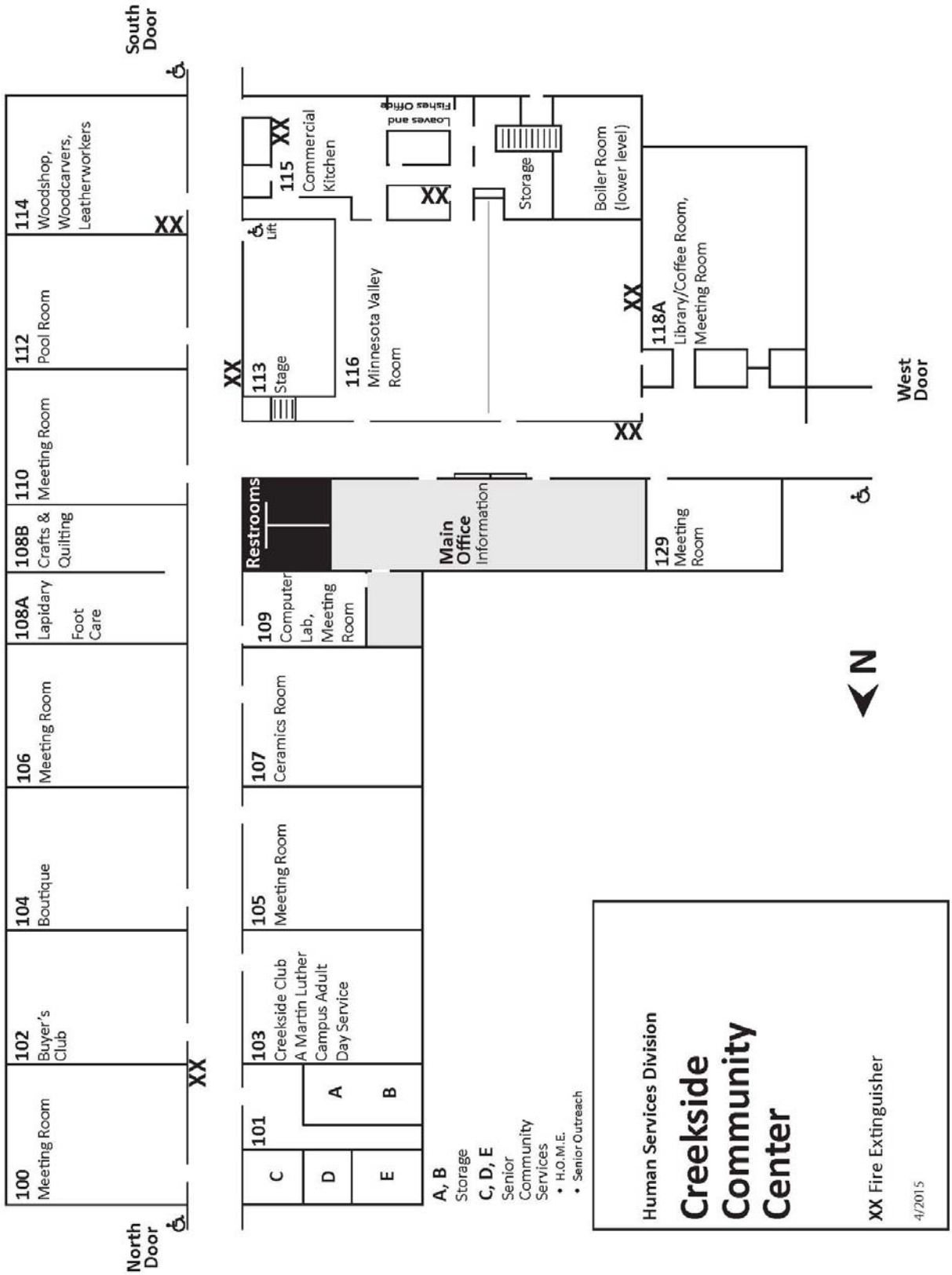
3. EXISTING CREEKSIDE ASSESSMENT

The city of Bloomington hired HGA to conduct a needs assessment for a community center in the city. Part of our scope was to review the condition of the existing Creekside Community Center and determine long term maintenance needs, including associated cost estimates.

