DMPS FACILITY ASSESSMENT | CAPITOL VIEW ELEMENTARY

10.11.2023

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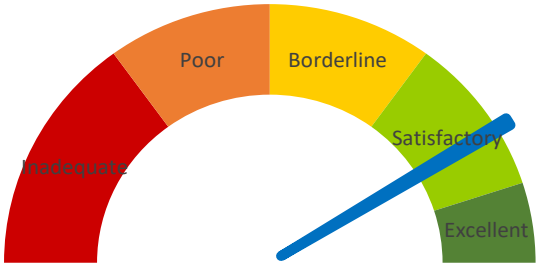

REPORT ORGANIZATION

COVER SHEET

REPORT ORGANIZATION

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- Building Summary
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BUILDING DATA RECORD

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RECOMMENDED PROJECTS AND PRIORITIES
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SITE PLANS
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EXECUTIVE BUILDING SUMMARY

Capitol View Elementary's on-site facility conditions assessment was conducted on October 11, 2023, 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.

There are many maintenance items recommended for Capitol View Elementary. General maintenance of Capitol View appears to need increased either with regular small maintenance or as dedicated projects to address many items that are showing wear and age. Some of these items include Window screen repair, door hardware adjustments, increased regular elevator maintenance, and AHU filter replacement are all recommended maintenance items needing to be addressed within the next year, and continued regularly thereafter. These and other maintenance recommendations are further described within this report.

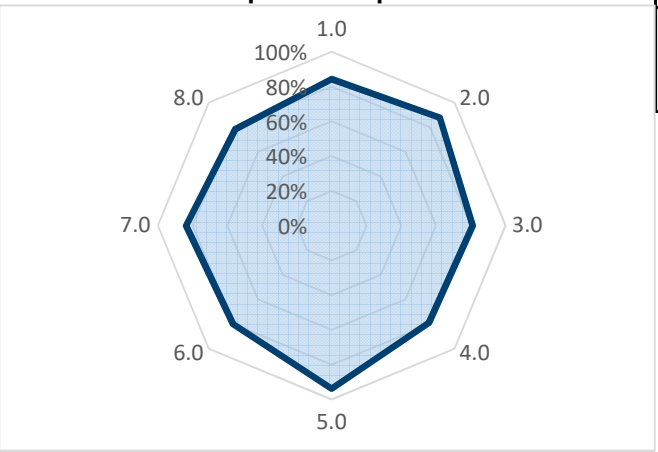
The potential projects for Capitol View recommended for action within the next 1-2 years are as follows:

- Air Handling Unit (AHU) 1 Replacement
- Exterior sealant repair
- Parking and Sidewalk Improvements
- Exterior Receptacle Weatherproofing
- AHU Fan VFD Replacement
- Ceiling Tile Replacement, Partial
- Ground Telecom

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	165	139	2.00	330	278	84%	Satisfactory
2.0	Environment for Education	370	325	0.60	222	195	88%	Satisfactory
3.0	Exterior Envelope	95	77	3.00	285	231	81%	Satisfactory
4.0	School Site	100	79	1.50	150	119	79%	Satisfactory
5.0	Structural Conditions	145	136	1.30	189	177	94%	Excellent
6.0	Mechanical Systems	670	537	0.80	536	430	80%	Satisfactory
7.0	Electrical Systems	375	314	0.75	281	236	84%	Satisfactory
8.0	Elevator Conditions	65	51	1.00	65	51	78%	Satisfactory
Total					**2,058**	**1,715**	**83%**	**Satisfactory**

Capitol View Elementary
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 disciplines, Capitol View Elementary scored a building health rating of 83%, or "Satisfactory", per the scale described within this report. Per the graph shown on the cover page of this report, scores within the "green" range are considered positive scores. Capitol View Elementary is within this positive range. Improvements to the school site, mechanical systems, and elevator, as further detailed in the report, would increase this rating to "Excellent".

Building Data Record

Building Name: Capitol View Elementary

Date: 10.11.2023

Address: 320 East 16th Street
Des Moines, IA 50316

High School Feeder System: East High

Building SF: 75,740 SF

Site Acreage: 5.79 Acres

Date(s) of Construction: 2001

Date(s) of Roof Replacement: None - Original roof

Current/Scheduled Projects: Dropoff - 2024
Acoustics in Gym and Cafeteria - 2024
Grease Interceptor - 2024
Restroom Upgrades - Multi-user RR and finishes focused - 2024

Existing Building Data:

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

Site Items:

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

Energy Source:

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

Cooling:

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

Heating:

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

Floor/Roof Structure:

