

## 2. Physical Condition

### 2.1 Physical Condition Rating System

Each component and room of the facility was analyzed and graded using a color coded format. The item was assigned a code value ranging from i to vii based on physical condition.

- Items graded i or ii are generally in good or satisfactory condition and are suitable for continued use with normal operational maintenance or require minor repair or restoration.
- Items graded iii or iv are in fair-to-poor condition and are suitable for continued use with moderate to significant restoration.
- Items graded v, vi or vii have reached the end of their useful life. Extensive restoration, updating, or replacement is required.

<b>CODE</b>	<b>RATING</b>	<b>ACTION REQUIRED</b>	<b>RATING DESCRIPTION</b>
i	Good	Minimal Renovation	Suitable for continued use with normal operational maintenance.
ii	Satisfactory	Limited Renovation	Minor deterioration. Requires minor repair or restoration to present acceptable conditions.
iii	Fair	Moderate Renovation	Moderate deterioration or partial obsolescence. Requires moderate restoration or updating.
iv	Poor	Significant Renovation	Significant deterioration or obsolescence. Requires significant restoration, updating, or partial replacement of components.
v	Unsatisfactory	Major Renovation	Extensive deterioration or obsolescence. Requires extensive restoration, updating, and significant replacement of systems and/or components.
vi	Replace	Complete Replacement	Is deteriorated beyond restoration, completely obsolete, or unsuitable for proposed use. Requires complete replacement of systems and/or components.
vii	Abandonment	Demolition/Removal	Not needed; not suitable for proposed use; should not be replaced. Demolition/removal required.



## 2.2 Physical Condition - Architectural



## 2.2 ARCHITECTURAL

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

### PHYSICAL CONDITION ASSESSMENT

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
<b>A</b>	<b>STRUCTURE</b>					
<b>A10</b>	<b>Foundations</b>					
A1010	Standard Foundations	Consist of spread and strip footings. At north side, exterior footings strap with interior for tight lot line.			i	It appears foundations are performing satisfactorily as there is no apparent signs of settlement
A1020	Special Foundations	None				
<b>A20</b>	<b>Subgrade Enclosures</b>					
		Combination of cast-in-place concrete and masonry walls. Primarily, masonry is only used where the is or was some exposure to the exterior, above grade.			i	Generally these walls are in good shape. There is some moisture ingress in the Henry St. stairwell, right near where exterior sidewalk grade is located. There is one concrete wall panel on the north side at the basement area, where some cracking had occurred in the past and there had been some moisture leakage. It is possible this cracking occurred due to temporary pressures during construction of the parking structure. Other past moisture ingress is apparent at the masonry basement wall on the Henry St end.  Figures 1 & 2
<b>A40</b>	<b>Slabs-on-Grade</b>					
		Existing drawings indicate slabs to be 5" thick, but it is unknown if or how these are reinforced.			ii	Included with B10  Slabs display a varying degree of levelness, with some old cracking, likely indicating localized subgrade settlements occurring long ago. They are serviceable for the current use. There is a curious, somewhat mounded asphalt area on the ground floor level, purpose unknown. It was noted column bases at slab-on-grade had a tapered concrete extension, presumably to cover steel base plate extensions. These concrete "covers" display varying extents of cracking and break-out. In vehicle storage areas, it would be prudent to  Figures 3, 4 & 5

