DMPS FACILITY ASSESSMENT | HIATT MIDDLE SCHOOL

2.14.2024

ARCHITECTS
ENGINEERS

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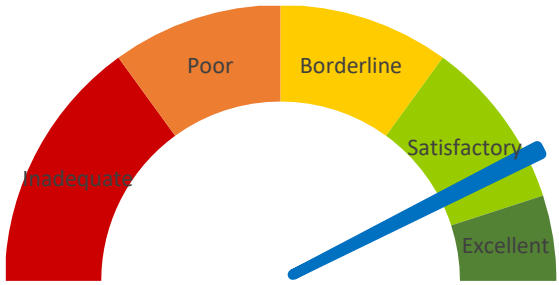


REPORT ORGANIZATION

EXECUTIVE BUILDING SUMMARY

Hiatt Middle School's on-site facility conditions assessment was conducted on February 14, 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.

A summary of the short term maintenance items identified for Hiatt Middle School are: emergency egress clearing, countertop sealant, interior door sealant, door hardware repairs, site maintenance, mixing valve service, secure heat pump filters, gymnasium sign repair, security system repairs, and elevator safety testing. Proactively addressing maintenance items and minor repairs will help extend the overall life of the building and occupant health and comfort.

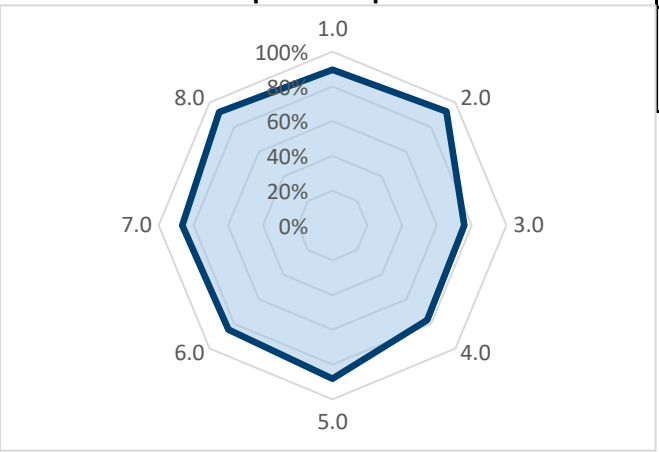
A summary of the recommended projects for Hiatt Middle School to be completed in the next 1-2 years are as follows:

- Restroom Update
- Copper Panel Repair
- Masonry Repointing
- Exterior Steel Refinishing
- Site Improvements
- Flume Replacement
- Brick Lintel Replacement
- Concrete Column Patch
- Stoop Installation
- HVAC Retrofit
- Exterior Lighting Installation

Additional 1-2 year project detail 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	125	112	2.00	250	224	90%	Excellent
2.0	Environment for Education	395	366	0.60	237	220	93%	Excellent
3.0	Exterior Envelope	95	72	3.00	285	216	76%	Satisfactory
4.0	School Site	100	77	1.50	150	116	77%	Satisfactory
5.0	Structural Conditions	135	119	1.30	176	155	88%	Satisfactory
6.0	Mechanical Systems	670	568	0.80	536	454	85%	Satisfactory
7.0	Electrical Systems	450	389	0.75	338	292	86%	Satisfactory
8.0	Elevator Conditions	65	60	1.00	65	60	92%	Excellent
Total					**1,971**	**1,676**	**85%**	**Satisfactory**

Hiatt Middle School
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 Hiatt Middle School scored a building health rating of 85% 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. Hiatt Middle School is well within this positive range. Improvements to the exterior envelope and school site, as described in this report, would make the largest impact in increasing the score to "Excellent".

Building Data Record

Building Name: Hiatt Middle

Date: 2.14.2024

Address: 1430 E University Ave
Des Moines, IA 50316

High School Feeder System: East High

Building SF: 109,879 SF

Site Acreage: 7.42 Acres

Date(s) of Construction: 1925, 1990, 2011 Renovation

Date(s) of Roof Replacement: 2000, 2012

Current/Scheduled Projects: Upgrade Electrical Panels/wiring - Replace three panels and cloth wrapped wiring on the first floor - 2024
Flooring Asbestos Removal - 2024
Acoustics in gym and café - 2025

Existing Building Data:

- [x] Egress Plans
- [x] Original Docs
- [x] Major Renovations and Additions
- [x] 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
- [x] Fluid Cooler

Heating:

- [ ] Gas/Electric RTU or DOAS
- [x] 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
- [x] Metal
- [ ] Wood
- [ ] Other

Floor/Roof Structure:

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

A | Architectural, Programming

ASSESSOR: Kaela Shoemaker

1.0 Educational Adequacy

		Weight Factor	Rating	Points	Comments
General					
1.1	**Floor materials** are appropriate for space type.	1	5	5	
Elective/Secondary Classroom					
1.2	**Gymnasium** is adequate for providing physical education programming.	3	4	12	Gymnasium has adequate bleacher seating along one side with basketball hoops and sporting nets that are adjustable/retractable. reverberation time appeared to be slightly over 2 seconds, the recommended amount for gymnasiums. Additional acoustic treatment is recommended.
1.3	Gymnasium is supported by adequate **locker rooms.**	1	4	4	Locker rooms and locker room restrooms appear in adequate condition for limited uses. Lockers are slightly rusted in areas. If use is consistent or increased it would be recommended to replace the lockers. Shower areas are filled with storage and unused. If these are to be usable a renovation is recommended.
1.4	**Cafeteria** has adequate space, furniture, and acoustics for efficient lunch use.	2	4	8	Cafeteria has central columns which make the space less efficient, however furniture and circulation appear to function adequately within the space. Acoustics and finish materials seem to be in good condition and are adequately engaging.
1.5	**Vocal music room** is adequate for providing music instruction.	2	5	10	
1.6	**Instrumental music room** is adequate for providing music instruction, practice, and lessons.	2	4	8	Space appears to be adequate with instrument storage in 2 locations as well as 3 practice rooms. The flooring in the instrumental music room as well as the support spaces is worn, dated, and stained. Window blinds are also showing minor damage, but appear functional.
1.7	**Auditorium** has sufficient arrangement, technology, and acoustics for program.	2	4	8	Space appears adequate with specialty lighting and sound systems present. Chairs are closely spaced, historic, wood chairs. They appear to all be in good condition. Flooring, both in th seating spaces and stage, appear to be in good condition. Walls on all sides have some damage at the top that needs to be corrected. May be signs of water infiltration.
1.8	**Art room** has sufficient accommodations for program.	2	4	8	The second exit was blocked at the time of the assessment by a standalone shelf. This should be relocated to keep both exits open in case of an emergency. Casework is starting to show age and is lacking sealant at the wet areas. Otherwise the space is in good condition with adequate work and storage areas.
1.9	**Science classrooms** have sufficient access to water, gas and equipment for program.	2	5	10	
1.10	**Family Consumer Science** classrooms have sufficient accommodations for program.	2	5	10	