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

A | Architectural, Programming

ASSESSOR: Tim Bungert, Kaela Shoemake

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	2	4	Mobile projector/AV cart is cumbersome, and cords could be a tripping hazard. Acoustics are inadequate / reverberation time for sound is very long.
1.3	**Cafeteria** has adequate space, furniture, and acoustics for efficient lunch use.	2	3	6	Acoustic ceiling alone does not provide adequate sound absorption for cafeteria.
1.4	**Music room** is adequate for providing introductory music instruction.	2	4	8	Music room is in great condition. The band / orchestra room needs better storage, sound absorption, and acoustic isolation from the mechanical room next door.
1.5	**Art room** has sufficient accommodations for program.	2	5	10	
1.6	**Library/Resource/Media Center** provides appropriate and attractive space.	1	2	2	No access to daylight. Decommissioned checkout desk creates awkward space usage. Furniture and finishes do not create an environment that promotes creativity and collaboration.
Core Classroom					
1.7	Classroom space permits arrangements for **small group activity.**	3	4	12	Smallest classrooms on both levels struggle to create breakout spaces comparable to larger classrooms.
1.8	**Student storage space** is adequate.	2	5	10	
1.9	**Teacher storage space** is adequate.	3	4	12	Storage space is generally sufficient. Condition of metal and plastic laminate casework and storage is chipping and sagging throughout all classrooms.
1.10	Classroom **acoustical treatment** of ceiling, walls, and floors provide effective sound control.	3	5	15	

A | Architectural, Programming

ASSESSOR: Tim Bungert, Kaela Shoemake

		Weight Factor	Rating	Points	Comments
1.11	**Classroom power and data receptacles** are located to support current classroom instruction.	4	4	16	
1.12	Educational **technology** supports instruction.	4	5	20	
Administration					
1.13	**Conference/Private meeting rooms** are adequate for large and small meetings.	1	4	4	Many breakout and intervention spaces for groups of students throughout the building. Spaces for adult meetings are not as common.
1.14	**Main office** has a check-in and waiting area.	2	5	10	
	TOTAL			139	

A | Architectural, Interior

ASSESSOR: Tim Bungert, Kaela Shoemaker

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	2	2	Outside of instructional and intervention spaces, there are very few places for students to gather that support creative collaboration.
2.3	Areas for students to i**nteract are suitable to the age group.**	1	3	3	Small group spaces within classrooms and intervention rooms are appropriate for elementary-aged children, but interaction opportunities outside of these rooms are very limited.
2.4	Large group areas are designed for effective **management of students.**	2	5	10	
2.5	**Furniture Systems** are in good or like new condition.	1	4	4	Furniture is in generally good condition. Some staff furniture and student desks are showing age with minor cosmetic damage/wear.
2.6	**Color schemes**, building materials, and decor are **engaging and unify** the school character.	1	2	2	Many classroom teachers have decorated their spaces to create engaging environments. Outside of classrooms, most spaces lack interest and personality.
2.7	Windows and skylights provide access to **adequately controlled daylight** for regularly occupied spaces.	3	4	12	The windows in the Pre-K classrooms are extremely small and provide very little daylight to the space. All other classrooms have sufficient access to daylight with adequate control.
2.8	Windows provide access to **quality views** (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	4	12	The windows in the Pre-K classrooms do not provide sufficient quality views for students and staff.
2.9	**Lighting has proper controls** to provide the required light levels for various teaching and learning needs.	2	3	6	Classroom lighting is LED and adequate for general use. All classrooms have two-zone lighting control, but no dimming control. We noted many instances of fabric or paper coverings installed over light fixtures, especially in councilor and intervention rooms.
2.10	**Staff dedicated spaces** include conference space, work space, and dedicated restrooms.	1	4	4	No small conference room provided. Meeting spaces are limited to large conference room or student intervention classrooms.

A | Architectural, Interior

ASSESSOR: Tim Bungert, Kaela Shoemaker

		Weight Factor	Rating	Points	Comments
2.11	**Main office** is visually connected to the entry as is welcoming to students, staff, and guests.	2	4	8	A few graphics, but overall lacking in color or other character-defining elements. Reception desk immediately inside the entrance has visibility to the main entry, but that view is very limited for the rest of the office suite.
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	0	0	No mothers room provided.
Maintainability					
2.14	**Floor surfaces** are durable and in good condition.	1	4	4	Normal wear on most floor surfaces. Some minor damage in high traffic areas.
2.15	**Ceilings** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	3	3	Water stains on acoustic ceiling tiles are present in many classrooms, generally along exterior walls. Acoustic ceilings in some spaces showing sings of sagging/moisture absorption.
2.16	**Walls** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	4	4	Normal wear on some wall surfaces, but generally in good condition.
2.17	**Built-in casework** is designed and constructed for ease of maintenance.	1	3	3	Casework in many rooms is showing its age through normal wear. Laminate countertops in some rooms have damage from water absorption.
2.18	**Doors** are either solid core wood or hollow metal with a hollow metal frame and well maintained.	3	4	12	Normal wear on wood doors, but generally in good condition .
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	4	8	Partitions show signs of graffiti removal, but are secure. Smoothed faced and light colored HDPE, as existing, tend to show more wear than textured material.

