	15	
1.8	**Student storage space** is adequate.	2	5	10	
1.9	**Teacher storage space** is adequate.	3	5	15	
1.10	Classroom **acoustical treatment** of ceiling, walls, and floors provide effective sound control.	3	5	15	

A | Architectural, Programming

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
1.11	**Classroom power and data receptacles** are located to support current classroom instruction.	4	4	16	Outlets are not located conveniently in some classrooms. Power strips with long cords were observed stretched along walls to provide power.
1.12	Educational **technology** supports instruction.	4	5	20	
Administration					
1.13	**Conference/Private meeting rooms** are adequate for large and small meetings.	1	5	5	
1.14	**Main office** has a check-in and waiting area.	2	5	10	
	TOTAL			124	

A | Architectural, Interior

ASSESSOR: Tim Bungert

2.0 Environment for Education

Design

		Weight Factor	Rating	Points	Comments
2.1	**Traffic flow** is aided by appropriate foyers and corridors.	1	5	5	
2.2	Communication among students is enhanced by **common areas.**	1	5	5	
2.3	Areas for students to **interact are suitable to the age group.**	1	5	5	
2.4	Large group areas are designed for effective **management of students.**	2	4	8	Seating in auditorium is not appropriately sized for preschoolers.
2.5	**Furniture Systems** are in good or like new condition.	1	5	5	
2.6	**Color schemes**, building materials, and decor are **engaging and unify** the school character.	2	5	10	
2.7	Windows and skylights provide access to **adequately controlled daylight** for regularly occupied spaces.	3	5	15	
2.8	Windows provide access to **quality views** (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	5	15	
2.9	**Lighting has proper controls** to provide the required light levels for various teaching and learning needs.	2	5	10	
2.10	**Staff dedicated spaces** include conference space, work space, and dedicated restrooms.	1	5	5	

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.11	**Main office** is visually connected to the entry and is welcoming to students, staff, and guests.	2	5	10	
2.12	**Break room** is adequately sized and furnished for proper use.	1	5	5	
2.13	**Mother's room** is a separate designated space properly furnished.	1	4	4	A large, empty classroom on the upper level has been used as a mother's room previously and has sufficient furnishings. The space is much larger than necessary and may not offer ideal privacy.
Maintainability					
2.14	**Floor surfaces** are durable and in good condition.	1	5	5	
2.15	**Ceilings** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	5	5	
2.16	**Walls** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	5	5	
2.17	**Built-in casework** is designed and constructed for ease of maintenance.	1	4	4	Finish repairs needed at wood casework in some classrooms - see projects list.
2.18	**Doors** are either solid core wood or hollow metal with a hollow metal frame and well maintained.	3	4	12	Many classroom doors are in need of minor finish repairs and mop plates - see projects list.
2.19	**Facility doors** are keyed to standardized master keying system.	3	5	15	
2.20	**Restroom partitions** are securely mounted and of durable finish.	2	5	10	

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.21	**Adequate electrical outlets** are located to permit routine cleaning in corridors and large spaces.	1	5	5	
Occupant Safety					
2.22	Classroom doors are **recessed and open outward.**	4	5	20	
2.23	Door hardware (into classrooms or any occupied rooms off of corridors) include **intruder classroom locksets.**	3	5	15	
2.24	**Door panels** into classrooms and other occupied spaces contain **vision lite.**	3	5	15	
2.25	**Vision lite** in doors is clear and uncovered.	2	5	10	
2.26	**Glass** is properly located and protected to prevent accidental injury.	2	5	10	
2.27	**Flooring** is maintained in a **non-slip** condition	2	5	10	
2.28	**Traffic areas terminate at exit or** stairway leading to egress	5	5	25	
2.29	Multi-story buildings have at least **two stairways** from all upper levels for student egress.	5	3	15	The required secondary exit stair (exterior) from the upper level was blocked by very deep snow.
2.30	**Stairs (interior and exterior)** are well maintained and in good condition meeting current safety requirements.	5	5	25	

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.31	At least **two independent exits** from any point in the building	5	5	25	
2.32	**Emergency lighting** is provided throughout the building.	5	5	25	
	TOTAL			358	

A | Architectural , Exterior

ASSESSOR: Matthew Gaul

3.0 Exterior Envelope

		Weight Factor	Rating	Points	Comments
Design					
3.1	Overall **design is aesthetically pleasing** and appropriate for the age of students.	2	5	10	
Maintainability					
3.2	**Roofs** appear sound, have positive drainage, and are water tight.	3	4	12	One roof would hold a significant amount of water if the drain were clogged; adding an overflow is recommended..
3.3	**Roof access** is safe for all roofs.	3	4	12	Two existing roof ladders require replacement to meet code.
3.4	Exterior **window sealant** is fully intact without cracks or gaps.	3	5	15	
3.5	**Glazing** is low-e coated, insulated, and overall in good condition.	1	4	4	Low-e glazing cannot be determined. Windows are tinted.
3.6	**Operable windows** are functional and safe. Operable portion of window fully seals when closed without gapping or leaking.	2	5	10	
3.7	**Exterior doors** are of durable material requiring minimum maintenance.	2	4	8	Some doors require repainting and one requires replacement.
3.8	**Exterior walls** are of material and finish requiring little maintenance,	1	4	4	Areas of soffit require repainting.
3.9	**Exterior Doors** open outward and are equipped with **panic hardware.**	1	5	5	
3.10	**Exterior Doors are monitored** or controlled by an access control system.	1	3	3	01 - Doors do not latch 07 - Doors with card readers 01 - Doors with locks 04 - Doors with no exterior lock 00 - Doors with no signage. ## - Doors at courtyard with no monitoring.
	TOTAL			83	