A thorough assessment of the existing facility was performed by HGA architectural, structural, mechanical and electrical professionals on January 9, 2015. We recognize some positive aspects of keeping the existing facility, including its central location and the fact that it is well built and maintained. However, several critical issues that require extensive study and cost to correct were noted and are reported in more detail in the following pages. The structural system, while sound, is very inflexible and limits the ability to move interior partitions and to provide appropriate ceilings heights for the community functions the building now hosts. The energy performance of the exterior envelope and roof is grossly inadequate. Leaking from expansion and contraction of the roof needs to be remedied. Many of the HVAC components have long surpassed the end of their useful life and need replacement. The restrooms are inadequate and do not meet current building codes. In addition, the building is not sprinklered for fire protection.

While the 55 year old Creekside Community Center is a solidly built usable structure, it is limiting opportunities for the City of Bloomington to better meet the needs of its residents. Given the findings from the needs assessment process, the lack of flexibility to modify room sizes and heights, and the significant cost to correct existing problems, our recommendation is to look for a new location to accommodate City of Bloomington Community Center programming. This will allow the new facility to be right-sized, accessible, purpose-built and energy efficient for the long-term benefit of the community.


South Door
North Door
West Door
100 Meeting Room
102 Buyer's Club
104 Boutique
106 Meeting Room
108A Lapidary
Foot Care
108B Crafts & Quilting
110 Meeting Room
112 Pool Room
114 Woodshop, Woodcarvers, Leatherworkers
101
C
D
E
A
B
103 Creekside Club
A Martin Luther Campus Adult Day Service
105 Meeting Room
107 Ceramics Room
109 Computer Lab, Meeting Room
Restrooms
Main Office
Information
113 Stage
116 Minnesota Valley Room
Lift
115 Commercial Kitchen
Leaves and Fishes Office
Storage
Boiler Room (lower level)
118A Library/Coffee Room, Meeting Room
129 Meeting Room
XX
A, B Storage
C, D, E Senior Community Services
• H.O.M.E.
• Senior Outreach
N
Human Services Division
Creekside Community Center
XX Fire Extinguisher
4/2015

Bloomington Community Center

Needs Assessment

ID	AREA DESCRIPTION		PROGRAM				NOTES
			EXISTING	NO. OF SPACES	ASF/ ROOM	ASF TOTAL	
Existing Program							
	Meeting Room #100		842	1	842	842	*rental*
	Meeting Room #106		860	1	860	860	*rental*
	Meeting Room #110		860	1	860	860	*rental*
	Meeting Room #101A		124	1	124	124	
	Meeting Room #101B		136	1	136	136	
	Senior Community Services		122	1	122	122	H.O.M.E., senior outreach
	Senior Community Services		122	1	122	122	H.O.M.E., senior outreach
	Senior Community Services		128	1	128	128	H.O.M.E., senior outreach
	Buyer's Club Room #102		830	1	830	830	a food mini-market operated by older adult volunteers
	Boutique Room # 104		830	1	830	830	handcrafted items available for purchase - items are made by community members
	Campus Adult Day Service Room #103		840	1	840	840	Martin Luther Manor Adult Day Service - senior care
	Music Room Room #105		840	1	840	840	*rental*
	Ceramics Room #107		856	1	856	856	
	Lapidary Room #108A		422	1	422	422	
	Crafts & Quilting Room #108B		422	1	422	422	
	Computer Room #109		265	1	265	265	*rental*
	Pool Room #112		860	1	860	860	
	Woodshop Room #114		902	1	902	902	
	Loaves & Fishes Kitchen		482	1	482	482	provides free meals to the hungry
	Library, Coffee Room #118A		1,280	1	1,280	1,280	*rental;* tables & chairs, couches
	Banquet Hall - Minnesota Valley Center		3240	1	3240	3,240	multipurpose: tables/chairs (250), lectures, dinners, music, etc.
	Teen Center Room #129		272	1	272	272	
	Main Office		1372	1	1372	1,372	
	ASF SUBTOTAL					16,907	
		GSF	67	%		25,186	

The Bloomington Creekside Community Center occupies a one-story former elementary school built in 1960 at Penn Avenue South and West 98th Street. The facility is currently filled with a wide variety of community programs and services, and appears to be heavily used. The building itself has been well-maintained, but suffers from several serviceability, flexibility and thermal issues that are typical of buildings constructed in that era. Its future usability for expansion of its present functions or the addition of new ones may be limited by a number of aspects outlined below.

The Community Center building is of non-combustible construction, but without structural fireproofing or a sprinkler system. In 1981, not long after the City purchased it, the building was remodeled to provide updated, code-compliant egress and area separations to accommodate the change from Group E Occupancy (educational purposes through 12th grade) to primarily Group A-3 occupancy (community/recreation assembly purposes). The single story allows for excellent building accessibility, though some interior doors, hardware and hallways, as well as some toilet facilities, are not compliant with The Minnesota Accessibility Code. The overall fixture count of the building, even when including the existing non-accessible individual toilet rooms in classrooms, is less than half of what is required by current codes for a building of this size and type.