A | Architectural, Interior

ASSESSOR: Tim Bungert, Kaela Shoemaker

		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	4	8	Most vision lights are not covered. Door vision lights are wired glass, not tempered glazing per current building code requirements.
2.26	**Glass** is properly located and protected to prevent accidental injury.	2	5	10	Wire glass is used in many areas. Current building codes would require tempered or laminated glazing instead.
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	5	25	
2.30	**Stairs (interior and exterior)** are well maintained and in good condition meeting current safety requirements.	5	4	20	Rubber stair nosings show normal wear.

A | Architectural, Interior

ASSESSOR: Tim Bungert, Kaela Shoemaker

		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	Gymnasium has one damaged emergency light with no protective cage.
	TOTAL			325	

A | Architectural , Exterior

ASSESSOR: Matthew Gaul, David Unick

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	4	8	Appearance is plain and somewhat dated, but not unattractive or obviously in need of maintenance.
Maintainability					
3.2	**Roofs** appear sound, have positive drainage, and are water tight.	3	4	12	Roof not fully adhered everywhere, but extent is minor and does not show evidence of damage minor ponding. Drains need to be cleaned.
3.3	**Roof access** is safe for all roofs.	3	5	15	
3.4	Exterior **window sealant** is fully intact without cracks or gaps.	3	4	12	Sealant at portions of building is loose, crazed, or missing. Other portions appear to have been replaced.
3.5	**Glazing** is low-e coated, insulated, and overall in good condition.	1	4	4	Insulated and tinted glazing. Age of building makes low-e coating unknown .
3.6	**Operable windows** are functional and safe. Operable portion of window fully seals when closed without gapping or leaking.	2	4	8	Windows appear to seal tightly to frames. Missing or damaged interior screens at a few windows.
3.7	**Exterior doors** are of durable material requiring minimum maintenance.	2	4	8	Three doors either do not latch or are marked by staff that they do not latch. Finishes are generally good, but some doors have cosmetic damage.
3.8	**Exterior walls** are of material and finish requiring little maintenance,	1	4	4	Limited areas of brick damage/spalling. Base of wall flashing appears to be oozing out of the wall in many locations. Sealant oozing from horizontal metal panel joints at west entry.
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	1	1	2 doors do not latch.
	TOTAL			77	

C | Civil

ASSESSOR: Jack Gorman

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	5	5	Site drains away from building, minor drainage issue around southeast intake on site.
4.2	**Parking areas** are in good condition.	5	4	20	Majority of parking pavement in east lot in good condition, south lot pavement in fair condition with some subsurface drainage/moisture issues, ADA parking stalls and curbs in W lot in need of immediate replacement. Curbs around the N side islands require maintenance.
4.3	**Drive areas** are in good condition.	3	4	12	Curbs around the N side islands require maintenance.
4.4	**Sufficient on-site, solid surface parking** is provided for faculty, staff, and community.	1	5	5	East and south lots had adequate parking at time of site visit, west lot had plenty of open parking spaces in southwest corner.
4.5	**Sidewalks** around the facility are in good **condition.**	1	4	4	Most of sidewalk around playground and school in good condition. Tripping hazards were observed in the northeast corner of playground just outside of building, on sidewalk north of building entrance, and on sidewalk of south entrance of east parking lot.
4.6	**Sidewalks are located** in appropriate areas with adequate building access.	3	4	12	Site was easily accessible by sidewalks, however there was a building exit not connected to sidewalk on the north side of the building.
4.7	**Hard surface** playground surfaces are in good condition.	1	4	4	Asphalt of playground area in need of crack sealing. With minor maintenance, can get 5 more years before eventual replacement.
4.8	**Fencing** around the site is in good condition.	1	5	5	Minor repairs needed to west side of perimeter fence, a few broken bottom bars and bowed out fence in a couple of locations.
4.9	**Trash enclosure** is in good condition.	1	3	3	Enclosure is intact, but is very weathered and not constructed of durable materials.
4.10	**Utilities** are in newly constructed conditions and placed in suitable locations.	1	3	3	4 intakes on site in need of repair (2 in west lot, 1 in east and south lots), open space intakes were in good condition and appeared to be functioning properly.

		Weight Factor	Rating	Points	Comments
4.11	**Site has sufficient room** for both building and parking expansion.	1	2	2	Nearly all the available space on site has been utilized but some limited areas would be available for building expansion.
4.12	Site has **onsite bus and parent pickup** up with adequate length, good separation and general good site circulation.	1	4	4	Site has bus pick up/drop off on north side of building, east and south lots have pick up/drop off lanes for parents. Parking is also available on the street on the east and south sides of site for parents.
	TOTAL		79		