A | Architectural, Programming

ASSESSOR: Kaela Shoemaker

		Weight Factor	Rating	Points	Comments
1.11	**Industrial Arts** space has sufficient accommodations for program.	2	N/A	0	
1.12	**Library/Resource/Media Center** provides appropriate and attractive space.	1	4	4	Overall the space is engaging with access to daylight and group working spaces. The furniture could have more variety in postures for better collaboration or individual work. The circulation desk is showing signs of age and wear. The plastic laminate is chipping at most all corners and edges. It does appear underutilized and could be a re-imagined space.
Core Classroom					
1.13	Classroom space permits arrangements for **small group activity.**	2	5	10	
1.14	**Student storage space** is adequate.	1	5	5	
1.15	**Teacher storage space** is adequate.	2	5	10	
1.16	Classroom **acoustical treatment** of ceiling, walls, and floors provide effective sound control.	3	5	15	
1.17	**Classroom power and data receptacles** are located to support current classroom instruction.	4	4	16	5 of 35 classrooms appear to have inadequate power access. Power strips with extension cords are typically used to bring power to the center of classrooms. This causes minor tripping hazards throughout the classroom circulation space. Power posts or flat under carpet electrical systems could be options to increase power access to the center of these rooms.
1.18	Educational **technology** supports instruction.	4	5	20	
Administration					
1.19	**Conference/Private meeting rooms** are adequate for large and small meetings.	1	5	5	
1.20	**Main office** has a check-in and waiting area.	2	5	10	The main office functions are split into 2 areas, a secure entry, receptionist and Principal's office, and a centralized office space with meeting rooms and student support administrators.
	TOTAL			178	

A | Architectural, Interior

ASSESSOR: Kaela Shoemaker

2.0 Environment for Education

Design

		Weight Factor	Rating	Points	Comments
2.1	**Traffic flow** is aided by appropriate foyers and corridors.	2	5	10	
2.2	Communication among students is enhanced by **common areas.**	2	5	10	
2.3	Areas for students to **interact are suitable to the age group.**	2	5	10	
2.4	Large group areas are designed for effective **management of students.**	2	4	8	Cafeteria has large central columns that make this space less than ideal but still functional and able to be monitored and managed.
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	4	8	Restrooms and locker rooms are least unified spaces of the building. Corridors, classrooms, and other shared spaces meet this criteria.
2.7	Windows and skylights provide access to **adequately controlled daylight** for regularly occupied spaces.	3	4	12	Cafeteria 1800, Music 1245, and Health 2120 have minor damage to the blinds, the appear to still be operable.
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	All lighting is zoned controlled, which appears adequate for all spaces.
2.10	**Staff dedicated spaces** include conference space, work space, and dedicated restrooms.	1	5	5	

A | Architectural, Interior

ASSESSOR: Kaela Shoemaker

		Weight Factor	Rating	Points	Comments
2.11	**Main office** is visually connected to the entry and is welcoming to students, staff, and guests.	3	5	15	It is not well connected to the parking, however.
2.12	**Break room** is adequately sized and furnished for proper use.	1	2	2	There a a couple areas that appear they could be utilized for staff break rooms, however there doesn't appear to be an area equipped for lunch prep or vending.
2.13	**Mother's room** is a separate designated space properly furnished.	1	0	0	None observed
Maintainability					
2.14	**Floor surfaces** are durable and in good condition.	1	3	3	Most flooring is in adequate condition. Areas of carpet in 18 classrooms are showing wear and staining. Room 2415 has approx 60 sf of carpet that needs replaced.
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	4	4	Core restroom walls are small tile and showing stains on grout. Auditorium walls appear to have some potential water damage or other damage .
2.17	**Built-in casework** is designed and constructed for ease of maintenance.	1	3	3	Plastic laminate countertops are starting to show chipping in several areas including rooms 1730, 1740, 1435, 1440, 1030, 2025, and 2030. Base cabinets typically appear to be in good condition.
2.18	**Doors** are either solid core wood or hollow metal with a hollow metal frame and well maintained.	3	4	12	Door 1740 has had latching issues. It is currently working but the repairs have caused visible damage to the door on the latching side. A door replacement may be needed in the future if issues persist.
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	2	4	Partitions in the core restrooms appear secure, however, they rattle when open or closed. Wear is evident from cleaning graffiti.