C | Civil

ASSESSOR: Jack Gorman Joel Jackson

4.0 The School Site

		Weight Factor	Rating	Points	Comments
4.1	**Site topography** and grading drains water away from the building and retaining walls.	1	4	4	Good drainage away from building. One issue of water ponding next to building.
4.2	**Parking areas** are in good condition.	5	4	20	Most of the parking pavement is in good condition. One area was experiencing subsurface moisture issues.
4.3	**Drive areas** are in good condition.	3	3	9	The access drives into the east parking lot have deteriorated and require replacement. The drive area in the between the sidewalk in the east parking lot is experiencing subsurface moisture issues and should be replaced soon.
4.4	**Sufficient on-site, solid surface parking** is provided for faculty, staff, and community.	1	3	3	DMPS states that staff parking is sufficient for day to day use but that there is no event parking.
4.5	**Sidewalks** around the facility are in good **condition.**	1	3	3	The west side sidewalk in front of the building appeared to have been redone recently, with a new ADA ramp included. What appeared to be the old ADA route to the west building door has deteriorated and should be removed. Other isolated sections across site and a set of stairs require replacement.
4.6	**Sidewalks are located** in appropriate areas with adequate building access.	1	5	5	Site was easy to navigate by sidewalk and all doors have sidewalk access.
4.7	**Hard surface** playground surfaces are in good condition.	3	3	9	The section of PCC appeared new and in good condition. The asphalt section was cracking throughout and will need replacement within 10 years.
4.8	**Fencing** around the site is in good condition.	1	5	5	Fencing conditions were good across site, the gate latch on the fence around the detention basin was broken and needs replacement.
4.9	**Trash enclosure** is in good condition.	1	3	3	The pavement in front of the trash enclosure was broken and the pavement where the dumpsters sit was cracking, both should be replaced with reinforced PCC. The masonry brick and gate were in good condition.
4.10	**Utilities** are in newly constructed conditions and placed in suitable locations.	1	5	5	No utility issues were observed.

ASSESSOR: Jack Gorman Joel Jackson

		Weight Factor	Rating	Points	Comments
4.11	**Site has sufficient room** for both building and parking expansion.	1	4	4	There is space to the north for building expansion and the south has space for either parking or building expansion. The playground area would have to be pushed further south for a building expansion.
4.12	Site has **onsite bus and parent pickup** up with adequate length, good separation and general good site circulation.	1	3	3	Buses use the west side and parents use the east for drop off. DMPS states it is a balancing act everyday between buses and cars and that parents will back up onto the east street. DMPS also states that reversing the direction of parent traffic (to south to north) may alleviate congestion issues
	TOTAL		73		

S | Structural

ASSESSOR: Niles Quick

5.0 Structural Conditions

Foundations

		Weight Factor	Rating	Points	Comments
5.1	**Foundations** appear to be in good condition with no visible cracks.	1	5	5	
5.2	There does not appear to be any **foundation settlement.**	2	5	10	
5.3	**Basement walls** do not appear to have any cracks.	1	5	5	
5.4	**Stoops** appear to be in good condition.	1	5	5	A couple minor cracks were observed in exterior stoops - one on stoop outside of 102 and one on stoop outside of 113 - but no major concerns.

Slab on Grade

5.5	**Slabs on grade** do not appear to have any cracks	1	5	5	
5.6	Slabs on grade do not appear to have any **settlement.**	1	5	5	

Exterior Walls

5.7	**Brick masonry** appears to be in good condition.	2	5	10	
5.8	**Lintels** appear in good condition (no visible deflection or rust).	1	4	4	Minor rusting on lintels in rooms 102 (4) and 126 (2). (6 total)
5.9	**CMU** is in good condition.	1	5	5	
5.10	**Precast** is in good condition.	1	N/A	0	

S | Structural

ASSESSOR: Niles Quick

		Weight Factor	Rating	Points	Comments
Interior Walls					
5.11	**Interior walls** appear to be in good condition.	1	5	5	
Floor Framing (Elevated)					
5.12	**Floor framing** appears to be in good condition.	3	5	15	
5.13	Floor framing appears to meet the **code requirements.**	3	5	15	
Roof Framing					
5.14	**Roof framing** appears to be in good condition.	3	5	15	
Miscellaneous					
5.15	**Retaining walls** appear to be in good condition.	1	5	5	
5.16	**Canopies** appear to be in good condition.	1	5	5	
5.17	**Loading dock concrete** appears to be in good condition.	2	N/A	0	
5.18	**Mechanical screening** appears to be in good condition.	2	5	10	
5.19	**Stairs** appear to be in good condition.	1	5	5	
5.20	**Stair railings** appear to be in good condition.	1	5	5	

S | Structural

ASSESSOR: Niles Quick

		Weight Factor	Rating	Points	Comments
5.21	**Tunnels** appear to be in good condition without cracks.	1	N/A	0	
5.22	There is a **designated hardened area** in the building.	1	3	3	There is a basement throughout the entire footprint of the building which would act as a hardened area. However, there was a tornado drill while I was on site and they had students go into the restrooms, but no signage was noted that this was a designated hardened space.
5.23	The hardened area appears consistent with the **ICC 2018 code.**	1	3	3	As noted above, there is a basement that could be utilized as a designated hardened area, however there was no signage that noted the basement was to be used as a hardened space. A further study would need to be performed to determine whether this meets the ICC 2018 code.
	TOTAL			140	

MP | Mechanical & Plumbing

ASSESSOR: Chuck Heldenbrand

6.0 Mechanical Systems

HVAC Design

		Weight Factor	Rating	Points	Comments
6.1	**Zone Control.** Thermostats are provided in each space for individual zone control of space temperatures.	3	5	15	
6.2	**Thermostat location.** Thermostats are properly located in the space.	3	5	15	
6.3	Appropriate **amount of ventilation** are provided to each space.	5	5	25	Design drawings indicate appropriate levels of ventilation are provided for each space. However, see note below regarding operation of the ventilation system.
6.4	**Ventilation** is provided during occupied hours.	5	2	10	DOAS units not operational during site visit. Noted as not working well under extreme cold conditions.
6.5	**Outdoor air intake locations** are appropriate.	4	4	16	Intake for both DOAS-1 and 2 is at grade, which can more easily carry dirt/dust into the intake.
6.6	Appropriate **levels of exhaust** are provided for areas requiring this such as restrooms, janitor's closets and locker rooms.	5	4	20	PRVs operating but without DOAS for makeup during day of visit.
6.7	**Building pressurization.** The design takes into account the balance between ventilation and exhaust air	2	4	8	No OA makeup through DOAS during day of visit.
6.8	**Major HVAC Equipment** appears to be within it's acceptable **service life.**	5	3	15	Equipment 10 years old. Heat pumps appear to be in good condition. DOAS units not operating the day of site visit and may need replacement with RTU type. Boiler missing acid neutralizer on condensate discharge.
6.9	**Cooling loads** are within equipment operational capacity.	5	5	25	Well field temps are at upper temperature limit.
6.10	**Heating loads** are within equipment operations capacity.	5	5	25	