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
<b>B</b>	<b>SHELL</b>					clean, coat and protect the column bases and re-install the concrete encasements.
<b>B10</b>	<b>Superstructure</b>					
B1010	Floor Construction First Floor	This floor structure is of pan-joint construction, consisting of 6" wide by 12" deep concrete joists spaced at 26" oc. and overlain by a 3" concrete slab. These joists are in turn supported by steel wide-flange beams, encased in concrete. Steel wide-flange columns encased in concrete complete the superstructure support.	18,225	sqft	ii	This floor structure appears to be performing well. As a large portion of this floor is used for vehicle traffic and storage to some extent, the structure has been exposed to significant moisture and corrosive salts and has undergone significant concrete and steel reinforcing deterioration. This resulted in a large concrete renovation in 2009. Part of this renovation included installation of a waterproof wear membrane on the top surface of all vehicle areas. The only current leakage noted occurs at the floor drains, where sealant and membrane have worn/failed to some degree. There is some minor underside spalling/reinforcing corrosion that is apparent and was not addressed as part of the concrete renovation. These are, at this time, not structurally significant. With continued vehicle use, membrane performance and possible concrete deterioration should be monitored.
	Floor Construction Ground Floor	See B1010. In addition to the cast-in-place concrete joist structure, about half of this level is composed of non-structural concrete slab-on-grade.	18,200	sqft	ii	See B1010 for discussion of joist floor structure and A40 above for discussion of slab-on-grade.

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
B1020	Roof Construction -Main	See B1010 for general description of structural system.			i	Again, this structure appears to be performing very well. Existing documents imply this level to be designed as a future floor. Indeed, there are short box enclosures visible on the roof, which encase the steel column stub extensions for future vertical expansion. Original documents indicate a concrete topping of approximately 3" to be placed over the joist/slab structure. It is unknown if this was actually placed.
	Roof Construction Stair wells	The roof structure over the stairs consists of wood decking over 2x wood joist which differs from the rest of the roof structure with the possible intent of vertical expansion			iii	SW Stair roof structure shows visible water damage to the wood structure. Additional water damage is shown on the interior brick façade where the joists bear. NE stair roof structure appears to be in adequate condition with no water damage apparent.
B1080	Stairs - SW	Steel pan concrete filled w/ steel stringers. Stair runs from 1 <sup>st</sup> floor down to basement level.	137	sqft	ii	Stair treads and risers were in serviceable condition with some slight cracking in the concrete. The existing rise measured 7" and the depth of the tread measure 11" at the deepest point typically. The existing guard rail between runs consists of a 1-1/2" dia pipe with vertical supports and 2 horizontals. The guardrails would not meet current code standards. There are no individual handrails for these stairs. These stairs exit directly to the exterior.
	Stairs - NE	Steel pan concrete filled w/ steel stringers. Stair runs from 1 <sup>st</sup> floor down to ground floor.	157	sqft	ii	The NE stair stairs are similar in construction to the SW stair above. The configuration of the stair run is a different layout from the SW stair. From the lower landing down to the ground floor the stairs turn 90 and include winder stairs at this location.

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
B1090		Circular stair			vii	The headroom clearance at this point is below the code required 6'-8" minimum (fig 24). This stair does not exit directly to the exterior
		Ramp – interior First Floor	1		i	Connects basement to ground floor. Does not meet code or ADA requirements Ramp at first floor runs in the corridor and is in good condition. The slope appears to meet ADA requirements.
B20		Exterior Vertical Enclosures				
B2010		Exterior Enclosure Walls			iii	The exterior walls have undergone some repairs over the years with a tuck-pointing exercise done in 2013. The facades currently have various areas that will require additional tuck pointing to the brick and terra cotta. Additional areas will require more extensive brick removal and replacement to fix cracked and curved sections.
B2015		Exterior Enclosure Walls - Fairchild Street	1,370	sqft	iii	On this façade, there are a couple areas near the sidewalk level, where brick faces have spalled from freeze-thaw. In general, the façade appears to be performing well, without apparent structural distress. Near the Fairchild/Doty corner, a round column base displays deterioration near the side walk. Wire reinforcing wrapping around the column for the concrete enclosure is very close to the surface and has corroded, causing concrete to fragment. Repair may entail fairly extensive removal of the concrete wrap and reinstallation of reinforcing and concrete encasement.



Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
	Exterior Enclosure Walls – Doty Street	See B2010	12,247	sqft	iii	The façade appears to be in good repair, without apparent structural distress. There are a number of terracotta tiles that display some cracking or small face chipping/spalling.
	Exterior Enclosure walls – Henry Street	See B2010	2,666	Sqft	iii	The façade appears to be in good repair, without apparent structural distress. There are a number of terracotta tiles that display some cracking or small face chipping/spalling.
B2020	Exterior Windows	Steel sash windows with brick or terra cotta sills on the exterior and a sloped brick/concrete sill on the interior	See elevs		vi	Windows appear to be original and are single glazed with a mixture of clear and frosted glass. Most windows have an operable hopper section in the middle which when closed do not provide a significant seal. Very little thermal quality. Several existing windows are covered on the exterior with painted plywood. Window sizes: First floor 6'-8"H x 6'-0" or 4'-0" wide, Ground Floor varies with grade 6'-8"H x 6'-0" wide, lower level are currently all covered with plywood.
	Exterior Windows	Glass Block	1		ii	Located at entry on Fairchild street, not part of the original construction, but installed as a remodel at a date unknown.
B2050	Exterior Doors	Non insulated hollow metal doors.	2		ii	<ul style="list-style-type: none"> <li>SW stair exit door size 3'-0" x 6'-8" h, painted.</li> <li>Ground Floor exit door off Owen Street, size 3'-0" x 6'-8" H exit door adjacent to overhead door – not ADA</li> </ul>
						Figure 14
						Figure 15
						Figure 26 thru 31 See elevations
						Figure 32 & 33
						Figure 34 & Fig. 18

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
B2060	Exterior Door	Aluminum entry door	1		vi	Main entry door located on Fairchild street. Single pane glass size 3'-6" x 6'-8" H
	Exterior grilles	Metal louvers for exhaust and intake air	Various		v	(3) existing louvers are located in the brick veneer along Owen Street, 2 from the original design and one added at a later date. The remaining louvers are within the previous window openings which have been covered with plywood.
B2070	Overhead Doors	Automatic roll up coiling metal doors. Non Insulated	(3) first floor (1) ground floor (1) basement		i	Exterior overhead doors located at each level for vehicle access. First floor: (1) 12'-0" wide x 10'-0" high access. (1) 8'-0" w x 10'-0" high at loading dock. Ground floor: (1) 10'-0" wide x 9'-8" h at entry off Owen st Basement: (1) 10'-0" wide x 9'-8" h
<b>B30</b>	<b>Roofing</b>					
B3010	Roofing	EPDM roofing with ballast stone over concrete structure. No apparent insulation.	18,040	sqft	vi	Membrane appears worn with multiple areas of visible repairs. Membrane is "tenting" at areas along the parapet (figs 40 & 41 ). Short boxed column enclosures protrude through roof plane. Perimeter lined with various original and added vent stacks. Existing brick chimney brick work is in poor condition.
B3020	Roof Appurtenances	Roof Drains	6		ii	Roof drains running North-South along center of roof, appear to be functioning properly
B3060	Horizontal Openings	Roof hatch	1		iii	Located in SW stairwell with straight ladder access from First Floor. Hatch leaks, not apparent if it is the door or flashing at roof line.
B3080	Overhead Exterior Soffits	Cement stucco on metal joists	Each overhead		ii	Finish exterior surface appears to be in good condition.