A | Architectural, Interior

ASSESSOR: 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	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	5	25	
2.30	**Stairs (interior and exterior)** are well maintained and in good condition meeting current safety requirements.	5	5	25	

A | Architectural, Interior

ASSESSOR: 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	
	TOTAL			366	

A | Architectural , Exterior

ASSESSOR: 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	Primary entry is difficult to locate since vehicular drop off loop and school sign is located at the Boys and Girls Club entrance.
Maintainability					
3.2	**Roofs** appear sound, have positive drainage, and are water tight.	3	4	12	Roofs are generally in good condition, but anticipate replacement in 5-10 years, based on service life. Two roofs (O and P) are light wells with no access. These are in proximity to water damage noted on upper walls of Auditorium. Recommend infill to match adjacent roofs.
3.3	**Roof access** is safe for all roofs.	3	3	9	Roof access from doors in (2) locations. Roof ladders have rail extensions and upper landings. Mechanical unit on Roof B has fall protection rail at adjacent parapet. Provide fall protection rails along equipment access paths on Roofs L and I. Provide ladders to cross parapets from E to L and E to I.
3.4	Exterior **window sealant** is fully intact without cracks or gaps.	3	4	12	No significant concerns. Anticipate maintenance replacement in 5-10 years.
3.5	**Glazing** is low-e coated, insulated, and overall in good condition.	1	5	5	
3.6	**Operable windows** are functional and safe. Operable portion of window fully seals when closed without gapping or leaking.	2	4	8	No significant concerns.
3.7	**Exterior doors** are of durable material requiring minimum maintenance.	2	3	6	All exterior doors/frames are steel, aluminum, or fiberglass faced. All steel doors/frames should be repainted.
3.8	**Exterior walls** are of material and finish requiring little maintenance,	1	3	3	All walls are brick with limestone or precast concrete accents. Most areas are in good condition. Decorative copper spandrel panel at NE side of building requires repair to eliminate bird nesting behind panels. Sealant in masonry soft joints should be replaced throughout.
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	4	4	(4) Doors do not latch consistently. (4) Doors have card readers. (6) Doors have keyed access. (6) Doors are exit only. Most doors have exterior identification labels. Main entry is unlabeled, as are stairwell exits adjacent to Entries 1 and 9.
	TOTAL			72	

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	Site was fairly flat. There was an erosion issue by the detention basin to the south of the school and another by the flume on the north side of the school. An area on the NE side of the site would benefit from the addition of soil behind the curb.
4.2	**Parking areas** are in good condition.	5	4	20	The northeast lot appeared new and in good condition, the asphalt of the north parking lot was in poor condition, particularly by the ADA area.
4.3	**Drive areas** are in good condition.	3	3	9	The south circle drive has an area experiencing subsurface moisture issues, and a couple of the panels into the north parking lot need replacement. Most of the drive area pavement was in good condition.
4.4	**Sufficient on-site, solid surface parking** is provided for faculty, staff, and community.	1	3	3	DMPS states that day to day parking is okay for staff use but that large events lack sufficient parking spaces.
4.5	**Sidewalks** around the facility are in good **condition.**	1	4	4	A few isolated sections across site need repairs, sidewalk conditions mostly good across site.
4.6	**Sidewalks are located** in appropriate areas with adequate building access.	1	5	5	All doors have sidewalk access and site was easily walkable.
4.7	**Hard surface** playground surfaces are in good condition.	3	4	12	The asphalt basketball area had some cracks but appeared to be able to last another 10 years.
4.8	**Fencing** around the site is in good condition.	1	5	5	Fencing appeared new and in good condition.
4.9	**Trash enclosure** is in good condition.	1	5	5	Some of the aluminum trim on the top of the masonry brick was a little bent, but the brick itself, pavement, and gate were all in good condition.
4.10	**Utilities** are in newly constructed conditions and placed in suitable locations.	1	4	4	The FES that outlets into the detention basin was cracked with rebar exposed and will need replacement. An intake in the NE parking lot was missing an intake and will also need replacement.

ASSESSOR: Jack Gorman Joel Jackson

		Weight Factor	Rating	Points	Comments
4.11	**Site has sufficient room** for both building and parking expansion.	1	3	3	There is some space to the north and west for building expansion, but the play area space would be lost if there was expansion to the west. There doesn't appear to be a suitable location for any parking 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 east side of the site and parents use the southern circle drive for drop off. DMPS states there are few issues between buses and parents but that parents back up into traffic on University.
	TOTAL			77	

S | Structural

ASSESSOR: Trevor Pullen

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	4	4	There are some minor cracks.
5.4	**Stoops** appear to be in good condition.	1	5	5	
Slab on Grade					
5.5	**Slabs on grade** do not appear to have any cracks	1	4	4	There are some shrinkage cracks in the basement floor slabs.
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	There are spots showing weathering and mortar cracking.
5.8	**Lintels** appear in good condition (no visible deflection or rust).	1	2	2	Most lintels have some rust on them.
5.9	**CMU** is in good condition.	1	5	5	
5.10	**Precast** is in good condition.	1	N/A	0	

S | Structural

ASSESSOR: Trevor Pullen

		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	4	12	There are some minor shrinkage cracks visible in the concrete floors throughout the building.
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	N/A	0	
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: Trevor Pullen

		Weight Factor	Rating	Points	Comments
5.21	**Tunnels** appear to be in good condition without cracks.	1	4	4	Tunnels are in good shape overall. There are some cracks in the brick walls, but nothing of concern.
5.22	There is a **designated hardened area** in the building.	1	0	0	None observed.
5.23	The hardened area appears consistent with the **ICC 2018 code.**	1	N/A	0	
	TOTAL			119	

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

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	4	12	Most spaces have individual control. A few were observed that do not.
6.2	**Thermostat location.** Thermostats are properly located in the space.	3	4	12	Generally appears to be true where observed.
6.3	Appropriate **amount of ventilation** are provided to each space.	5	3	15	Larger classrooms typically appear to be underventilated (all are provided with 300 CFM) - appears that most, if not all, of these classrooms require 350 to 400 CFM or more of ventilation air.
6.4	**Ventilation** is provided during occupied hours.	5	4	20	Appears to be true - all ERVs are operating, but OA for AHU has OA damper closed - appears to serve Auditorium, which was not occupied.
6.5	**Outdoor air intake locations** are appropriate.	4	5	20	Generally appears to be true.
6.6	Appropriate **levels of exhaust** are provided for areas requiring this such as restrooms, janitor's closets and locker rooms.	5	5	25	Generally appears to be true.
6.7	**Building pressurization.** The design takes into account the balance between ventilation and exhaust air	2	5	10	Generally appears to be true.
6.8	**Major HVAC Equipment** appears to be within it's acceptable **service life.**	5	3	15	Most roof-mounted equipment appears to be in poor condition and may require replacement in near future. Console heat pumps are likely at/near their expected useful life.
6.9	**Cooling loads** are within equipment operational capacity.	5	4	20	Generally appears to be true. Concern identified regarding geothermal loop temperature during cooling operation
6.10	**Heating loads** are within equipment operations capacity.	5	5	25	Generally appears to be true.