MP | Mechanical & Plumbing

ASSESSOR: Chuck Heldenbrand

		Weight Factor	Rating	Points	Comments
6.11	**Dehumidification** is provided and addressed humidity loads in incoming outside air.	3	4	12	DOAS units are provided with dehumidification, however, it appears they may not be able to operate reliably to provide dehumidification.
Plumbing Design					
6.12	**Water Supply Pressure** is adequate to allow for operation of plumbing fixtures.	5	5	25	
6.13	Appropriate **backflow preventer** is provided at connection to city water supply.	5	5	25	
6.14	**Domestic hot-water systems** are within equipment operational capacity.	5	5	25	
6.15	Domestic **hot-water recirculating systems** allow for hot-water at fixtures within a reasonable amount of time.	3	5	15	
6.16	**Sanitary sewer systems** are sized and sloped to allow for proper drainage.	5	5	25	
6.17	Appropriately sized **grease interceptors** are provided for facilities with food service.	3	5	15	
6.18	**Roof drainage** systems are sized appropriately and overflow drainage systems are installed.	5	5	25	
6.19	**Restroom fixtures** are in good condition and comply with current DMPS standards.	3	4	12	Some individual restrooms with manually operated fixtures.
Maintainability					
6.20	Equipment is provided with **adequate service clearance** to allow for regular maintenance	3	5	15	

MP | Mechanical & Plumbing

ASSESSOR: Chuck Heldenbrand

		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with **coil pull space.**	2	4	8	DOAS unit has limited access space.
6.22	**Filter** sizes are standard and filter types are standard.	2	4	8	Varies by equipment type.
6.23	**Equipment mounting heights** are reasonable.	3	5	15	Excellent access in lower level
6.24	**Floor surfaces** throughout the mechanical room are non-slip and are dry.	2	4	8	Floor wet in lowest level (pump room).
6.25	**Isolation valves** are located in the plumbing and hydronic systems to allow for isolation of only portions of the system for servicing.	2	5	10	
6.26	Appropriate means are provided for **airflow and water balancing.**	3	5	15	
6.27	**Hose Bibbs** located in proximity to **outdoor condensers and condensing units**. Is cottonwood an issue at this location?	2	4	8	RTUs require hose bibb for cleaning. Hose bibbs located at grade level but not on roof.
6.28	**Fall protection** is provided for equipment within 15 ft of roof edge as per OSHA standard 1910.28(b).	2	5	10	No perimeter mechanical equipment observed on roof.
6.29	**Building devices are on DDC controls** and fully visible through Building Automation System. No pneumatic controls remain.	4	5	20	
Occupant Safety					
6.30	**Backflow prevention** is provided at all **cross-connections** to non-potable water.	5	5	25	

MP | Mechanical & Plumbing

ASSESSOR: Chuck Heldenbrand

		Weight Factor	Rating	Points	Comments
6.31	Building is fully **sprinklered.**	5	5	25	
6.32	**Domestic hot-water temperature** at lavatories used by students or staff is provided with a thermostatic mixing valve and adjusted properly.	5	5	25	
6.33	**Emergency eye-washes and tempering valves** are located where required.	5	1	5	EEW device located in kitchen at hand-wash sink, but none in mechanical spaces. Recommend evaluation with an occupational safety and health professional to determine necessity of eye wash(es) for facility mechanical spaces.
6.34	**Emergency boiler stop switches** are located at exits from boiler rooms.	5	5	25	
6.35	**Refrigeration evacuation systems** are provided in rooms with chillers.	5	N/A	0	
6.36	**Carbon Monoxide monitoring** and alarming is provided for areas with gas-fired equipment.	5	5	25	
	TOTAL			600	

E | Electrical

ASSESSOR: Rob Hedgepeth

7.0 Electrical Systems

Electrical Design

		Weight Factor	Rating	Points	Comments
7.1	**Transformer location** is easily accessible by utility line truck to allow for rapid transformer replacement in the event of an issue.	5	5	25	
7.2	**Transformer** has adequate clearance from non-combustible building components, paths of egress, etc. 10' clear working area in front of doors.	5	5	25	Close to main entry, but ramp provides alternate exit path.
7.3	**The MDP environment** is safe, has adequate clearances and exiting.	3	5	15	1200a 120/208 - Siemens
7.4	The **MDP** appears serviceable.	4	5	20	
7.5	The MDP is **maintainable.**	3	5	15	
7.6	The MDP will support **future expansion.**	4	3	12	5 of 20 (only 2 200A spaces tho.)
7.7	The Distribution Panel **environment is safe**, has adequate clearances and exiting.	4	N/A	0	
7.8	The Distribution Panel appears **serviceable.**	4	N/A	0	
7.9	The Distribution Panel is **maintainable.**	4	N/A	0	
7.10	The Distribution Panel will support **future expansion.**	4	N/A	0	

E | Electrical

ASSESSOR: Rob Hedgepeth

		Weight Factor	Rating	Points	Comments
7.11	**Electrical panels and disconnect switches** observed during assessment are safe, serviceable, and maintainable.	2	5	10	
7.12	Building has adequate and appropriately located, **safe exterior power** to allow for regular maintenance activities.	1	0	0	No exterior receptacles observed.
7.13	Building has adequate **exterior lighting** to promote safety and security of the property.	5	4	20	Column light fixtures at front entry interfere with camera views (too much glare). Parking area appears to have good lighting, but SE camera renders in black and white.
Electronic System Design					
7.14	MDF is **neatly organized** and has appropriate clearances and working spaces. Cables are neatly laced or trained. Entry to the room is restricted.	4	4	16	Spare patch cables left at rack.
7.15	MDF Equipment Racks have adequate space for **future growth.**	4	3	12	Minimal space for growth.
7.16	MDF is equipped with UPS to back up main switch(es), providing **backup power** to necessary equipment in the event of a power outage.	5	5	25	One minuteman.
7.17	MDF Power is supplied by **20A circuits and receptacles.**	1	5	5	
7.18	MDF Power is supplied from a branch panel located in the room with **adequate spare circuit capacity.**	1	4	4	Panel in adjacent space right outside room. 11 of 42 circuits spare.
7.19	MDF employs up-to-date **network cabling.**	2	4	8	Cat 5e/6A
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with **fiber optic cabling.**	1	N/A	0	