S | Structural

ASSESSOR: Niles Quick

5.0 Structural Conditions

		Weight Factor	Rating	Points	Comments
Foundations					
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	N/A	0	
5.4	**Stoops** appear to be in good condition.	1	4	4	One stoop had some noticeable spalling and cracking. See comment on plan view for location.
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	4	8	The brick veneer had cracking and/or spalling at some lintel jamb locations. There was a portion of perimeter wall where the CMU stem wall supporting the brick veneer was visible. In this area, the CMU stem wall had some mortar joints failing and a small amount of settlement.
5.8	**Lintels** appear in good condition (no visible deflection or rust).	1	5	5	
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	N/A	0	
5.16	**Canopies** appear to be in good condition.	1	5	5	
5.17	**Loading dock concrete** appears to be in good condition.	2	3	6	Dock slab had a decent amount of cracks (some visible spider cracks as well).
5.18	**Mechanical screening** appears to be in good condition.	2	5	10	On grade screening for MEP equipment. Appears to be in good shape. Some of the screen post baseplates had grout under then, whereas others did not.
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	5	5	Appears to be a hardened space in the building as there is a tornado sign at the hearing testing booth room.
5.23	The hardened area appears consistent with the **ICC 2018 code.**	1	3	3	It is unclear if this meets the ICC code from the existing structural drawings.
	TOTAL			136	

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger, Holly Elbert

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	3	15	Concerns with VAV maintaining adequate ventilation to all occupied spaces, particularly during heating operation and shoulder periods. This concern is exacerbated by the observation of very low outdoor air flow rates at AHUs.
6.4	**Ventilation** is provided during occupied hours.	5	2	10	Based on observations from local controllers on installed airflow measuring stations, it appears that all three major air handling units were operating with significant less than expected minimum outdoor airflows for occupied operation.
6.5	**Outdoor air intake locations** are appropriate.	4	4	16	One relief discharge is relatively close to the intake for the same unit (appears to be code compliant, but closer than ideal). Other observed intakes and reliefs/exhausts appear reasonable.
6.6	Appropriate **levels of exhaust** are provided for areas requiring this such as restrooms, janitor's closets and locker rooms.	5	5	25	
6.7	**Building pressurization.** The design takes into account the balance between ventilation and exhaust air	2	5	10	
6.8	**Major HVAC Equipment** appears to be within it's acceptable **service life.**	5	3	15	Boilers are likely nearing their expected useful lives as are pumps (both heating and chilled water). Air handling units 2 and 3 both appear be in good condition and likely have significant remaining useful life. Air handling unit 1 has more significant issues and will require replacement sooner.
6.9	**Cooling loads** are within equipment operational capacity.	5	5	25	
6.10	**Heating loads** are within equipment operations capacity.	5	5	25	

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger, Holly Elbert

		Weight Factor	Rating	Points	Comments
6.11	**Dehumidification** is provided and addressed humidity loads in incoming outside air.	3	4	12	There is a lack of humidity sensors for control of indoor humidity - no significant concerns with system operation identified.
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	Dual backflow preventers in parallel.
6.14	**Domestic hot-water systems** are within equipment operational capacity.	5	5	25	
6.15	Domestic **hot-water recirculation systems** allow for hot-water at fixtures within a reasonable amount of time.	3	3	9	Slow to get hot water at restroom sink (over 1 minute).
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	1	3	New grease interceptor will be installed in summer of 2024 - current hydro mechanical grease interceptor is not adequate for DMWWRA requirements.
6.18	**Roof drainage** systems are sized appropriately and overflow drainage systems are installed.	5	5	25	
6.19	**Restroom fixtures** comply with DMPS current preferences and are in good condition.	3	3	9	Project is planned for summer of 2024 to replace plumbing fixtures in several restrooms. Current fixtures are in adequate condition, however DMPS current standards are not met.
Maintainability					
6.20	Equipment is provided with **adequate service clearance** to allow for regular maintenance	3	5	15	

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger, Holly Elbert

		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with **coil pull space.**	2	0	0	Appears casing re-work was required to replace coil in AHU-1.
6.22	**Filter** sizes are standard and filter types are standard.	2	4	8	Air handling unit 2 has bypass around the filters in the current configuration - filter rack should be modified as soon as feasible.
6.23	**Equipment mounting heights** are reasonable.	3	5	15	
6.24	**Floor surfaces** throughout the mechanical room are non-slip and are dry.	2	5	10	
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	3	6	Multi-purpose pump discharge valves used for isolation on discharge of pumps may not provide reliable isolation function after 20 years or more of service.
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	Hose Bibb for chiller is behind gas service, but is accessible.
6.28	**Fall protection** is provided for equipment within 15 ft of roof edge.	2	3	6	Two exhaust fans are within 10 feet of roof edge without fall protection.
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: Corey Metzger, Holly Elbert

		Weight Factor	Rating	Points	Comments
6.31	Building is fully **sprinklered.**	5	3	15	Two-story portion of building is sprinklered, but single story areas are typically not.
6.32	**Domestic hot-water temperature** at lavatories used by students or staff is provided with a thermostatic mixing valve and adjusted properly.	5	3	15	Tempering valves are provided at sensor operated wash sinks but no tempering valves were present at the individual sinks in the classrooms.
6.33	**Emergency eye-washes and tempering valves** are located where required.	5	0	0	None located. DMPS to confirm if these are required for custodial spaces, as cleaning agents may not require eye washes.
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			537	