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
<b>C</b>	<b>INTERIORS</b>					
<b>C10</b>	<b>Interior Construction</b>					
C1010	Interior Partitions – First Floor	CMU walls, metal stud with gypsum board			i	Mixture of CMU infill walls separating main Mall maintenance area. Rooms along West are metal stud and drywall construction. Various levels of finish to these walls
	Interior Partitions – Ground Floor	CMU walls & Gypsum board			ii	Minimal walls – Gypsum wall around elevated storage are in SE corner.
	Interior Partitions - Basement	CMU walls			i	Minimal walls
	Interior partition - Stairwell	Painted brick			iii	SW stair has stress cracks in areas.
C1020	Interior Windows	None				Fig. 56
C1030	Interior Doors – Frist Floor	Wood			i	First floor doors are primarily are wood doors with wood frame. Bathroom doors are 2'-8" x 6'-8" and the remaining doors vary from 3'-0" wide and larger. Minor damage to doors. Door from Mall parking to Storage F is Hollow metal 3'-0" x 6'-8" h
	Interior Doors - Stairwell	Hollow Metal			iii	Hourly Rating to be verified
C1040	Interior Grilles & Gates	Automatic roll up coiling metal doors on insulated	(1)		i	(1) 12'-0" wide x 10'-0" h inside in line with exterior.
C1070	Suspended Ceiling Construction	2 x 2 ACT suspended ceiling	758	Sqft	v	First floor office, break room and a couple of storage rooms currently have an ACT suspended ceiling grid that is worn and dated. Remainder of the building have the exposed underside of the floor structure. Structure finish varies between painted and unfinished areas
		Gyp Board ceiling - painted	538	sqft	ii	Frist floor Mens and Womens restroom/ locker room, painted – visually in good shape

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
<b>C20</b>	<b>Finishes</b>					
C2010	Wall Finishes – First floor Gen.	Painted CMU & Gypsum board			iii	Areas of unpainted drywall on first floor. Plaster covering of CMU in corridor. Various areas of minor damage (see Fig 54)
	Exterior Walls	Painted brick			ii	Layer of dirt built up on surface, paint in satisfactory shape
	Wall Finishes – Ground Floor Gen.	Painted CMU & concrete			iii	Various unpainted areas
	Exterior walls	Painted brick			ii	Layer of dirt built up on surface
	Wall Finishes – Basement Gen.	Exposed cmu & concrete walls			iii	
C2030	Flooring – First Floor General	Concrete topping with waterproof wear membrane /sealed concrete topping slab	7,187 – waterproof fining areas	Sqft	ii	Concourse Mall area: Waterproofing traffic membrane – see B1010 for information. Otherwise the sealed concrete area appears to be in good shape with minor stress cracks in various locations.
	Storage Room F	Concrete topping slab	3650	Sqft	v	A large portion of this area has a concrete topping of 1.5" to 2". This topping is in varying condition and it appears that it was patched at an earlier undetermined time. In the SW corner and North end of the room it has been removed all together, with tapered concrete is used within this room to make the offset transition at two locations. See Figure 7 in 1.4 Existing Conditions for approximate area of the topping.
	Janitors Room	VCT	211	Sqft	vi	VCT is cracked, worn and missing in areas. No record on initial installation but could be a candidate to be tested for possible asbestos

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
	Mall Office	VCT	274	Sqft		VCT is worn but intact. Similar candidate to the Janitors room
	Bathrooms / Locker room	Ceramic Tile	538	sqft	ii	8" x 8" tiles that are dated but no apparent damage.
	Flooring -- Ground Floor	Conc topping with waterproof wear membrane /Slab on grade	6,516 - waterproof fmg areas	sqft	i	Included with B1010
	Flooring - Basement	Exposed Slab on grade	6,570	sqft	i	Included with B1010
C2040	Stair Finishes	Concrete			iv	Included with B1080
C2050	Ceiling Finishes	ACT, Gypsum Board & Exposed				Included with C1070
<b>D</b>	<b>SERVICES</b>					
<b>D10</b>	<b>Conveying</b>					
D1010	Elevators	None				
D1020	Lifts	None		Lbs.		
<b>E</b>	<b>EQUIPMENT &amp; FURNISHINGS</b>					
<b>E10</b>	<b>Equipment</b>					
E1010	Vehicle & Pedestrian Equipment	Loading dock			iii	w/ dock leveler located on Fairchild street - operational
<b>G</b>	<b>SITWORK</b>					

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 3-16-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS
G2010	Roadways	None				
G2020	Parking Lots	None				
G2060	Site Development	Concrete sidewalk & approaches			iv	Building abuts sidewalk on Henry and Owen Streets. Loading dock and storage area on Fairchild street with concrete approach to front door. Cracking concrete in this area
G2080	Landscaping	None				Fig. 31, 37 & 49