E | Electrical

ASSESSOR: Rob Hedgepeth

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate **grounding busbar capacity.**	2	4	8	Grounding bar has spare capacity. Rack, intercom not grounded. Extra driven rod attached to TMGB 3/0 conductor to main?
7.22	Building is equipped with an **addressable fire alarm system.**	5	3	15	Building has Silent Knight FACP. Not district standard.
7.23	Building is equipped with an **access control system.**	5	2	10	4/11=36%
7.24	Building is equipped with a **CCTV system.**	5	4	20	SE cameras render in black and white after dark, although area lighting appears adequate. Consider upgrade to higher performance camera.
7.25	Building is equipped with an **intercom system.**	4	5	20	
7.26	Building is equipped with a **master clock system.**	4	5	20	Primex
	TOTAL			305	

RECOMMENDED PROJECTS AND COST ESTIMATING METHODOLOGIES

One of the major impetuses for our facility condition assessment work is the need to support strategic fiscal and maintenance planning for their facilities. As such, DMPS requires that recommended projects be assigned a total project cost in order to support the strategic planning needs of the District. A total project cost is a cost that includes the estimated construction cost as well as the various other 'hard' and 'soft' costs of a construction project such as professional design fees, contractor overhead, required contingencies, inflation, direct costs (e.g. permitting costs), etc. The full list of these hard and soft costs are defined later in this section.

Project Descriptions

Every building assessment report includes a section titled Recommended Projects and Priorities. This section is divided into the following subcategories: "Short Term Maintenance", "1-2 Year Project Priorities", "3-4 Year Project Priorities", "5 - 10 Year Project Priorities", and "Projects Requiring a Study". Each of these subcategories includes a list of project recommendations. The projects listed in each subcategory are grouped by discipline and listed in the following order: interior architecture, exterior architecture, civil (site), structural, mechanical, electrical, and elevator projects. The discipline order as described mirrors the order of the discipline Scoring Reports section found earlier in the building assessment report. The projects listed within Short Term Maintenance section do not include a cost. It is assumed that DMPS will perform this work. Additionally, projects which recommend furniture repair or replacement do not include a cost since furniture systems are selected and procured via a separate process. All other projects associated with the remaining subcategories, other than "Projects Requiring a Study" are provided an estimated total project cost.

Projects Requiring a Study

The projects listed within Projects Requiring a Study are provided estimated professional design fees to produce the recommended design study. In the future, once commissioned and completed, these recommended studies will not produce a completed design. Rather, the completed study will provide recommended project descriptions and estimated total project costs similar to the projects listed in this assessment report. For studies that most likely will result in a substantial project with a substantial cost associated, an "anticipated capital investment" cost number has been provided to help assist the District's strategic planning. This anticipated capital investment cost is based on a 5-10 Year Priority completion date and very high level general 'rules of thumb' estimations since it is unknown exactly what conclusions or recommendations will be determined by the study before the study is commissioned and completed.

Cost Estimating

To achieve the total project cost reflected in this building report, the recommended projects incorporate construction costs with added percentages to account for professional design services, design phase contingency, construction contingency, general contractor overhead and profit, other direct costs incurred by the project, and year-over-year inflation dependent on how many years out the recommended project is recommended to be completed. Not included in the total project cost are costs associated with hazardous materials abatement, testing, surveys, or site exploration (geotechnical testing, etc.). Additionally, for projects that are expected to produce a minimal amount of waste that is normally acceptable to City of Des Moines collection, costs for dumpsters have been excluded. To arrive at the final estimated total project cost as described above, the following methodology was used by the assessment team for each recommended project:

Step 1: Determine estimated direct cost of construction in 2024 dollars.

The recommended projects are conceptual in nature; therefore, all cost multipliers are overall systems level and/or unit costs. (These costs are not based on itemized breakdowns.) The cost information used is based on current available information which is in 2024 dollars and is a mixture of recent bids, firm experience, manufacturer provided information, and RS Means costing data.

Step 2: For recommended projects that are smaller in scale, scope, and estimated cost, a "small project fee" additive cost is applied to the estimated direct cost of construction determined in Step 1. This additive cost works to cover outsized mobilization, staffing, and equipment costs that are incurred on a small scale project the same as for a large project with a large economy of scale. These costs are as follows:

For projects with a Step 1 cost of $4,999.99 or less, an additive cost of $5,000.00 has been added.

For projects with a Step 1 cost of $5,000.00 to $14,999.99, a graduated additive cost from $5,000.00 to $0 has been added.

For all other projects (Step 1 cost of $15,000.00 and above) this step is skipped.

Step 3: Add 10% of the estimated direct construction cost for construction contingency.

RECOMMENDED PROJECTS AND COST ESTIMATING METHODOLOGIES

Step 4: Add a percentage of estimated direct construction cost plus construction contingency for inflation.
The projects are grouped based on how many years out it is recommended that the project is started. Projects closer to 2024 are more urgent projects. As project start times move further and further away from 2024, inflation must be added to best estimate how 2024 dollars will translate into the future. 5% year-over-year inflation was chosen as a reasonable assumption for this work.

- For projects assigned the 1-2 Year Priority add 10% of the estimated construction cost.
- For projects assigned the 3-4 Year Priority add 20% of the estimated construction cost.
- For projects assigned the 5-10 Year Priority add 50% of the estimated construction cost.

Step 5: Add 5% of the estimated direct construction cost, construction contingency, plus inflation for general conditions.
This cost covers the incidental costs incurred by the contractor to perform the work that are not directly tied to the specific materials and labor; examples include mobilizing to the site and final cleaning.

Step 6: Add 10% of the estimated direct construction cost, construction contingency, inflation, plus inflation for general contractor overhead and profit; combined, this is the total construction cost.

Step 7: Add 10% of the total construction cost for professional design services.
These services include, when appropriate: architectural design and project management, civil engineering, structural engineering, mechanical engineering, and electrical engineering. These services are for conceptual design through construction phase work.