We were told that all asbestos containing materials (ACM's) that have been identified have been abated from this facility in the recent past; including the original vinyl-asbestos tile (VAT) that was installed on most floors. Interior partition surfaces are typically painted, both at concrete masonry units (original) and at gypsum board (added by remodeling.) Original ceilings in hallways and classrooms are exposed "acoustic form boards," (part of the original roof deck construction), though a few areas have had lay-in ceilings of acoustic ceiling tile (ACT) added below them. The very few ceiling areas that were observed to have signs of moisture problems were thought to be the result of condensation on steel beams, light fixture housings, ceiling mechanical units and/or structural "bulb tees" when these items are cooled repeatedly by and in close proximity to room air conditioning, then exposed to humid air, possibly after the units are turned off. Floors are primarily covered with carpet where VAT was removed, though several areas in the kitchen, store rooms and a few classrooms have quarry tile floors in very good shape. The original concrete sub-floor slabs on grade appear to be in good condition, with no signs of moisture or vapor problems.

One of the more challenging obstacles to upgrading the spaces and systems of the Creekside Community Center facility is the inflexibility of the structural system as it is integrated into the building's architecture. Because the "finished" underside of the roof deck and its supporting beams are exposed (8'-8" to the bottom of the deck, 7'-8" to the bottom of the steel beams), all horizontal mechanical and electrical systems are also exposed, and those which cross the beams must either penetrate the beams or drop to 7'-4" or lower. In order to conceal any portion of these systems, a ceiling would have to be installed at an unacceptable 7'-0" or lower above the finished floor. Given this aspect of the building's architecture, designing and installing comprehensive renovations of or substantial additions to mechanical, plumbing, electrical and lighting systems would be difficult at best, unless portions of the roof were raised or added onto, and/or unless building additions were placed along one or more sides of the building perimeter.

Exterior building envelope issues pose a less significant architectural obstacle, but a substantial economic one. Approximately 70% of the exterior wall square footage of each classroom is made

up of the original aluminum-framed, single-glazed windows that provide wonderful daylight but also considerable heat loss to each room. Nearly all have been covered with glazed storm panels, improving their performance, but still not reaching the level of today's insulated and/or translucent glazing options. Original construction drawings do not show any insulation in the exterior masonry walls, though more recent notes on existing drawings indicate that some masonry cores may have been filled with vermiculite. There is a noticeable temperature difference between the inside surface of exterior masonry walls and that of interior masonry walls, even in the same room. Though the exterior face brick itself is in relatively good condition, the mortar joints should all be repaired and repointed as necessary, especially at building corners and cabinet unit heater air intake louvers. Control joints may need to be added where mortar joints have severely cracked and separated.

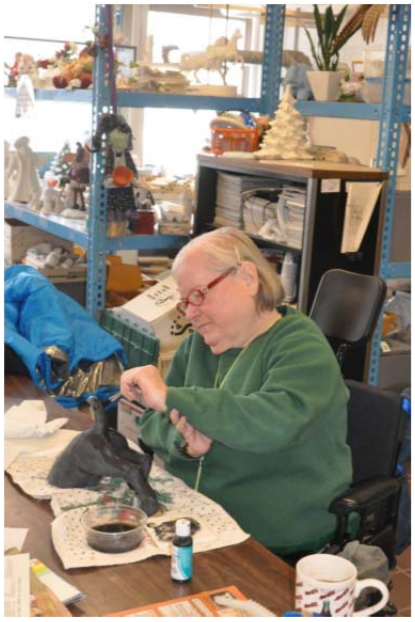
The two-level roof had its built-up roofing (BUR) membrane replaced in 1981, and portions have been patched and/or replaced at various times since. Leaking is evident in several locations and annually requires immediate temporary solutions, typically after the spring thaw cycle. The roof contains much less insulation than is required to meet today's Minnesota Energy Code, and to meet the minimum roof slope requirements of the Minnesota Building Code. This could be remedied during ongoing or future roofing replacements by adding more and better tapered insulation, but would probably require raising the building roof edge height and possibly adding more roof drains. Additional overflow scuppers would also need to be added where required.

Though originally constructed as an elementary school at Penn Avenue South and West 98th Street, this structure is a solidly-built, well-maintained and a very usable 55 year-old building. It appears to be meeting its current functional requirements as home to Bloomington's Creekside Community Center. However, expanding or upgrading these requirements at this current facility will probably be possible only by modifying substantially the building itself and/or adding considerably to its footprint.