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		Weight Factor	Rating	Points	Comments
6.11	**Dehumidification** is provided and addressed humidity loads in incoming outside air.	3	4	12	Appears true for most ventilation.
Plumbing Design					
6.12	**Water Supply Pressure** is adequate to allow for operation of plumbing fixtures.	5	5	25	Water pressure observed appears to be good.
6.13	Appropriate **backflow preventer** is provided at connection to city water supply.	5	5	25	Yes.
6.14	**Domestic hot-water systems** are within equipment operational capacity.	5	4	20	Appears true. One water heater abandoned in place.
6.15	Domestic **hot-water recirculating systems** allow for hot-water at fixtures within a reasonable amount of time.	3	5	15	Warm water observed quickly at faucets.
6.16	**Sanitary sewer systems** are sized and sloped to allow for proper drainage.	5	5	25	Appears to be true.
6.17	Appropriately sized **grease interceptors** are provided for facilities with food service.	3	5	15	Yes. 5,000 gallon grease interceptor.
6.18	**Roof drainage** systems are sized appropriately and overflow drainage systems are installed.	5	5	25	Appears to be true. Scuppers provided for overflow.
6.19	**Restroom fixtures** are in good condition and comply with current DMPS standards.	3	2	6	Manual flush valves and metered faucets with separate hot and cold faucets.
Maintainability					
6.20	Equipment is provided with **adequate service clearance** to allow for regular maintenance	3	5	15	Generally true.

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with **coil pull space.**	2	5	10	Generally appears to be true.
6.22	**Filter** sizes are standard and filter types are standard.	2	3	6	True for most equipment. There are a variety of filters for heat pumps and some are not well seated.
6.23	**Equipment mounting heights** are reasonable.	3	5	15	Generally appears to be true.
6.24	**Floor surfaces** throughout the mechanical room are non-slip and are dry.	2	5	10	True.
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	Generally appears to be true.
6.26	Appropriate means are provided for **airflow and water balancing.**	3	5	15	Generally appears to be true.
6.27	**Hose Bibbs** located in proximity to **outdoor condensers and condensing units**. Is cottonwood an issue at this location?	2	1	2	Hose bibbs at grade level, though most of the building is 2-story or great. No hose bibbs at roof level. Only a few condenser coils were observed on the roof.
6.28	**Fall protection** is provided for equipment within 15 ft of roof edge as per OSHA standard 1910.28(b).	2	4	8	A few exhaust fans are close to the roof edge - all others are set back or have fall protection.
6.29	**Building devices are on DDC controls** and fully visible through Building Automation System. No pneumatic controls remain.	4	5	20	Generally appears to be true.
Occupant Safety					
6.30	**Backflow prevention** is provided at all **cross-connections** to non-potable water.	5	5	25	Appears to be true.

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		Weight Factor	Rating	Points	Comments
6.31	Building is fully **sprinklered.**	5	5	25	True.
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	Building has master mixing valve but device does not appear functional (scaled).
6.33	**Emergency eye-washes and tempering valves** are located where required.	5	0	0	Not observed. Recommend evaluation with an occupational safety and health professional to determine necessity of eye wash(es) for facility spaces.
6.34	**Emergency boiler stop switches** are located at exits from boiler rooms.	5	5	25	Yes.
6.35	**Refrigeration evacuation systems** are provided in rooms with chillers.	5	N/A	0	Not applicable.
6.36	**Carbon Monoxide monitoring** and alarming is provided for areas with gas-fired equipment.	5	5	25	True.
	TOTAL			568	

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	Service entrance consists of 500kVA, 480/277V transformer.
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	5	15	
7.4	The **MDP** appears serviceable.	4	4	16	MDP consists of three sections of Siemens type SB1 switchgear, rated at 1600A bus and MCB. MCB and meter section are in an adjacent room due to space constraints in the main electrical/mechanical space. MDP installed in 2012. (-1 point for age greater than 10 years)
7.5	The MDP is **maintainable.**	3	5	15	
7.6	The MDP will support **future expansion.**	4	4	16	35 positions available in MDP, with 7 spaces and 2 spare breakers available for expansion. (~25%) (-1 point for less than 50% spare capacity)
7.7	The Distribution Panel **environment is safe**, has adequate clearances and exiting.	4	5	20	
7.8	The Distribution Panel appears **serviceable.**	4	4	16	DP is a Siemens type SB2 switchgear fed by a 500kVA step-down transformer adjacent to the gear. 1600A bus and MCB. DP installed in 2012. (-1 point for age greater than 10 years)
7.9	The Distribution Panel is **maintainable.**	4	5	20	
7.10	The Distribution Panel will support **future expansion.**	4	5	20	51 positions are available in the distribution panel, with 18 spaces and 9 spare breakers available for expansion. (~52%)

E | Electrical

ASSESSOR: David Carlson

		Weight Factor	Rating	Points	Comments
7.11	**Electrical panels and disconnect switches** observed during assessment are safe, serviceable, and maintainable.	2	4	8	All panels observed that are installed/modified after 2012 renovation are in excellent condition. Existing panel in boiler room is in poor condition and in need of replacement. Fan room panels are in fair condition, but need blanks to cover open slots. Panel backstage is of immediate safety concern.
7.12	Building has adequate and appropriately located, **safe exterior power** to allow for regular maintenance activities.	1	3	3	Locations of exterior power are adequate, but all receptacles noted are in need of replacement weatherproof covers.
7.13	Building has adequate **exterior lighting** to promote safety and security of the property.	5	3	15	East and South sides of building are dark. South side drive and parking are dark.
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	No card access to building MDF.
7.15	MDF Equipment Racks have adequate space for **future growth.**	4	4	16	Three racks available in MDF, with 58 of total 135 total rack units available for additional equipment (~43%). (-1 point for less than 50% spare capacity)
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	
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	Panel T1 has 10 spaces and 5 spare breakers of 30 possible positions.
7.19	MDF employs up-to-date **network cabling.**	2	4	8	Majority of cabling is CAT5e (-1 point for less than 6/6A).
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with **fiber optic cabling.**	1	N/A	0	No IDFs present.