Step 8: Add 5% of the total construction cost and professional design services for other direct costs.
These costs cover various other costs directly associated with the project such as printing, equipment, required permits, etc.

At the conclusion of Step 8, the total project cost for the recommended project is finalized.

PROJECT RECOMMENDATIONS

Below are recommended maintenance, projects, and studies based on the previous assessment scoring information. Short Term Maintenance items are items requiring DMPS attention in less than a year's time and is less than $5,000. Costs for these items are not estimated. 1-2 year priority projects are projects that require attention within the next 2 years. 3-4 year priority projects are projects that require attention within the next 4 years. 5-10 year priority projects are projects that require attention within the next 10 years. Project quantities are all estimated based on observations. These are not measured or verified quantities. Project costs are listed. Project requiring Study are items where project scope is not able to be defined at this time and further investigation is required. Costs for these items are design service fees, not project costs. See the Cost Methodology description for additional information.

Short Term Maintenance

Ceiling Tile Repairs	Remove and replace approximately 10 damaged acoustic ceiling tiles in rooms 111, 130, 150, corridor outside 140, and corridor outside 167.
Door Hardware Adjustments	Repair or replace a broken hinge on the vestibule double door north of room 113. Repair or replace one door closer at room 230.
Lighting Controls Adjustment	Confirm proper operation of lighting controls including occupancy sensor at room 120. Repair or reprogram controls as required.
Exterior Egress Stair Snow Removal	The required secondary egress stair (exterior) from the upper level was blocked by very deep snow during the assessment visit. Confirm that this stair is included in the building's overall snow removal plan.
Roof Cleaning	Remove debris from roof low spots, drains, overflows, gutters, and other areas where it collects so that the roof membrane remains in good condition and sheds water efficiently as designed. Also remove birds nests near under exterior stairs at south facade. Also remove plywood from roof.
Exterior Door Adjustment	Adjust 4 exterior doors so that they latch from any closing position at the following locations: 1 at main entry; 1 at room 1034; 2 at top of stairs N of room 1035.
Exterior Repairs	Place sleeve around pipe at room 155 and pack hole around pipe penetration with nonshrink grout. Fill hole next to building near room 155, approx. 10 CF. Tooth in one brick at freestanding column furthest south and east of main entry.

Landscaping	Trim tree back from parapet at east façade, near room 136.	
Life Safety	Move storage away from exterior door at room 110 and mark area as to remain clear. Remove picnic table from sidewalk egress path outside room 110. Move table that is blocking exit near room 240. Investigate reason why this exit is being blocked and if this is code compliant. Remove child lock from egress door between room 126 and room 127.	
Gate Latch Replacement	Replace the broken gate latch on the fence around the detention basin. For location, refer to civil site plan exhibit found in the appendix of this report.	
Drainage Repair	Add soil and sod to prevent water from ponding next to building. For location, refer to civil site plan exhibit found in the appendix of this report.	
Steel Beam Bearing Grouting	Install grout under steel beam bearing plate located on the NE corner of room 188 as there is currently no grout installed	
Concrete Anchor Installation	Concrete anchor was not located in the provided hole in steel angle for the elevated steel platform in room 155. Install new 1/4" HILTI HUS-EZ anchor in hole provided in vertical steel angle on the south side of the platform	
Boiler Acid Neutralizer Installation	Install acid neutralizer on condensate discharge off of high efficiency boiler.	
Exterior Entry Lights Dimming	The existing entry lights appear to have 0-10V dimming LED drivers. By adding resistance across the dimming terminals, these lights can be dimmed so they will still provide adequate lighting but not interfere with CCTV cameras.	

1 - 2 Year Priority

		Project Costs
Interior Door Finish Repairs	Repair a total of 150 SF of finish damage on 17 wood veneer doors at rooms 102, 105, 106, 107, 110, 113, 124, 126, 134, 136, 146, 162, 166, 167, and the interior doors at the northwest vestibule.	$11,000

Exterior Door Replacement	Replace single door with sidelite at room 130A.	$13,000
Exterior Door Repaint	Repaint doors and frames as follows: double door with sidelites near room 240, double door with sidelites near room 140; entry near room 102, approx. 3x double door with sidelites, wood; entry near room 113, approx. 2x double door with sidelites.	$13,000
Exterior Sealant Replacement	Replace sealant around glass block around roof area D. Approx. total: 260 LF Add sealant to two screws in backside of east parapet of roof area K. Replace sealant at perimeter of duct penetrations into walls at roof area K, 20 LF total. Replace sealant at masonry soft joints at the following locations: inside corner at east of roof area K to area J, 8 LF; SE corner of roof area H;, 2 LF; near grade between room 107 and 108, 1 LF. Replace sealant at lintels at blanked off wall penetrations at roof area B to H and K to J. Replace sealant at window perimeters near room 162-163, 48 LF, as well as door at this location, 14 LF.	$10,000
Pavement Replacement	Remove 122 SY of pavement and replace with 9 SY of reinforced PCC and add a rock base under the 78 SY experiencing subsurface moisture issues. For locations, refer to civil site plan exhibit found in the appendix of this report.	$25,000
Sidewalk Repair	Repair damaged sidewalks across the site. Approximately 39 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$11,000
Curb Repair	Return damaged curbs to new condition. Approximately 8 LF of 6" curbs. For locations, refer to civil site plan exhibit found in the appendix of this report.	$6,000
DOAS Unit Modifications.	Review existing DOAS units to confirm why operation during wintertime is an issue. Correct this issue. This project costs included installing electric pre-heat coils, though actual solution needs to be confirmed.	$50,000
Power Outlet Installation	Long extension cords were observed loosely taped to floors and walls in reach of children in rooms 105 and 106. Add two tamperproof power outlets (four total) at these rooms to reduce the need for extension cords.	$9,000

Exterior CCTV camera	Upgrade south-east corner camera for better low-light rendering. While area appears adequately lit, existing cameras render in black and white.	$9,000
	Total 1-2 Year Project Costs:	**$157,000**