Space deficiencies

In addition to the building condition assessment, several space deficiencies were documented by staff to illustrate problems delivering current programs. Consistent issues with overcrowding, lack of adequate storage, limited maneuverability, and inappropriate spaces for music and fitness were documented. While the facility is heavily used as a public gathering space, its character, spatial qualities of height and scale and interior finishes do not support this function. The following images illustrate many of the reasons Creekside does not have the capacity to deliver current programs.







Space deficiencies in existing Creekside.

On January 9, 2015, a site visit was made to observe the structural condition of existing Creekside Community Center building. All information and recommendations within this report come from visual observation during the tour, as well as existing drawings provided to HGA by the City of Bloomington. Original structural plans were included in the set provided, but no sections or detail drawings. This report contains only visual observations of the condition of the structure. Structure obscured by finishes or grade are not able to be observed and are not included in this report.

Existing Structural System Description

Originally constructed as an elementary school building in 1960, the one-story structure consists of exposed steel roof beams supporting gypsum concrete bulb-tee slabs. The steel beams are supported on load bearing concrete masonry bearing walls positioned between classrooms and on each side of the central corridor. The building is supported on conventional spread footings.

Twelve-inch deep steel beams are typically spaced at eight-feet on center and span approximately 32-feet from the exterior wall to interior corridor CMU bearing walls. The steel beam supports at the exterior glass wall consist of WT columns placed at each beam. The supports at the interior masonry wall consist of steel bearing plates with the beams cantilevering to the corridor centerline with a simple bolted connection to the opposing beam for shear transfer only. The steel beams are exposed and detailed with holes in the corridor to allow pipes to pass through. The dimension from the floor slab to the bottom of the beam is only approximately seven to eight-feet, which leaves very little space for services distribution below the beams.

A three and a half-inch deep gypsum slab spans approximately two-feet to steel tee shapes with bulbed ends at the webs of each tee. This tee acts compositely with the concrete slab and spans the eight feet between steel beams. The form for the slab is the acoustic ceiling panel visible within each room. The roof deck is shown with expansion joints at every other room CMU partition. These joints generally align with double parapets at the roofing expansion joints.

The former gymnasium uses 24-inch deep long-span open-web steel joists to span between masonry side walls supporting the same gypsum tee-bulb roof system. A light-gauge ceiling structure is hanging below the trusses and has been added in a previous renovation.

The floor slab is shown as four-inches thick, cast on grade, with welded wire fabric reinforcing. The mechanical room is recessed approximately six-feet below the main floor slab and uses an eight-inch reinforced slab on grade. Reinforced concrete basement walls retain the soil and reinforced concrete slabs and beams cap the portions of the mechanical room with occupied space above. Reinforced concrete tunnels provide supply and return air connections between the mechanical room and the gymnasium.

Basement Structural Condition
The condition of structural concrete for the basement walls, visible within the mechanical room, was very good. No evidence of water leaks through the walls was observed. Wall cracks are not significant and not unusual for this type of construction. The concrete slab on grade had evidence of paint peeling, a symptom of water vapor transmission through the slab, but no other evidence of water was observed in the basement. Slab cracks are not significant and not unusual for this type of construction.

Main Floor Slabs
The original vinyl tile has been replaced with carpet in the corridors and most meeting rooms, and ceramic tile in other rooms. While not directly observable, cracks in the slab on grade would reflect through the ceramic tile, and this was not observed. No moisture vapor issues were reported or observed.

Roof Structure
The structure of the roof had no visible distortion or distress. One location in one room had limited surface rust on the bottom of the bulb-tees. As this location was adjacent to a fan coil unit and not at midspan where one would expect roof water ponding, it is not likely the result of roof leaking, but of condensation. The surface rust is very light and does not affect performance.

Masonry Walls
Interior masonry load bearing walls were in excellent condition with very limited cracks visible. The cracks noted at corners of load bearing and non-load bearing walls are small and do not affect structural performance.

Exterior Observations
Photographs of the roof in summer indicate that some portions of the roof are ponding water and not draining properly. The roof slope seems very flat and roof scuppers quite distant from the roof drains. The drainage should be repaired and brought up to code to prevent overloading of the roof structure due to ponding of water.

The facilities manager reported that annual roof leaks need to be repaired each spring at the northwest corner of the gymnasium roof projection above the main roof. The roofing in this location seemed spongy. Because of the location of this re-entrant corner with respect to the expansion joints, it appears that thermal expansion and contraction of the low roof is being restrained by the walls above the low roof, causing rupture of the roof seal. The roof deck also changes span direction at this location. When the roof is next replaced, expansion joints should be added to fix this condition.