E | Electrical

ASSESSOR: David Carlson

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	
7.3	**The MDP environment** is safe, has adequate clearances and exiting.	3	3	9	Door swing is into the room rather than exiting. Room being utilized for storage.
7.4	The **MDP** appears serviceable.	4	4	16	MDP installed in the last 10-20 years. Parts are still available for maintainability.
7.5	The MDP is **maintainable.**	3	5	15	
7.6	The MDP will support **future expansion.**	4	3	12	Calculations based on breaker space used versus available space for expansion results in approximately 115% expansion capacity.
7.7	The Distribution Panel **environment is safe**, has adequate clearances and exiting.	4	N/A	0	N/A - No distribution panels outside of MDP.
7.8	The Distribution Panel appears **serviceable.**	4	N/A	0	N/A - No distribution panels outside of MDP.
7.9	The Distribution Panel is **maintainable.**	4	N/A	0	N/A - No distribution panels outside of MDP.
7.10	The Distribution Panel will support **future expansion.**	4	N/A	0	N/A - No distribution panels outside of MDP.

E | Electrical

ASSESSOR: David Carlson

		Weight Factor	Rating	Points	Comments
7.11	**Electrical panels and disconnect switches** are safe, serviceable, and maintainable.	2	4	8	Panels observed are both serviceable and maintainable, but do not meet clearance requirements due to rooms being utilized for storage.
7.12	Building has adequate and appropriately located, **safe exterior power** to allow for regular maintenance activities.	1	2	2	Exterior receptacles present, but WR covers broken.
7.13	Building has adequate **exterior lighting** to promote safety and security of the property.	5	4	20	Could use additional exterior light vic. Classroom 140-145.
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	Room is neatly maintained, but volume of abandoned and/or unlabeled equipment is large. 62.5 µm fiber is abandoned in place. Provisions for copper communications are still in place but not utilized, and are not clearly marked.
7.15	MDF Equipment Racks have adequate space for **future growth.**	4	4	16	
7.16	MDF is equipped with Liebert UPS to back up main switch(es), providing **backup power** to necessary equipment in the event of a power outage.	5	5	25	Panel E1A fed from backup generator. Liebert UPS is fed from E1A and provides UPS power to Panel E2A. Both panelboards are lightly loaded.
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	5	5	
7.19	MDF employs up-to-date **network cabling.**	2	4	8	Horizontal cabling consists of Category 5e cables.
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with **fiber optic cabling.**	1	5	5	

E | Electrical

ASSESSOR: David Carlson

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate **grounding busbar capacity.**	2	3	6	Adequate capacity on grounding busbar, but equipment connections not present.
7.22	Building is equipped with an **addressable fire alarm system.**	5	5	25	
7.23	Building is equipped with an **access control system.**	5	2	10	7/16=44%
7.24	Building is equipped with a **CCTV system.**	5	5	25	
7.25	Building is equipped with an **intercom system.**	4	5	20	
7.26	Building is equipped with a **master clock system.**	4	4	16	Existing Simplex system is serviceable but does not match DMPS standard programming (Primex). System is in adequate condition but the Simplex system is more cumbersome to maintain.
	TOTAL			314	

EV | Elevator

ASSESSOR: Mike Brown

8.0 Elevator Conditions

		Weight Factor	Rating	Points	Comments
Design					
8.1	**Size** meets minimum as directed by ADA.	2	5	10	
8.2	**Control protections and signals** meet ADA standards.	2	5	10	
8.3	**Signage** meets code requirements.	1	5	5	Good with the exception of the machine room door.
Operation and Safety					
8.4	Elevators have **proper level accuracy and door times.**	1	5	5	
8.5	**Safety devices** are in place and operable.	1	5	5	All working correctly except the door restrictor does not work between floors.
Condition and Maintainability					
8.6	**Equipment is easily accessible** for periodic maintenance.	1	3	3	Scrubber blocking door. A mop and bucket are stored in the machine room in violation of code. The machine room door does not latch when closed eliminating the need for a key to access.
8.7	**Equipment** is at an acceptable point in the life cycle, and does not contain obsolete parts.	2	3	6	
8.8	**Finishes** are adequate and maintainable.	1	3	3	Finishes in fair condition.
8.9	**Maintenance** is adequate.	1	3	3	Minimal maintenance records. The Maintenance control plan is not filled out. There are no fire service test records.
8.10	**Testing** is up to date, and all **record and logbooks** are present and filled out.	1	1	1	Testing is past due.
	TOTAL			51	

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

Gymnasium Light Repair	There is a single emergency light on the south wall of the gym that does not have a protective cage and is damaged. Repair and install a protective cage.
Interior Door Latching and Signage	Repair the elevator machine room door latch. Mark door as required for elevator machine rooms.
Exterior Door Adjustment	Adjust the following doors so they latch when closed from any position: near room 124, near room 133, and room 135.
Window Screen Repair	Replace damaged window screens in three level 2 classrooms.
AHU Filter Replacement	The filters in AHU2 are the wrong size, allowing air to bypass around them. Install correctly sized filters.
Exterior Light Installation	One Exterior light should be added to light the exterior area around classrooms 140 - 145.
Exterior Receptacle Replacement	Replace broken and missing exterior in-use weatherproof receptacle covers and provide GFCI protection.
Ground Telecom	Add grounding busbar connections to all telecom equipment racks and cable trays.