E | Electrical

ASSESSOR: David Carlson

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate **grounding busbar capacity.**	2	5	10	Ground bar has ample capacity and is labeled for each conductor. Excellent condition.
7.22	Building is equipped with an **addressable fire alarm system.**	5	4	20	FACP is Simplex 4010 which does not correspond with current DMPS standard 4100 series.
7.23	Building is equipped with an **access control system.**	5	1	5	Custodial staff reported that the school security system is not currently able to be armed on site, requiring a call to Dean every day to arm the system. 4/15=27% (2 pts - 1 pt for maint = 1 pt)
7.24	Building is equipped with a **CCTV system.**	5	5	25	Consider adding cameras for parking area on east side of E15th Street. Cameras around building are good.
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	
	TOTAL			389	

EV | Elevator

ASSESSOR: Mike Brown -ATIS

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	
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	
Condition and Maintainability					
8.6	**Equipment is easily accessible** for periodic maintenance.	1	5	5	
8.7	**Equipment** is at an acceptable point in the life cycle, and does not contain obsolete parts.	2	5	10	
8.8	**Finishes** are adequate and maintainable.	1	5	5	
8.9	**Maintenance** is adequate.	1	4	4	Testing and maintenance reports are past due.
8.10	**Testing** is up to date, and all **record and logbooks** are present and filled out.	1	1	1	Annual testing is past due.
	TOTAL			60	

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

Light Switch Repairs	Repair loose light switch in classroom 1505. Switch is functional, however the entire box is loose on the wall.
Emergency Egress	Relocate shelving in Art Room to keep 2nd emergency exit open and accessible.
Countertop Sealant	Sealant should be added or replaced at the casework in the art room. Cleaning and resealing this wet area will help extend the life of the countertop. Approximately 14 LF.
Interior Door Sealant	Sealant is missing along the door frame at room 1415. This should be repaired before additional door or wall damage occur.
Standing Water	Girls' Locker room had standing water in the unused shower area. This water was in a portion of the floor that appears to have been repaired and not properly slopped to any floor drains.
Exterior Door Latch Repair	Door leafs at Entries 2, 3, 6, and 7 do not latch consistently. The pair at Entry 6 (NW corner of gymnasium) drag on each other, making operation difficult.
Repair Door Hardware	Replace weatherstripping at latch side of Entry 10 (Kitchen entrance.) Replace rusting hinges on Entry 11 (pair doors, north cafeteria exit.) Replace lockset on south roof access door (from balcony storage.)
Replace Intake Grate	Replace the missing parking lot intake grate. For location, refer to the civil site plan exhibit found in the appendix of this report.

Add TRM Around Flume	Install TRM around the flume experiencing washout from erosion. For location, refer to the civil site plan exhibit found in the appendix of this report.
Add Soil and Sod	Add soil behind the curb, and add soil and sod around the transformer pad being undermined. For locations, refer to the civil site plan exhibit found in the appendix of this report.
Erosion Repair	Re-grade and add TRM around area experiencing erosion wash out to prevent pavement undermining. For location, refer to the civil site plan exhibit found in the appendix of this report.
Service Mixing Valve	Confirm function of thermostatic mixing valve and service or replace unit if not functional.
Secure Filters	Multiple heat pumps were observed with loose filters in racks - confirm proper sizing and secure filters to achieve intended function.
Gymnasium Sign Repair	Identify circuit for gymnasium scoreboard and repair.
Exterior Receptacle Repair	Replace broken weatherproof covers on exterior receptacles, 4 noted. More may be present.
Security System Repair	Repair local security system to allow for local arming of system by custodial staff.
Perform Annual Safety Test	Perform Annual Safety Test to comply with ANSI A.17.1. Covered by maintenance provider.

1 - 2 Year Priority

		Project Costs
Restroom Upgrade	Restrooms 1635, 1670 should be renovated. Each have 10 fixtures, and are approximately 255SF with 850 SF of wall tile demo and new. Restrooms 2315 and 2350 have 8 fixtures each and approximately 230SF with 700 SF of wall tile demo and new. Minor ADA modifications may be necessary in both sets of restroom renovations. Restrooms 1020 and 1025 should be cleaned with a finish upgrade to ceilings and walls, all other components appear to be in good condition and could remain. Restrooms are each 175SF with 5 fixtures and 550SF wall area.	$1,600,000
Decorative Copper Panel Repair	Replace missing decorative copper trim (4' long) between spandrel panels at NE window bay (facing 15th St.). Birds currently nesting in open cavity behind copper panels.	$11,000
Masonry Repointing	Repoint cracked mortar joint south at canopy lintel bearing, south of Entry 4 (1 LF) and south end of sill NE window in Cafeteria 1800 (1 LF). Remove and reset brick above clerestory (30 SF) windows on north side of Media Center 2025 .	$7,000
Exterior Steel Refinish	Remove rust and repaint all exterior steel doors and frames. (1) 4-door unit, (7) single doors (including roof access doors), (5) double doors and (2) double frames. Clean and repaint (4) roof ladders ((2) @ 16 VLF and (2) @ 12 VLF.)	$15,000
Pavement Replacement	Remove and replace 33 SY of PCC. For location, refer to the civil site plan exhibit found in the appendix of this report.	$10,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 10 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$7,000
Flume Replacement	Replace and reinforce the flumes that have failed to prevent undermining of stairs. For location, refer to civil site plan exhibit found in the appendix of this report.	$9,000
Brick Lintel Replacement	Steel Lintels at the 1st and 2nd floor outside of room 1120 have deteriorated enough that they need to be replaced. 16 LF. L6x4x3/8 lintels.	$12,000