Summary

Many of the HVAC components have long surpassed their generally accepted useful economic life. Specifically, the gymnasium air handling unit, chiller, fan-coil cooling units and unit ventilators are all forty years old or older. These systems would need to be significantly upgraded for a building renovation, both to overcome some critical shortcomings, and to comply with current ventilation codes and standards.

The addition of partial air conditioning in 1977 appears to have created some problems with localized corrosion from condensation due to the lack of conditioned of makeup air. Metal building components (including light fixtures and chilled water piping insulation) in the direct path of the cooled air discharging from chilled water fan coil units is chilled below the dewpoint of the surrounding air. Condensation likely forms on the cool surfaces after the fan coil units are shut down. This condition exists to varying degree in nearly all of the areas cooled by ceiling mounted fan coil units.

Restrooms are inadequate by current codes. The building is not sprinkled for fire protection.

Upgrades should include:

- Ventilation to meet current code requirements based on the occupancies and building usage, and to provide adequate makeup air for restroom exhaust and the woodshop dust collection system.
- Abandon the concrete air tunnels and provide ventilation air to the gymnasium through new ductwork.
- Consolidation and upgrade of toilet facilities.
- Replacement of aged mechanical equipment that is no longer suitable for the intended service.
- Evaluation of fire protection requirements.

Existing Mechanical System Description

The original building mechanical systems were designed around a heating/ventilating concept, provided by the basement air handling unit through underground ducts and concrete air tunnels to the gymnasium and administrative office areas, and to classrooms by gas-fired and/or hydronic unit ventilators in conjunction with operable windows. Administrative offices had supplemental heating provided by perimeter hot water radiation. The concrete air tunnels appear to be still in service for the gymnasium.

A chiller was added in 1977, with chilled water pumped to fan-coil air conditioning units in classrooms. A chilled water coil was added to the original basement air handler to provide conditioned air to the gymnasium. The concrete air tunnels serving the gymnasium are still in service. The tunnels themselves were not accessible for evaluation.

Air conditioning and ventilation for the administrative offices is now provided by a rooftop air conditioning system installed in 1996.

The kitchen was remodeled in 1982 with a dedicated air conditioning unit providing makeup air for the exhaust hood. The existing rooftop unit appears to have been replaced since the 1982 upgrade.

Ventilation and Exhaust

Mechanical ventilation is provided in the following locations:

- Old gymnasium: through existing air handler, original to building.
- Offices and spaces served by packaged rooftop air conditioning equipment.
- During the heating season, through original unit ventilators to rooms in which these units are installed. No mechanical ventilation is provided during the cooling season.
- Kitchen: through the rooftop air handling unit that provides makeup for hood exhaust.

Each of these sources has limited capability to meet the building's ventilation requirements. The woodshop dust collection system recirculates filtered air into the woodshop.

The central lavatories and individual restrooms do not appear to be provided with a direct source of makeup air. As part of a major renovation, consider removing the small restrooms to simplify ventilation/exhaust systems. Exhaust fans all appear to be replacements of original units, but actual age is unknown.

Rust was observed on metal portions of the ceiling system and light fixtures that are in the direct path of supply air from the ceiling mounted cooling units (fan-coils) in a few locations: Buyer's Club room where food is packaged and cooling is used for more hours than in other spaces, and in remodeled offices that have suspended acoustical ceilings, where air conditioning is presumed to be used for more hours of the year. This suggests that the building experiences high humidity in cooling season. The metal components are cooled and moisture condenses on the cold surfaces. When this is repeated consistently for years, the steel surfaces rust (Mech 2, Mech 3).

Black staining was observed on piping insulation that shows signs of compromised vapor barrier, specifically in the vicinity of the rusted ceiling system components.

Mechanical Cooling

The chiller is thirty-eight years old (1977). The current location is large enough for a replacement unit of larger capacity. Owner noted problems with compressor failures. The chiller uses an indoor evaporator and the refrigerant is presumed to be R-22. No refrigerant detection system or emergency refrigerant ventilation system was observed in the mechanical room. A system upgrade could use a packaged air-cooled chiller located entirely outdoors, with chilled water piping between the building and chiller. The system does not use glycol and is not drained for the heating season.

The existing AHU in the basement is original to the building. The basement mechanical room has sufficient space for a new air handler with greater capacity.