# PHYSICAL CONDITION ASSESSMENT

Crack and past leakage at north foundation



Figure 1

Moisture ingress at Henry St foundation



Figure 2

Typical slab-on-grade



Figure 3

Asphalt mound/patch on slab-on-grade



Figure 4

Concrete extension around column base



Figure 5

Typical floor construction – joists and beams



Figure 6

# PHYSICAL CONDITION ASSESSMENT



Underside of first – past leakage (not active)

Figure 7



First floor – area of substantial concrete renovation

Figure 8



First floor – membrane deterioration at drain

Figure 9



First floor – topping and removed topping

Figure 10



Typical roof construction

Figure 11



Rooftop – showing column stub enclosures

Figure 12



# PHYSICAL CONDITION ASSESSMENT

Column base deterioration



Figure 13

Cracked terracotta tile



Figure 14

Chipped/spalled/stained terracotta



Figure 15

Caulk joint failing at brick and sidewalk



Figure 15a

Caulk joint failing at brick and sidewalk



Figure 15b

Figure 15c – Ground floor entry door



PHYSICAL CONDITION ASSESSMENT



Figure 16 – SW Stair Roof



Figure 17 – NE Stair Roof



Figure 18 – SW stair detail



Figure 19 – SW Stair Railing



Figure 20 – SW Stair Railing Detail



Figure 21 – NE Stair Detail

## PHYSICAL CONDITION ASSESSMENT



Figure 22 – NE Stair Railing at landing



Figure 23 – NE Stair Winder detail



Figure 24 – NE Stair Headroom issue



Figure 25 – First floor ramp



Figure 26 – Typical window



Figure 27 – Typical window sill detail

# PHYSICAL CONDITION ASSESSMENT



Figure 28 – Typical window detail



Figure 29 – Exterior window detail



Figure 30 – Interior Window detail covere



Figure 31 – Exterior window infilled with plywood



Figure 32 – Glass block window @ entry



Figure 33 – Exterior image of Glass Block window

# PHYSICAL CONDITION ASSESSMENT



Figure 34 – Exterior stair door



Figure 35 – Overhead Door @ basement



Figure 36 – Over Head Door @ Ground Floor



Figure 37 – Overhead Door @ Loading Dock

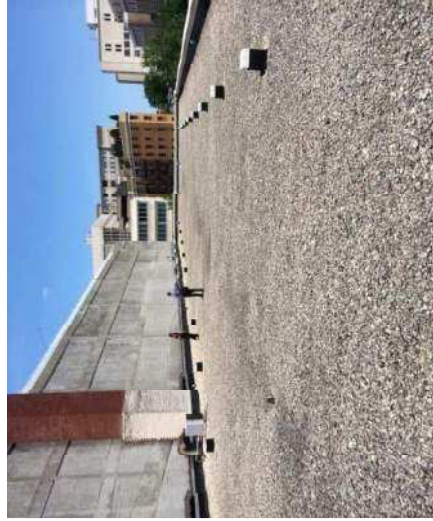


Figure 38 – Roof Looking North



Figure 39 – Roof vents along West @ parking garage

PHYSICAL CONDITION ASSESSMENT

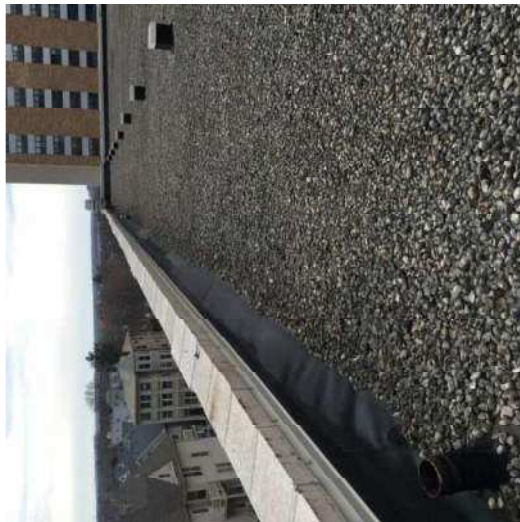


Figure 40 – Terra Cotta Parapet detail - East



Figure 41 – Roof edge @ parking garage



Figure 42 – Flashing curb detail



Figure 43 – SE Corner roof vent



Figure 44 – Brick Chimney



Figure 45 – Brick Chimney detail