3 - 4 Year Priority

		Project Costs
Casework Repairs	Repair finish damage on a total of 150 SF of wood veneer casework doors in rooms 105, 106, 107, 166, 167, and 250. Replace a total of 12 LF of plastic laminate backsplashes in rooms 105 and 107.	$14,000
Interior Door Replacement	Replace 1 wood door and frame from room 153 to room 154 with a painted hollow metal door and frame.	$12,000
Roof Access Installation	Replace ladders between roof area A and B (8 VLF) and roof area G and H (12 VLF)	$12,000
Soffit Repaint	Repaint areas of soffit where paint is cracking or flaking as follows, quantities are approximate: outside room 158, 10 SF; outside east and west of room 164, 20 SF; outside room 166, 20 SF; outside room 167, 20 sf; along underside of edge band of overhang outside room 102, 40 SF; outside room 105-107, 60 SF; outside room 111-113, 40 SF; outside room 134-136 60 SF. Approx. 270 SF	$7,000
Roof Repaint	Remove rust from galvanized shed and paint, approx. 150 SF.	$7,000
Pavement Replacement	Remove 9 SY of trash enclosure pavement and replace with reinforced PCC. For location, refer to civil site plan exhibit found in the appendix of this report.	$7,000
Sidewalk Repairs	Remove 137 SY of sidewalk, replace 38 SY of still in use sidewalk, and sod over the 99 SY of old ADA route sidewalk. For locations, refer to civil site plan exhibit found in the appendix of this report.	$25,000

Exterior Steel Lintel Cleaning and Painting	Clean and protect rusting lintels with high performance coating. Minor rusting on (4) total lintels in room 102, and (2) in room 126. ~ 40 L.F. on lintels total	$6,000
Stoop Crack Repair	Fill in minor crack in stoops outside of rooms 102 (~15 L.F.) and 113 (~8 L.F.)	$6,000
Exterior Stair Landing Cleaning and Painting	Clean and protect rusting steel beams with high performance coating. Some rusting observed on WF beams for stair landing outside of room 230 and 240. ~ 24 L.F. of steel beam.	$6,000
	Total 3-4 Year Project Costs:	**$102,000**

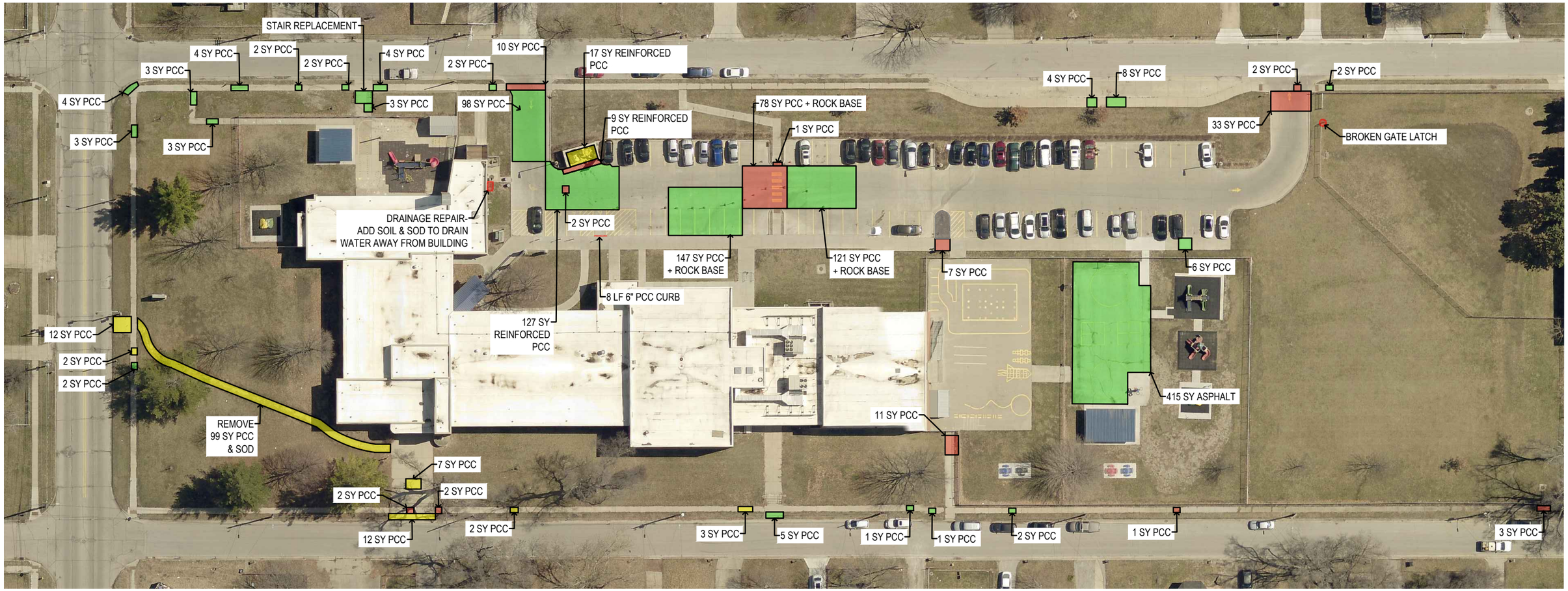
5 - 10 Year Priority

		Project Costs
Roof Replacement	Remove approx. 14,740 SF of TPO roofing and insulation over roof areas J, K, and L. Install code compliant insulation and TPO roofing. Approx. year 2031 Also add through wall overflow from roof area A to C or an internal overflow drain (estimated as through wall).	$470,000
Pavement Replacement	Remove 493 SY of pavement, replace 127 SY with reinforced PCC, add a rock base under the 268 SY experiencing subsurface moisture issues, and replace 98 SY with standard PCC. For locations, refer to civil site plan exhibit found in the appendix of this report.	$120,000
Playground Pavement Replacement	Take out and restore deteriorated playground asphalt. Approximately 415 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$75,000
Sidewalk Repair	Repair damaged sidewalks across the site. Approximately 63 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$15,000
Stair Replacement	Remove and replace deteriorated stairs. For location, refer to civil site plan exhibit found in the appendix of this report.	$35,000
	Total 5-10 Year Project Costs:	**$715,000**

Projects Requiring Study

		Design Services Fee
Auditorium Study	Study to evaluate potential improvements to or repurposing of the existing auditorium space to provide a more functional space for preschool programming.	$5,000
Roof Access Prevention	Design a way to prevent someone from climbing the exterior gas line near room 134 and room 154, two total. Consider taking the gas line inside the building and up through the roof in lieu of an exterior fence or other screening.	$5,000
Designated Hardened Area	No designated hardened area was observed. Study to determine the feasibility of adding a designated hardened area to the building including location within the existing building, schematic design concept if deemed feasible, and preliminary project costs.	$2,500
	Total Study Design Service Fees:	**$12,500**