Newer air handling units:

- Kitchen remodel: 1982. The existing unit appears to be ten years old or less. It provides conditioned makeup air for the exhaust hood.
- Office remodel: 1996. Unit provides ventilation, cooling and heating.

Heating Systems

Existing boilers have redundant capacity based on comments from Owner, who noted that on the coldest days only three of the five units are running.

Boilers were installed in 1990. Boilers may have ten years of useful life remaining, but the ASHRAE economic life is not more than 25 – 30 years depending on type.

Heating water is glycol, maintained on a service contract with Owens.

Building Storm Drains

Roof drains along the main north-south wing of the building are located approximately 32-feet from the overflow scuppers at the east parapet. To achieve the code-maximum overflow elevation difference of two-inches, roof slope is limited to 1/16" per foot, less than current codes require. The current roof drain system and interior storm drain piping could be used in conjunction with a redesigned roof insulation system, or abandoned and replaced with a scupper system.

Plumbing

Plumbing fixtures are in reasonably good condition. Copper piping appeared in good condition where it was observable, but a few isolated locations showed localized corrosion.

Failure of above-ground cast iron piping has been reported in many buildings of this vintage. Non-destructive ultrasonic testing in conjunction with visual examination is recommended for rainwater leaders, should an addition or renovation be considered.

April 2015 update provided by Human Services:
Creekside has galvanized pipes, which can create tuberculates (deposits) inside the supply piping over time. As galvanized iron water lines age, the interior of the pipe gets clogged with mineral deposits. Galvanized pipes are prone to rust and corrosion.

Testing as recent as April 2015 indicated larger than normal amounts of deposits from piping connected to the commercial dishwasher has created issues in keeping the equipment up to standards.

Electrically, the building interior is essentially as it was in 1960 when it opened as an elementary school. There have been minor remodels in the kitchen and office areas, added IT infrastructure, added air conditioning and an external emergency generator installed when the city bought the building and made it a designated emergency shelter.

The existing building service is a 120/208V three-phase 800A underground service from an Xcel pad mounted transformer (225 kVA) outside the east wall of the building. The existing building is approximately 25,137 square feet. This load equates to 11.45 Watts/SF for a maximum load. In the summer with a large cooling load, the service is near to capacity. The Xcel service feeds the transfer switch mounted at the emergency generator. The generator then feeds into the building via a main disconnect switch in the boiler room. The chiller is tapped off the Xcel service and is not backed up by the generator.

Electrical service equipment is in good condition; however, it is original FPE brand equipment. FPE circuit breakers are known for not tripping (opening) under short circuits and are therefore unsafe. Panel replacement should be included as a maintenance item. The feeder distribution panel is located in a storeroom across from the kitchen. From this location, panels near the gym, each classroom wing, boiler room and kitchen provide power for lighting and receptacle circuits. This storeroom area also has very low structure, which would hinder adding feeders to the existing distribution panel. The equipment in each location has adequate clearance to the front and working space from side to side.

Interior lighting is a mix of fluorescent and incandescent, with exterior and site being mostly high-pressure sodium. The interior fluorescent lighting has been mostly retrofitted to T-8 lamps and electronic ballasts. There are some locations with T-12 lamps remaining. There is limited battery pack egress lighting and battery pack exit signs. LED site and exterior lighting should be considered for energy savings and reduced maintenance.

The building has a fiber optic service for phone and data connections. Fiber entrance is in the lower level boiler room near the electric service equipment. On the main floor level there is a small storage room with IT equipment on wall-mounted racks in the office area. Typical practice is to have a telecom closet for IT equipment and cabling to terminate in that has a separate cooling system to provide 24/7 system cooling.

There is a minimal fire alarm system in the building with limited automatic, notification and manual system. The existing Honeywell system is not code compliant. The existing system is a line voltage (120-volt) system and parts are no longer manufactured. The building is not sprinklered. The fire alarm system should be replaced with modern equipment and in compliance with current codes.

There is an existing paging system in the rooms and corridors of the building. It is also used for background music.

In summary, the existing electrical system is in fair condition, yet operates near maximum load to serve current needs. Any expansion will require a new enlarged three-phase service.

Exterior entrance to Creekside Community Center.

Ceramic classroom.

Main corridor showing services below ceiling.

Minor corridor showing service below ceiling.

Existing toilet facilities do not meet current codes.

Acoustic form board ceiling is part of original roof deck construction.

A few areas have lay-in ceilings of acoustic ceiling tile (ACT).

Evidence of moisture problems is visible.

Some floors appear to be in very good condition.

Some floors appear to be in very good condition.