# PHYSICAL CONDITION ASSESSMENT



Figure 46 – Roof Hatch at Stair SW



Figure 47 – Roof hatch access



Figure 48 – Soffit @ Ground floor entrance



Figure 49 – Soffit @ Loading Dock



Figure 50 – Entry soffit



Figure 51 – CMU infill wall

# PHYSICAL CONDITION ASSESSMENT



Figure 52 – Gypsum wall



Figure 53 – Gypsum & Cmu walls



Figure 54 – Plaster over cmu wall damage



Figure 55 – Plaster damage @ glass block

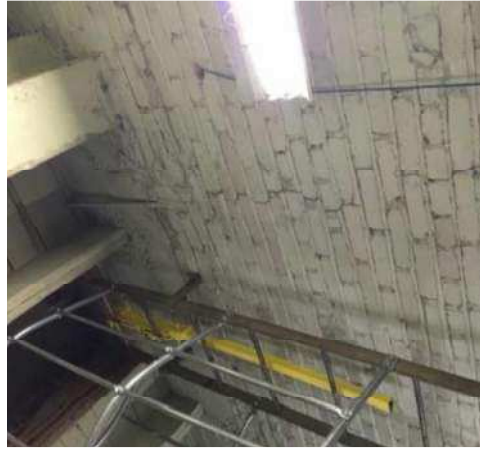


Figure 56 – Stress cracks in brick wall @ SW stair



Figure 57 – Storage Door first floor with steps



## PHYSICAL CONDITION ASSESSMENT



Figure 58 - Interior Hollow Metal Door



Figure 59 - Interior wood door & Gypsum



Figure 60 – Break room 2 x 2 ACT ceiling



Figure 61 – Ground Floor Exposed Ceiling



Figure 62 – First Floor Exposed Ceiling

# PHYSICAL CONDITION ASSESSMENT



Figure 63 – Conc floor cracks



Figure 64 – Ceramic Tile in locker room



Figure 65 – Ceramic tile in bathrooms



Figure 66 – VCT in Mall maintenance office



Figure 67 – VCT in First Floor mechanical room



Figure 68 – Ramp in First floor hallway

## PHYSICAL CONDITION ASSESSMENT



Figure 69 – Concrete slab missing at First floor South wall



Figure 70 – Concrete slab offset with ramp

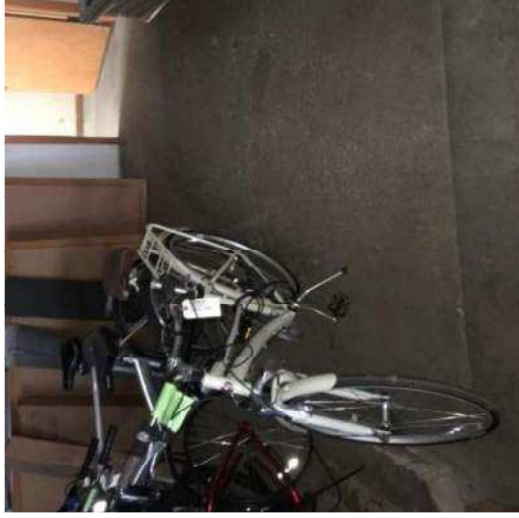


Figure 71 – Concrete slab offset with ramp at door

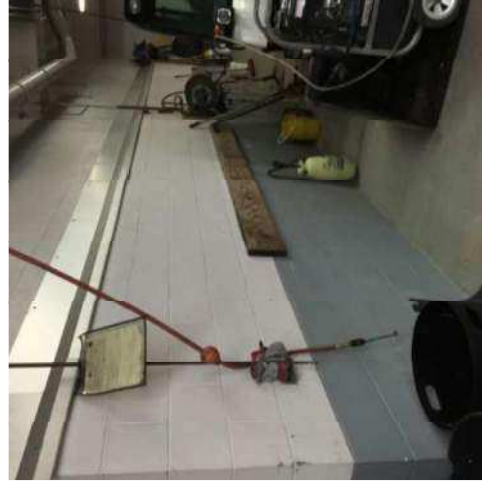


Figure 72 – First Floor overhead Power washer



Figure 73 – First Floor Mechanical Room



Figure 74 – First Floor Men's Bathroom

Institution | City of Madison  
Building Name | Fairchild Building  
Building Number | 120 South Fairchild Street

Date 3-16-16

## PHYSICAL CONDITION ASSESSMENT



Figure 75 – First Floor Women's Restroom



Figure 76 - EWC First Floor Hallway

## 2.3 Physical Condition – Mechanical, Electrical & Plumbing



# 2.2 MECHANICAL, ELECTRICAL & PLUMBING

Date 5-09-16

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

## PHYSICAL CONDITION ASSESSMENT

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS	PHOTOS
D30	HVAC						
D3010	Facility Fuel Systems	No piped distribution system.			N/A	No diesel fuel on-site. Only natural gas by MG&E serves the steam heating system.	
D3020	Heating Systems	Steam is provided by existing steam boiler. Kewanee boiler 2950 MBH. Equipment is operational, but at the end of useful life.	1	2950 MBH. 2520 lbs/hr	iii	Steam Boiler, feedwater tank, and condensate pump are in fair condition. Recommend the steam heating equipment is replaced as the need of function requires.	Fig. 101-112