Concrete Column Patch	A concrete column in room 0045 has had a piece break loose at it base. It should be patched. Approximately 10 SF.	$15,000
Stoop Installation	Provide new structural stoop at Entry 3 (Classroom 1245). 5'x5'	$9,000
Thermostatic Mixing Valve	Replace thermostatic mixing valve with a new digital mixing valve.	$13,000
Add Exterior Lighting	Add building mounted perimeter lighting at south and east sides of building to cover dark areas. Add pole mounted lighting at parking and circle drive on south side of building. Add poles or bollards between East Parking and building door. Parking is light and it is much darker walking towards building.	$70,000
Panelboard Replacement	Replace existing panels in poor condition in boiler room. Replace existing panel backstage in auditorium and investigate lighting control requirements.	$50,000
	Total 1-2 Year Project Costs:	**$1,828,000.00**

3 - 4 Year Priority

		Project Costs
Casework Replacement, Partial	Replace countertops in highest abuse areas with a solid surface, or similar, material for durability and longevity. Approximately 100 LF of countertop replacement in 5 classrooms, 1030, 1435, 1440, 1730, 1740.	$35,000
Flooring Replacement, Music	Flooring in instrumental music room is VCT that is showing heavy wear and age. Replacement is recommended for that room and the support spaces. Approximately 1750 SF of new carpet for all spaces.	$20,000
Flooring Replacement, Classrooms	Flooring in most classrooms is broadloom that is in varying conditions of wear and age. The lighter broadloom appears to be in worse condition than others and is recommended to be replaced at this time, with carpet tiles. Other carpets to remain. Approximately 5,100 SF of replacement.	$50,000

Masonry Joint Sealant	Reseal masonry soft joints at entire building perimeter, including each side of brick pilasters upper wall of original building. Approximately 550 LF.	$11,000
Pavement Replacement	Remove and replace 413 SY of asphalt and 7 SY of PCC. For locations, refer to civil site plan exhibit found in the appendix of this report.	$60,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 80 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$15,000
FES Replacement	Replace the damaged FES. For location, refer to civil site plan exhibit found in the appendix of this report.	$9,000
Lintel and Screening Refinishing	Remove surface rust and repaint lintels at entire building perimeter., including walls above low roofs. Approximately 1,500 LF. Scrape/repaint 250 SF of bird screen at mechanical louvers.	$25,000
Replace Heat Pumps	Replace classroom heat pumps and roof mounted heat pumps.	$3,900,000
Replace ERVs	Install new DOAS units with ERV and includes gas heat and dehumidification capability. Address ventilation deficiencies with added ventilation capacity and distribution to classrooms.	$1,700,000
	Total 3-4 Year Project Costs:	**$5,825,000.00**

5 - 10 Year Priority

		Project Costs
Blind Replacement, Partial	Replace blinds in most heavily damaged areas including Cafeteria, music rooms, health lab, and select other areas. Approximately 300 LF of blinds, or approximately 12 rooms.	$40,000
Roof Access Improvements	Provide fall protection rails along equipment access paths on Roofs L and I including at light wells O and P (330 LF). Provide ladders to cross parapets from E to L (4 VLF) and from E to I (4 VLF).	$210,000

Replace Roofing	Remove approximately 46,500 SF of PVC roofing and insulation over roof areas H-P. Install code compliant insulation and TPO roofing. **This project should follow or be done alongside the water infiltration study and roof infill study listed below.**	$1,500,000
Pavement Replacement	Remove and replace 334 SY of asphalt. Remove and replace 334 SY of PCC and add a rock base under the 177 SY experiencing subsurface moisture issues. For locations, refer to civil site plan exhibit found in the appendix of this report.	$140,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 131 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$30,000

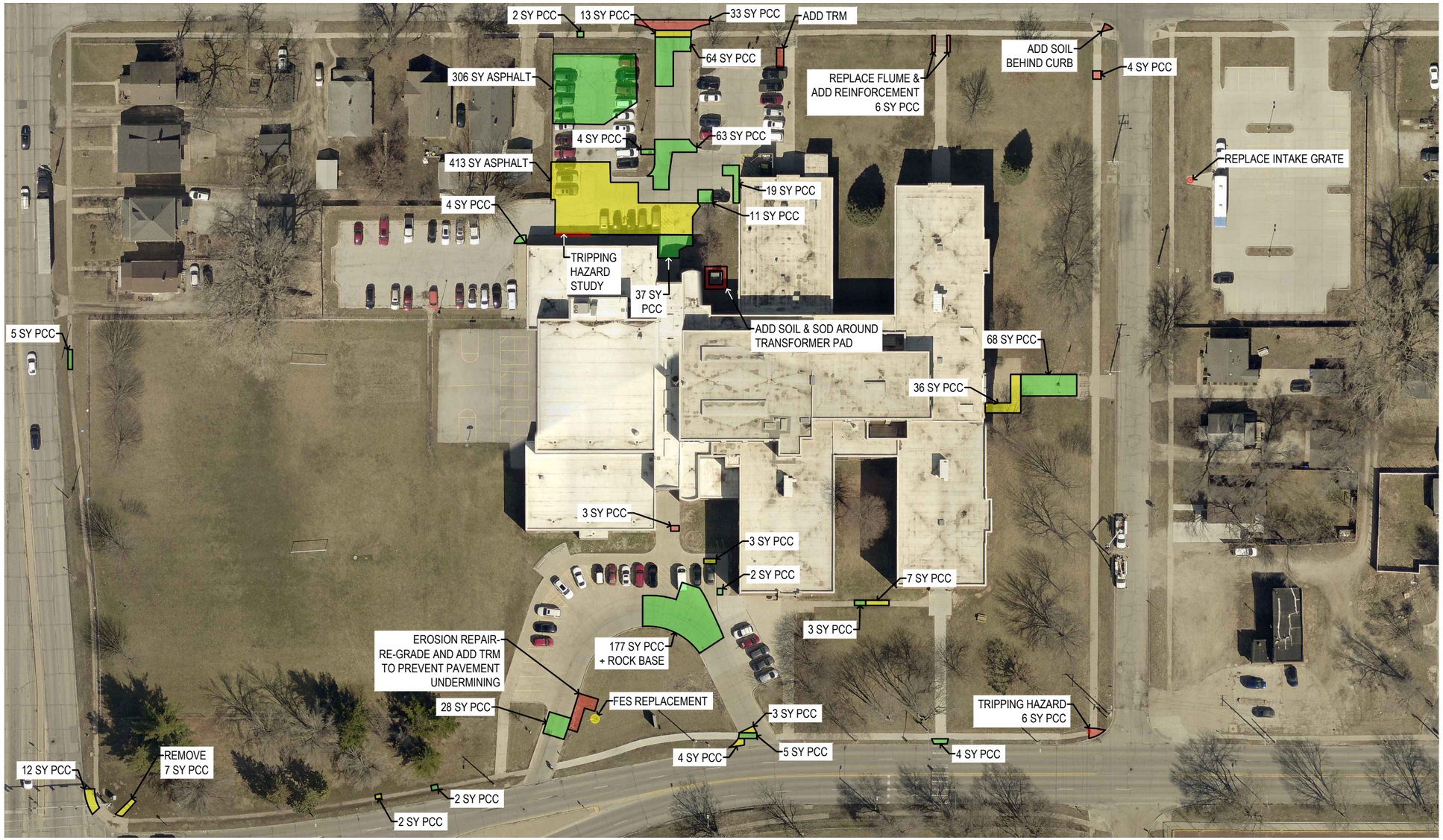
Total 5-10 Year Project Costs: $1,920,000.00