Low ceilings and exposed mechanical and electrical systems contribute to inflexibility of spaces.

Glazed storm panels cover most original single glazed windows.

Repair and repointing mortar joints is recommended.

Original unit ventilator.

Better insulation and tapering is recommended with roof replacement.

Xcel pad mounted transformer (225 kVA) outside the east wall of the building.

Transfer switch mounted at the emergency generator.

Main disconnect switch in the boiler room.

The chiller is tapped off the Xcel service and is not backed up by the generator.

Original FPE brand electrical service equipment.

Interior lighting is a mix of fluorescent and incandescent.

Wall mounted IT equipment without separate cooling system.

Existing Honeywell fire alarm system is not code compliant.

City of Bloomington

Bloomington, MN

Building Assessment Study Estimate Forecast

Architecture | Engineering | Planning

Creekside Community Ctr. Bldg. Assessment

HGA Comm. # : 2064-002-00 Date: 20-Apr-15

	Description of Work	**Total $**
1.	*New sprinkler system*	$218,129
2.	*Restroom addition - 700 SF*	$285,313
3.	*Cosmetic interior improvements to moisture*	$6,284
4.	*Window replacement*	$516,875
5.	*Re-point exterior face brick walls*	$95,875
6.	*Raise roof edge of exterior block walls 2'-0"*	$628,725
7.	*New building HVAC/cooling systems*	$1,183,155
8.	*Replace gym AHU, chiller, fan coil cooling & unit ventilators*	$67,375
9.	*Replace distribution panel with larger capacity*	$215,625
10.	*Cooling system @ telecom closet*	$25,000
11.	*Misc. electrical upgrades*	$78,125
12.	*New fire alarm system*	$187,500
13.	*Remove/replace ashphalt parking and curbs*	$544,223

Total Construction Cost	**$4,052,204**
Const. Escalation to Midpoint Mar. 1, 2016 - 6%	$243,132
Total Construction Cost w/Escal.	**$4,295,336**

Clarifications/Qualifications

1. *This estimate is for budget purposes only.*
2. *No hazardous material or asbestos abatement included.*
3. *No off hour or premium time figure, all work figure at normal working hours.*

City of Bloomington

Bloomington, MN

Building Assessment Study Estimate Forecast

Architecture | Engineering | Planning

Bldg. Assessment - Detail

HGA Comm. # : 2064-002-00 20-Apr-15

1.	**New sprinkler system**				
	New fire water supply line (Allowance)	150	LF	$75.00	**$11,250.00**
	Interior wall demo/repair (Allowance)	50	EA	$500.00	**$25,000.00**
	Fire sprinkler system	25,137	SF	$5.50	**$138,253.50**
	Contractor O&P	1	LS		**$43,625.88**
	Total				**$218,129.38**
2.	**Restroom Addition**				
	Water closets	14	EA	$3,000.00	**$42,000.00**
	Lav. sinks	13	EA	$2,500.00	**$32,500.00**
	Special fixtures - water coolers	2	EA	$3,750.00	**$7,500.00**
	Exhaust Fan	11	EA	$250.00	**$2,750.00**
	Electrical - lighting & power	700	SF	$25.00	**$17,500.00**
	Toilet room finishes	700	SF	$180.00	**$126,000.00**
	Contractor O&P	1	LS		**$57,062.50**
	Total				**$285,312.50**
3.	**Cosmetic improvements to moisture problems**				
	Cosmetic repair of exist. ceilings	2,514	SF	$ 2.00	**$5,027.40**
	Contractor O&P	1	LS		**$1,256.85**
	Total				**$6,284.25**
4.	**Window replacement**				
	Remove exist. windows/rough bucks	5,015	SF	$15.00	**$75,225.00**
	New Windows	5,015	SF	$65.00	**$325,975.00**
	Rough carpentry/hardware	2,000	LF	$3.65	**$7,300.00**
	Caulking	2,000	LF	$2.50	**$5,000.00**
	Contractor O&P	1	LS		**$103,375.00**
	Total				**$516,875.00**
5.	**Re-point exterior face brick walls**				
	Re-point exterior face brick walls	3,068	SF	$25.00	**$76,700.00**
	Contractor O&P	1	LS		**$19,175.00**