Elevator Maintenance Increase	State required testing is past due and should be completed. The cost for this is approximately $500.	

1 - 2 Year Priority

		Project Cost
Ceiling Tile Replacement	Replace water stained ceiling tiles in classrooms. Approximately 250 SF. Explore above ceiling conditions for signs of possible water infiltration.	$10,000
Exterior Sealant Replacement	Replace sealant at masonry soft joints and perimeter of windows on approximately half of the building exterior.	$8,000
Exterior Masonry Repair	Tuckpoint brick: outside room 113 and 149/153. Replace spalled brick: outside room 134. 32 SF total	$6,000
Parking Pavement Replacement	Replace 166 SY of parking lot pavement. For location, refer to civil site plan exhibit found in the appendix of this report.	$25,000
Intake Repair	Repair walls of two intakes - one in west parking lot and one in east drive area. For specific locations, refer to civil site plan exhibit found in the appendix of this report.	$11,000
Sidewalk Replacement	Replace 126 SY of sidewalk pavement. For locations, refer to civil site plan exhibit found in the appendix of this report.	$25,000
Curb Repair	Repair 155 LF of 6" PCC curb across site. For locations, refer to civil site plan exhibit found in the appendix of this report.	$12,000
Exterior Concrete Slab Repairs	Repair cracks and areas where spalling of concrete is occurring in the following locations: 1. Loading dock outside of room 111. Roughly 260 sq. ft. of concrete here. Approx. 20 L.F. of cracks. Approx. 10 SF x 2" deep spalled concrete. 2. Stoop in front of exterior door near room 133. Roughly 40 sq. ft. of concrete here. Approx. 16 L.F. of cracks.	$6,000.00

AHU-1 Replacement	Issues were apparent with AHU1 from coil freezing and apparent leaks or condensation at base of unit. Repairs to unit required destructive modifications to unit. Based on this and age of unit, replacement is recommended.	$10,000
AHU Fan VFD Replacement. AHU-1, 2 and 3	AHU drive appear to be original from project in approximately 2000. Based on this, drives are at or beyond expected useful life. Alternative option may be to maintain replacement drive of each size to allow for timely replacement in the event of a drive failure.	$13,000
	Total 1-2 Year Project Costs	**$126,000.00**

3 - 4 Year Priority

		Project Cost
Casework Replacement	Replace casework in all classrooms, including standalone metal units; 350 LF and 40 sinks. New casework to be plastic laminate with solid surface counter.	$590,000
Parking Pavement Replacement	Replace 625 SY of parking lot pavement and install a rock base under the 416 SY experiencing subsurface moisture issues. For locations, refer to civil site plan exhibit found in the appendix of this report.	$120,000
Intake Repair	Repair walls of two intakes - one in west parking lot and south drive area. For locations, refer to civil site plan exhibit found in the appendix of this report.	$12,000
Boiler and Pump Replacement	Replace boiler, heating water pumps and chilled water pumps. Units are likely nearing end of useful life and replacement should be planned in the relatively near future. With three operational boilers that appear to provide some redundancy for operation, replacement in short term is likely not critical.	$13,000
Water Heater Replacement	Replace Water Heaters. New water heaters to supply at 140. New central thermostatic mixing valve should be provided for this operating condition to minimize potential for scalding.	$45,000
Lighting Control Installation	Areas that appear to benefit most from added lighting controls are counseling and intervention spaces. Recommended rooms are 124, 125, 133, and 144.	$20,000
	Total 3-4 Year Project Costs	**$800,000.00**

5 - 10 Year Priority

		Project Cost
Interior Refinish	Classroom and corridor materials lack engagement for students and staff, excludes Gym. Replace these finishes at end of material life. Replace 72,400 SF VCT flooring with new and 72,400 SF suspended ceiling tiles with new. Repaint 14,000 SF corridor walls. See comments for assessment item 2.6.	$2,400,000
Roof Replacement	Remove 56,200 SF of PVC roofing and insulation over all roof areas. Install code compliant insulation and TPO roofing. Approx year: 2029.	$1,800,000
Roof Access Installation	Provide guardrail at roof hatch.	$9,000
Parking Pavement Replacement	Replace 100 SY of parking lot pavement. For location, refer to civil site plan exhibit found in the appendix of this report.	$20,000
Playground Pavement Replacement	Replace 1231 SY of asphalt playground surface. For location, refer to civil site plan exhibit found in the appendix of this report.	$220,000
Regrading	Improve grading around intake on southeast side of site. For location, refer to civil site plan exhibit found in the appendix of this report.	$10,000
Sidewalk Replacement	Replace 8 SY of sidewalk pavement. For locations, refer to civil site plan exhibit found in the appendix of this report.	$7,000
Sprinkler Installation	Install sprinklers in the 1-story portion of building that is currently not sprinklered.	$5,000
	Total 5-10 Year Project Costs	**$4,471,000.00**