APPENDIX



NORTH

GRAPHIC SCALE

60 0 30 60 120

5+ YEAR REPLACEMENT

3-4 YEAR REPLACEMENT

1-2 YEAR REPLACEMENT

bbs ARCHITECTS ENGINEERS

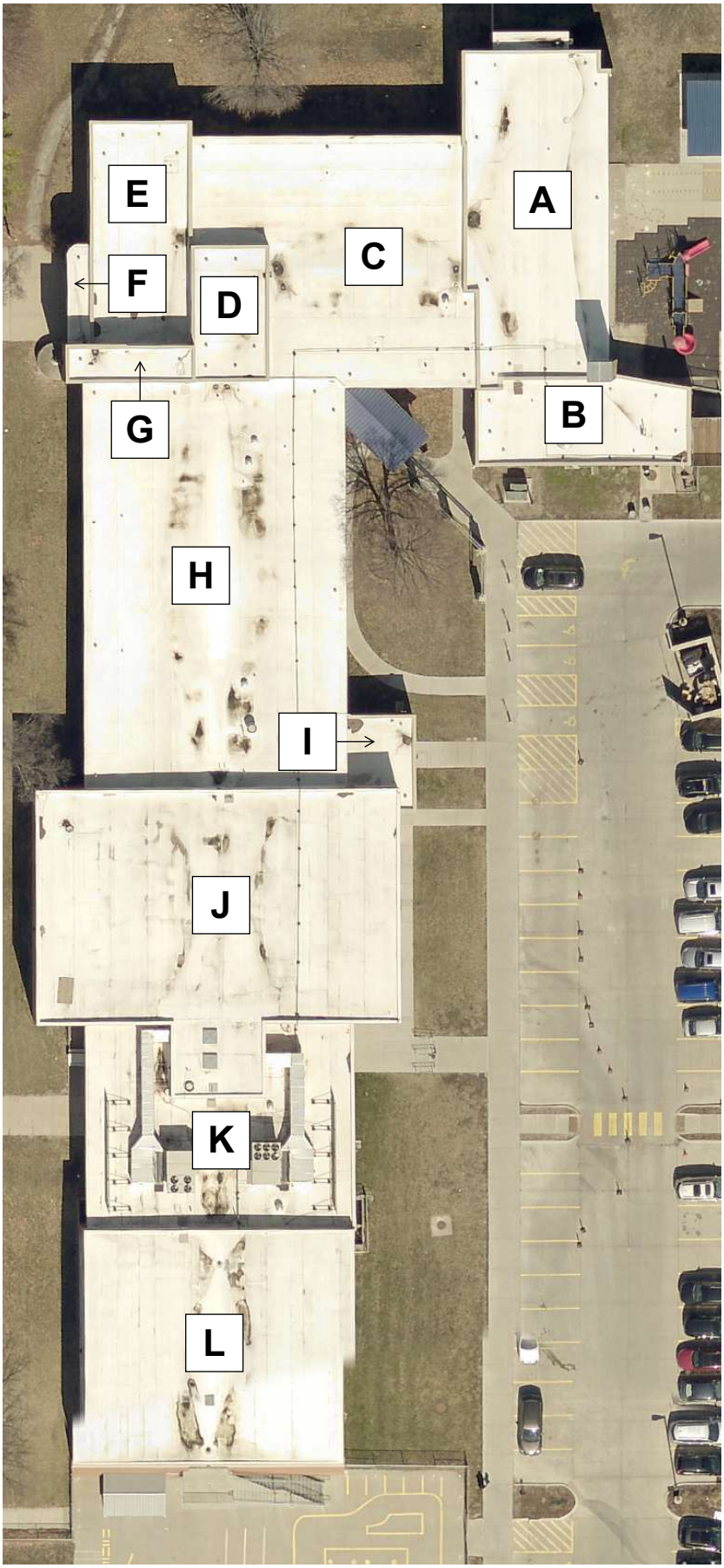
BISHOP ENGINEERING +

McKEE EDUCATION CENTER

EXHIBIT

PROJECT # 230286-62

DATE 1/26/2024



N

bbs ARCHITECTS ENGINEERS

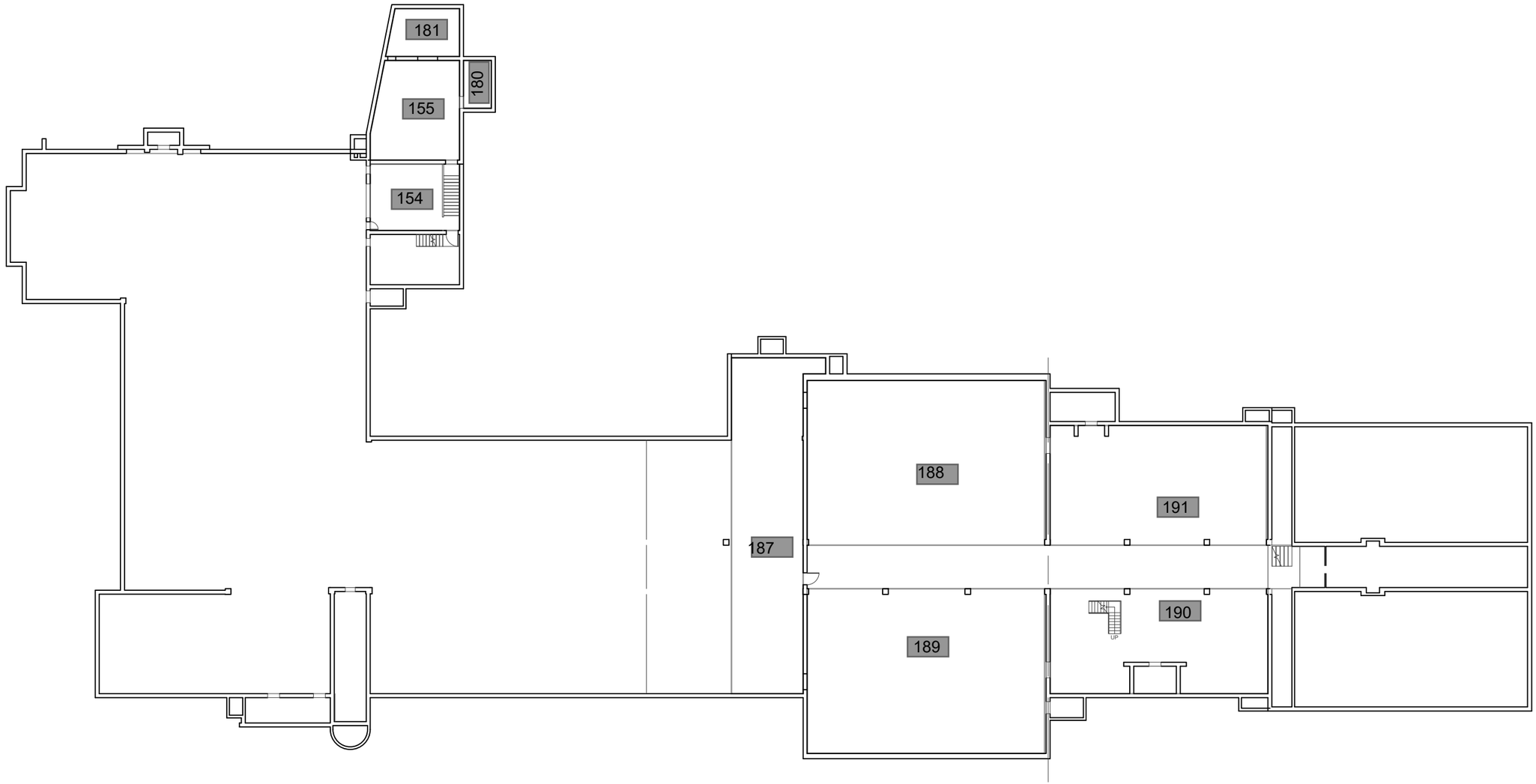
23055 - DMPS Facility Conditions Assessment