D3020.10	Heat Generation	All piping distribution is operational, but at the end of useful life.		Steam: lbs/hr	v	Steam and steam condensate piping distribution needs to be replaced when changes to any system are made. The original piping is significant corroded. Steam traps also need to be replaced.	Fig. 144-152
D3020.70	Decentralized Heating Equipment	Multiple steam cabinet unit heaters, unit heaters make-up air units and convectors serving many different areas and functions. Equipment is operational, but at the end of useful life.			iv	Units are of various ages, size and conditions. They are replaced as the need of function requires.	Fig. 103-127
D3030	Cooling Systems	Air-cooled condensing units serving only the Upper Level maintenance support areas. The cooling equipment is operational, but at the end of its useful life.			iii	Carrier unit are in fair condition. The unit shall be replaced as the need of function requires.	
D3030.10	Central Cooling			tons	N/A	No district cooling system.	
D3030.70	Decentralized Cooling	There are a number window air-conditioners serving offices.		< 2 Ton	iv	Units are of various ages, size and conditions. They are replaced as the need of function requires.	Fig. 133-128
D3050	Facility HVAC Distribution Systems	AHUs are operational, but at the end of their useful life. There are AHUs for ventilation/heating serving parking/repair areas and air-conditioning unit serving the maintenance support areas.			iv	Units are of various ages, size and conditions. They are replaced as the need of function requires.	Fig. 128-134
D3050.10	Facility Hydronic Distribution				N/A	No hydronic system.	
D3050.30	Facility Steam Distribution	All piping distribution is operational, but at the end of useful life.			v	Steam and steam condensate piping distribution needs to be replaced when changes to any system are made. The original piping is significant corroded. Steam traps also need to be replaced.	Fig. 113-127
D3060	Ventilation	All ductwork distribution is operational, but at the end of its useful life.	5,000	CFM	iv	All ductwork needs to be replaced when changes to any system are made.	Fig. 130-134
D3080	HVAC Instrumentation & Controls	System is operational, but at end of its useful life. There is no Building Automation System.			iv	Controls needs to be upgraded when changes to any system are made.	