Projects Requiring Study

		Design Services Fee
Mother's Room Space	Study to define a private dedicated space for a Mother's Room that includes at least a sink, side table, chair, and privacy door hardware.	$5,000

Media Center Improvements	Re-design or renovation of the space to provide more open and collaborative areas near the corridor as well as breakout space within.	$5,000
Orchestra Room Improvements	Study existing orchestra room location to determine if acoustic and storage improvements are possible in current location.	$5,000
Designated Hardened Area	Tornado signs outside hearing testing booth indicate possible Designated Hardened Area. Study to determine if this is ICC compliant; if not then 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	**$17,500**

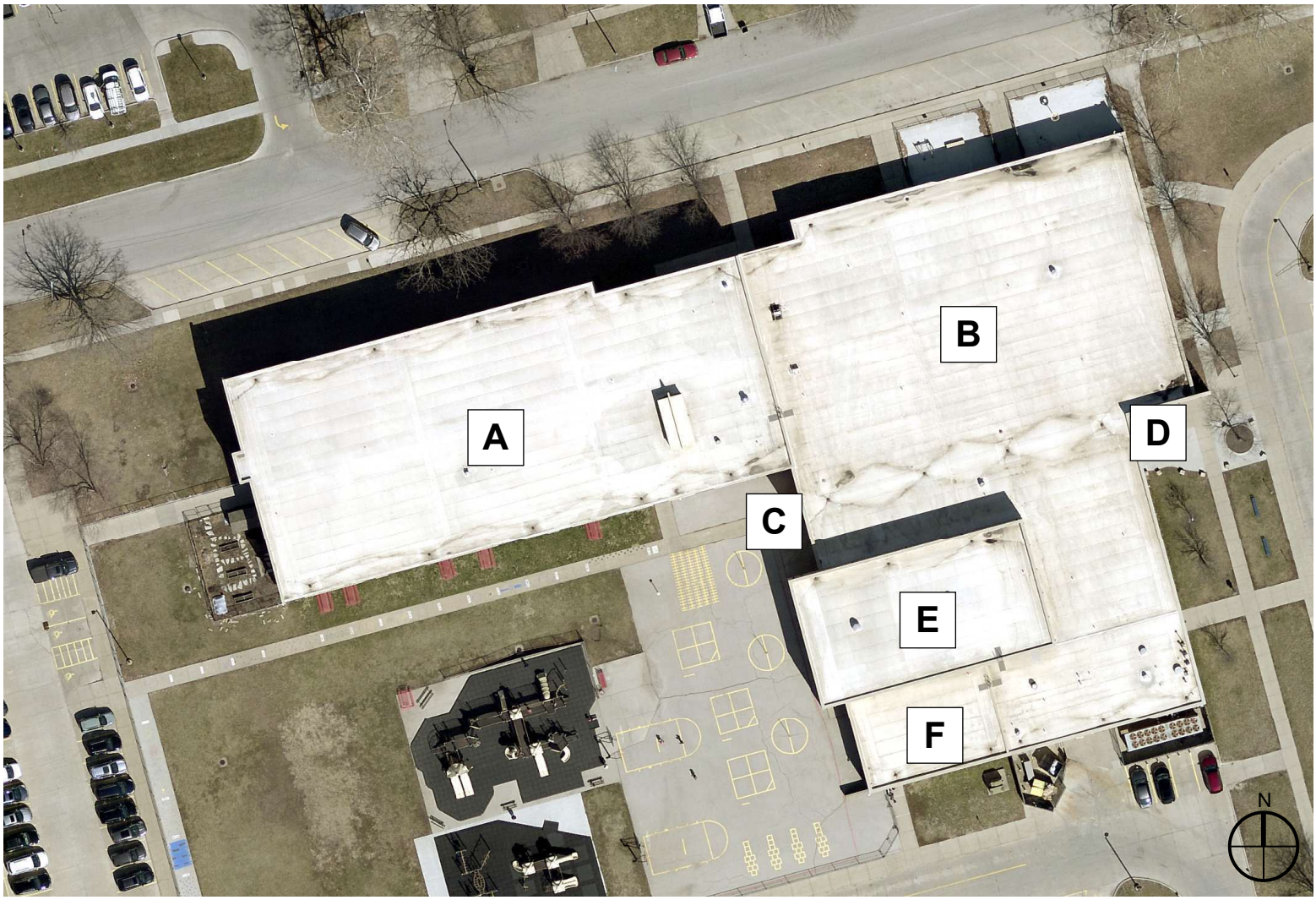
APPENDIX

BISHOP ENGINEERING +

CAPITOL VIEW ELEMENTARY

EXHIBIT

PROJECT # 230286-2
DATE 10-03-2023



bbs ARCHITECTS ENGINEERS

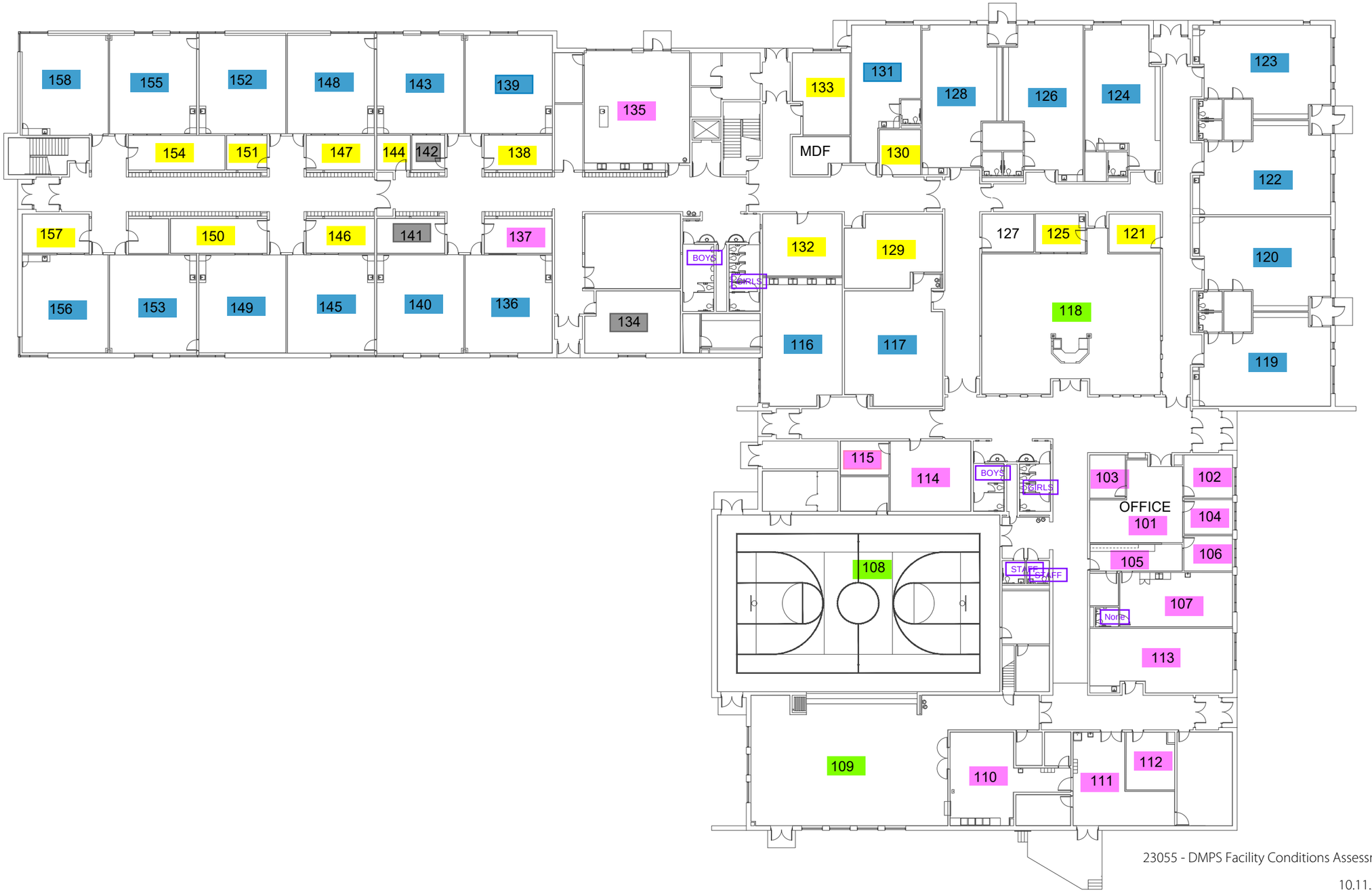
23055 - DMPS Facility Conditions Assessment
Roof Identification Image
Capitol View Elementary
10.11.2023.

CAPITOL VIEW ELEMENTARY SCHOOL

320 E 16TH STREET
DES MOINES, IOWA 50316

FIRST FLOOR

NORTH



- Core Classroom
- Student Support
- Administration
- Large Shared Space
- Other

bbs ARCHITECTS ENGINEERS

23055 - DMPS Facility Conditions Assessment

10.11.2023

CAPITOL VIEW ELEMENTARY SCHOOL

320 E 16TH STREET
DES MOINES, IOWA 50316

SECOND FLOOR

NORTH

- Core Classroom
- Student Support
- Administration
- Large Shared Space
- Other

bbs ARCHITECTS ENGINEERS