Roof Identification Image
McKee Education Center
January 23, 2024

MCKEE EDUCATION CENTER

2116 E 39TH COURT
DES MOINES, IOWA 50317

FOUNDATION

NORTH

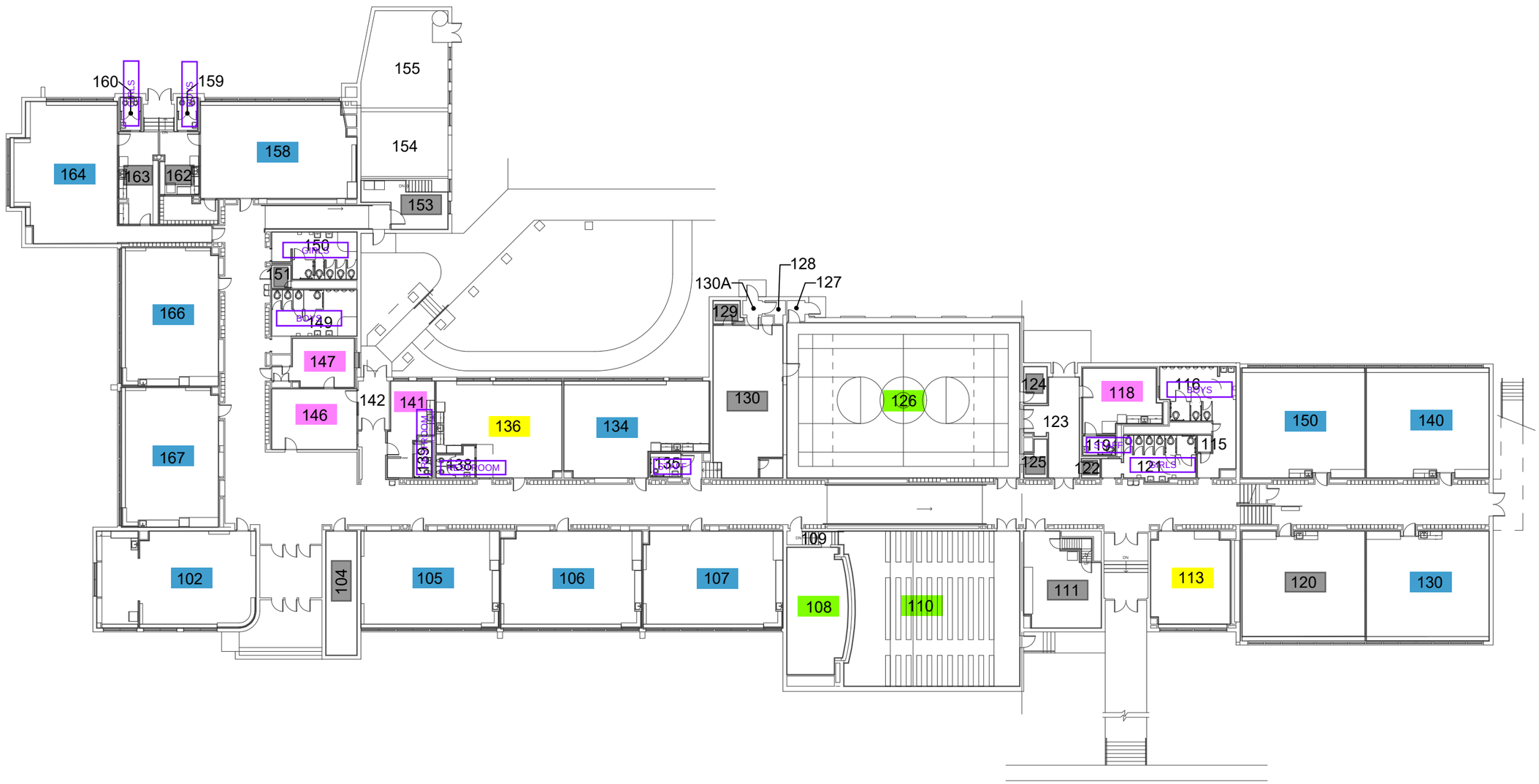


MCKEE EDUCATION CENTER

2116 E 39TH COURT
DES MOINES, IOWA 50317

FIRST FLOOR

NORTH



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SECNOND FLOOR

NORTH