Projects Requiring Study

		Design Services Fee
Mother's Room Study	Study to define a private dedicated space for a Mother's Room that includes a sink, side table, chair, and privacy door hardware.	$5,000
Water Infiltration, Study	The auditorium walls are showing signs of water infiltration. It is unknown at this time what the cause may be. A study should be done to determine if water infiltration is the cause of the wall damage, and if so what the recommended solution is. **This is recommended to be a high priority study.**	$5,000
Roof Infill Study	Roofs O and P, 300 SF each, are at L2 floor level with access only from window on intermediate stair landing. Windows on sidewalls originally provided daylight into stair, restroom, and auditorium, however only window into stairwell remains. Construct new roof above these light wells at Roofs O and P in line with adjacent high roofs M and N. Determine appropriate use and construction modifications at newly created Level 2 interior spaces.	$5,000

Space Utilization Study	The central office area appears to be partially used for counselor offices and meeting rooms. There is an underutilization of this space as well as a disconnect from the rest of the main office. A study should be done to determine how to best arrange this space to include student support staff as well as staff amenities while maximizing space use for other building needs.	$10,000
Tripping Hazard Study	A study is needed to determine the best solution to correcting the tripping hazard created by the curbing in the north parking lot. For exact location, refer to civil site plan exhibit found in the appendix of this report.	$2,000
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
Slab Spalling Study	There are multiple areas where the 1st floor slab has concrete spalling off the underside, exposing rebar. The rebar shows signs of significant corrosion. Further study is needed to determine the best course of action. The areas in question are the ceiling at the west side of the mechanical room 0045 and 0020. **This is recommended to be a high priority study.**	$5,000
	Total Study Design Service Fees:	**$34,500**