	Total			**$95,875.00**
6.	**Raise roof edge of building**			
	Demo exist. roof edge flashing/rough carpentry	675 LF	$5.00	**$3,375.00**
	Demo exist. roof	25,137 SF	$3.00	**$75,411.00**
	Add new face brick/masonry parapet wall.	1,350 SF	$58.00	**$78,300.00**
	Scuppers	8 EA	$750.00	**$6,000.00**
	New EPDM roof system w/tapered insulation	25,173 SF	$11.00	**$276,903.00**
	Roof blocking	2,025 LF	$3.75	**$7,593.75**
	Cap flashing	675 LF	$25.00	**$16,875.00**
	New expansion joints (Allowance)	350 LF	$15.00	**$5,250.00**
	Roof Drains	6 EA	$3,500.00	**$21,000.00**
	Fill exist. back-up block walls with vermiculite	3,068 SF	$4.00	**$12,272.00**
	Contractor O&P	1 LS		**$125,744.94**
	Total			**$628,724.69**
7.	**New HVAC/cooling systems**			
	Demo exist. ductwork	25,137 SF	$2.00	**$50,274.00**
	Demo AHU	1 EA	$2,500.00	**$2,500.00**
	Demo Chiller	1 EA	$2,000.00	**$2,000.00**
	Demo Fan Coil Units	24 EA	$500.00	**$12,000.00**
	Demo Unit Ventilators	4 EA	$500.00	**$2,000.00**
	New AHU	25,000 CFM	$8.00	**$200,000.00**
	VAV box	21 EA	$1,500.00	**$31,250.00**
	CUH	4 EA	$3,500.00	**$14,000.00**
	New AC Chiller	75 TN	$700.00	**$52,500.00**
	Heating /cooling piping	25,000 SF	$5.00	**$125,000.00**
	Supply/exhaust air ductwork	30,000 LBS	$6.00	**$180,000.00**
	Diffusers/registers/grilles	25,000 SF	$1.50	**$37,500.00**
	Duct Insulation	25,000 SF	$3.00	**$75,000.00**
	Pipe Insulation	25,000 SF	$1.50	**$37,500.00**
	Temperature Control	25,000 SF	$5.00	**$125,000.00**
	Contractor O&P	1 LS		**$236,631.00**
	Total			**$1,183,155.00**
8.	**Replace gym AHU, chiller, fan coil cooling and unit ventilators**			
	Equipment demolition	1 LS	$10,000.00	**$10,000.00**
	New AHU	2,500 CFM	$9.00	**$22,500.00**

New chiller	8	TN	$800.00	**$6,400.00**
New fan coil cooling	1	LS	$10,000.00	**$10,000.00**
New unit ventilators	2	EA	$2,500.00	**$5,000.00**
Contractor O&P	1	LS		**$13,475.00**
Total				**$67,375.00**

9. **Replace distribution panel and associated room panels**

Remove exist. main panel	1	EA	$15,000.00	**$15,000.00**
Remove exist. room panels	15	EA	$5,000.00	**$75,000.00**
New 120/208V 3 phase 800A panel	1	EA	$30,000.00	**$30,000.00**
New feeder panels	15	EA	$3,500.00	**$52,500.00**
Contractor O&P	1	LS		**$43,125.00**
Total				**$215,625.00**

10. **Cooling system at telecom closet**

IT closet cooling/room power	1	EA	$5,000.00	**$5,000.00**
IT closet cooling system	1	EA	$15,000.00	**$15,000.00**
Contractor O&P	1	LS		**$5,000.00**
Total				**$25,000.00**

11. **Misc. electrical upgrades**

Chiller emergency back-up	1	EA	$50,000.00	**$50,000.00**
Battery pack egress lighting	5	EA	$1,500.00	**$7,500.00**
Battery pack exit signs	5	EA	$1,000.00	**$5,000.00**
Contractor O&P	1	LS		**$15,625.00**
Total				**$78,125.00**

12. **New fire alarm system**

Remove exist. fire alarm	25,000	SF	$1.00	**$25,000.00**
Fire Alarm	25,000	SF	$5.00	**$125,000.00**
Contractor O&P	1	LS		**$37,500.00**
Total				**$187,500.00**

13. **New parking lot**

Remove exist. asphalt	94,471	SF	$0.55	**$51,959.05**

remove exist. curbs	3,250	LF	$5.00	**$16,250.00**
New asphalt	10,497	SY	$25.00	**$262,419.44**
New curbs	3,250	LF	$15.00	**$48,750.00**
Paint stalls	200	EA	$25.00	**$5,000.00**
Pavement Markings	20	EA	$50.00	**$1,000.00**
Site Lighting	10	EA	$5,000.00	**$50,000.00**
Contractor O&P	1	LS		**$108,844.62**
		Total		**$544,223.12**

Construction Cost Total	**$4,052,203.93**