APPENDIX



5+ YEAR REPLACEMENT

3-4 YEAR REPLACEMENT

1-2 YEAR REPLACEMENT

NORTH

GRAPHIC SCALE

80 0 40 80 160

ARCHITECTS ENGINEERS

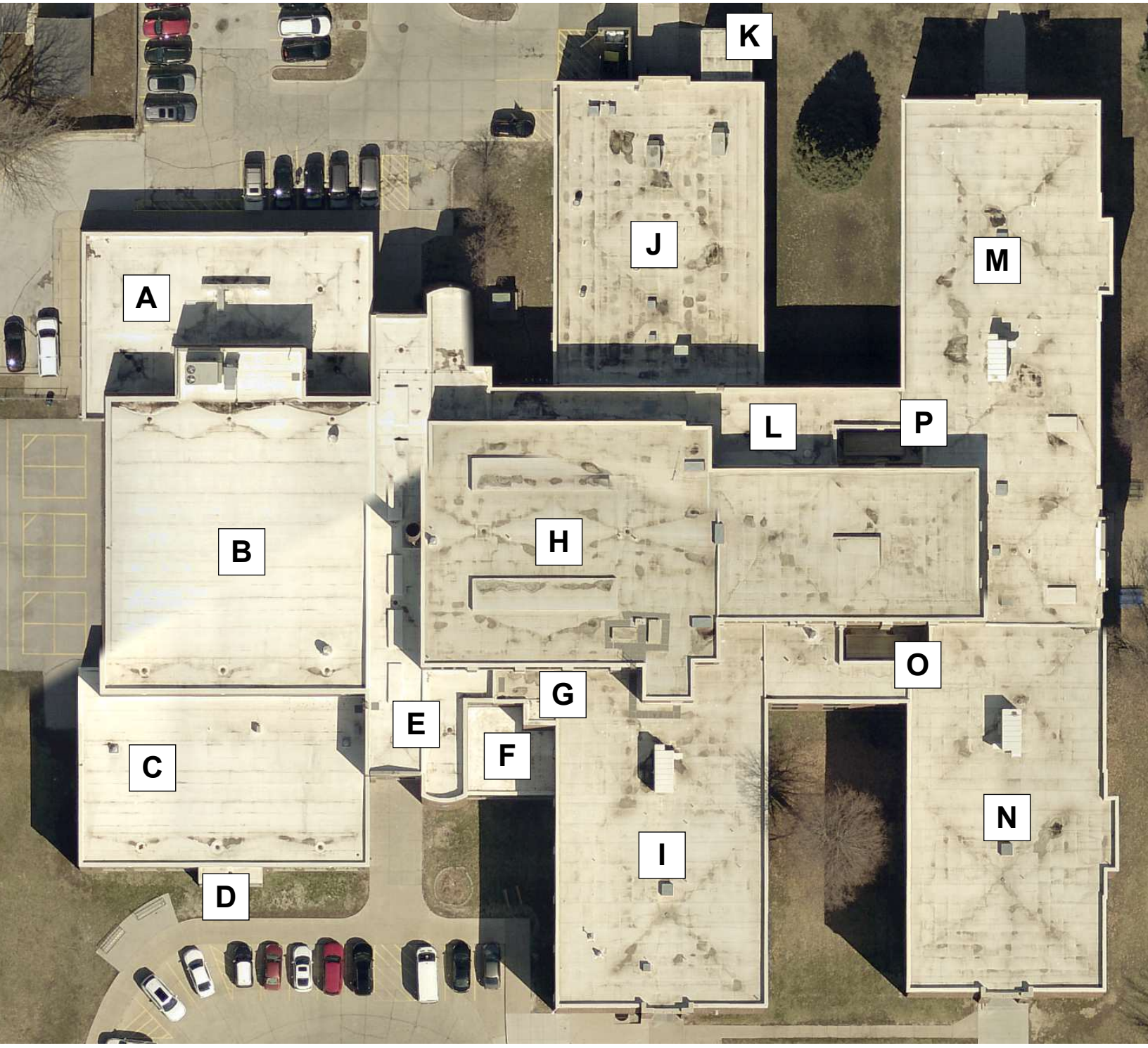
BISHOP ENGINEERING +

HIATT MIDDLE SCHOOL

EXHIBIT

PROJECT # 230286-43

DATE 2/16/2024



N

bbs ARCHITECTS ENGINEERS

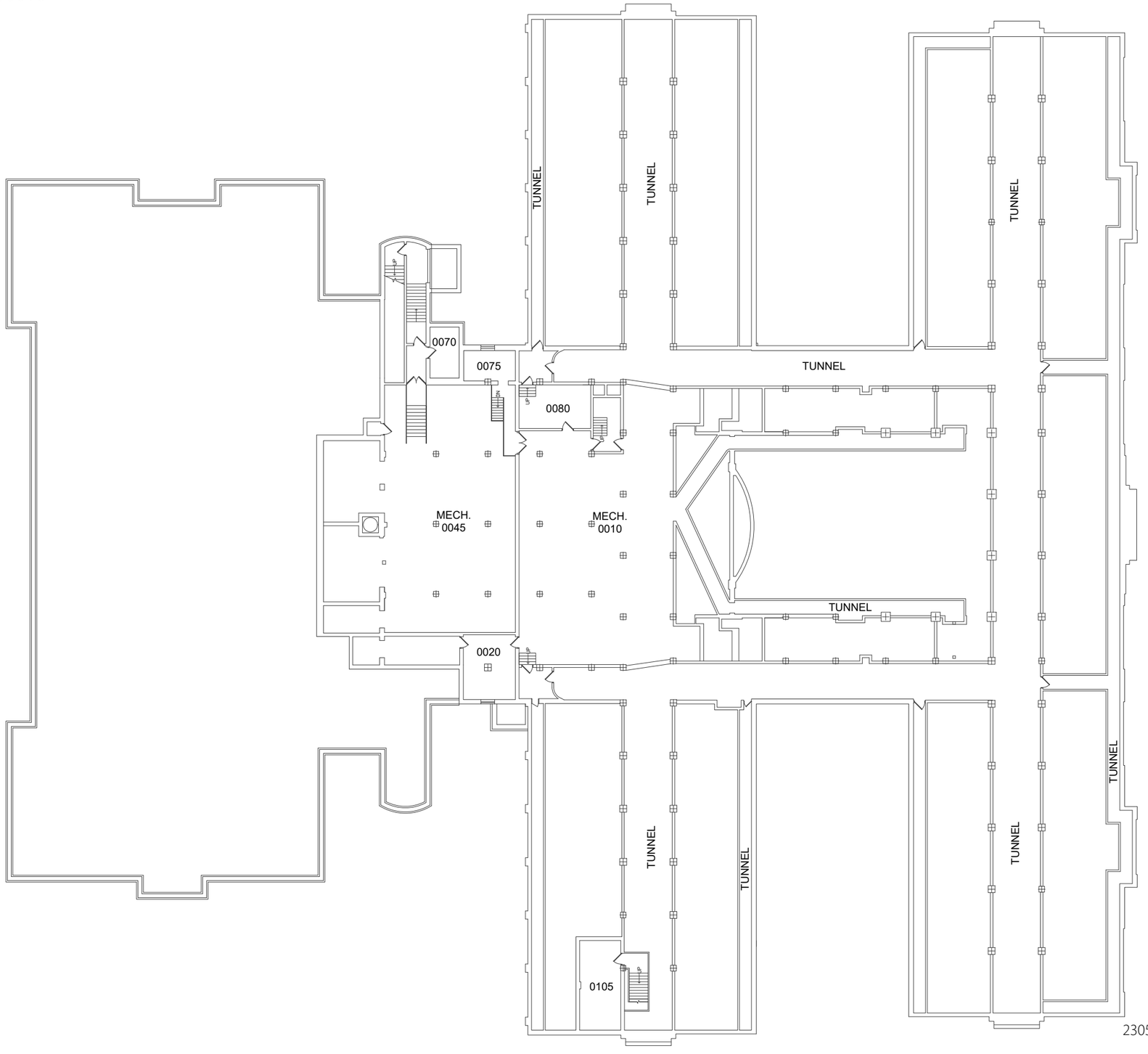
23055 - DMPS Facility Conditions Assessment
Roof Identification Image
Hiatt Middle
2.14.2024

HIATT MIDDLE SCHOOL

1214 E 15TH STREET
DES MOINES, IOWA 50316

LOWER LEVEL

NORTH



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

bbs
ARCHITECTS
ENGINEERS

HIATT MIDDLE SCHOOL

1214 E 15TH 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

2.12.2024

HIATT MIDDLE SCHOOL

1214 E 15TH STREET
DES MOINES, IOWA 50316

SECOND FLOOR

NORTH

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

bbs ARCHITECTS ENGINEERS