PHYSICAL CONDITION ASSESSMENT



Figure 101 – Boiler Front



Figure 102 – Boiler RearWater



Figure 103 – Side



Figure 104 – Boiler Nameplate



Figure 105 – Feedtank Front



Figure 106 – Feedtank Rear



Figure 107 – Boiler Feedtank Pumps



Figure 108 – Feedtank Nameplate



Figure 109 – Soften Water Tank



Figure 110 – Feedtank Rear



Figure 111 – Condensate Tank



Figure 112 – Condensate Tank Nameplate



PHYSICAL CONDITION ASSESSMENT



Figure 113— Convector Unit



Figure 114 – Convector Unit



Figure 115 – Convector Unit



Figure 116 – Convector Unit



Figure 117 – Convector Unit



Figure 118 – Convector Unit



Figure 119 – Convector Unit



Figure 120 – Convector Unit



Figure 121 – Convector Unit



Figure 122 – Convector



Figure 123 – Convector



Figure 124 – Heating



Figure 125 – Unit Heater



Figure 126 – Convector



Figure 127 - Convector

PHYSICAL CONDITION ASSESSMENT



Figure 128 -- AHU Soften Water Tank



Figure 129 -- AHU-1 Ductwork



Figure 130 -- Hallway Ductwork



Figure 131 -- Hallway Ductwork



Figure 132 -- Hallway Ducts



Figure 133 -- Hallway Ducts



Figure 134 -- Room Return Grille



Figure 135 -- Room AC Unit



Figure 136 -- Room AC Unit

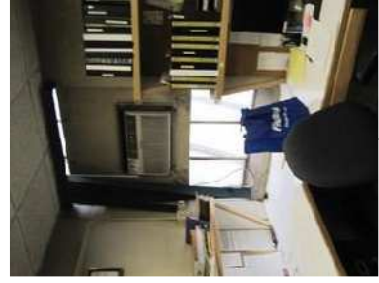


Figure 137 -- Room AC Unit



Figure 138 -- Room AC Unit

PHYSICAL CONDITION ASSESSMENT



Figure 139 – Restroom Exhaust Grille



Figure 140 – Exhaust Fan



Figure 141 – Condensate Tank Nameplate



Figure 142 – Make-up Air Unit



Figure 143 – Make-up Air Unit Nameplate



Figure 144 – Steam Piping



Figure 145 – Steam Piping



Figure 146 – Steam Piping



Figure 147 – Steam and Condensate Piping

PHYSICAL CONDITION ASSESSMENT



Figure 148 – Steam Piping



Figure 149 – Steam Condensate



Figure 150 – Steam Piping



Figure 151 – Steam Piping



Figure 152 – Steam Piping



Figure 153 – Exhaust Grille



Figure 154 – Exhaust Floor Opening



Figure 155 – Exhaust Floor Opening

# PHYSICAL CONDITION ASSESSMENT



Figure 156 – Ventilation Duct



Figure 157 – Ventilation Duct



Figure 158 – Makeup Air Unit

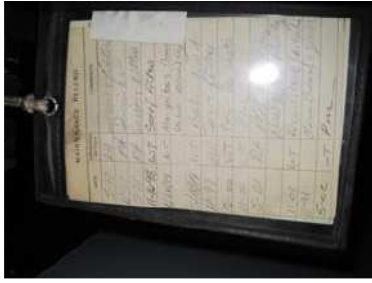


Figure 159 – Unit Maintenance



Figure 160– Unit Nameplate



Figure 161 – Electric Actuation on Unit



Figure 162 – Ventilation Duct



Figure 163 – Steam Piping



Figure 165 – Makeup Unit



Figure 166 – Exhaust Duct



Figure 164 – Remove Unit

PHYSICAL CONDITION ASSESSMENT



Figure 167 – Lower Level Exhaust



Figure 168 – Combustion Air Duct



Figure 169 – Condensate Tank Nameplate



Figure 170 – Ventilation Unit



Figure 171 – Ventilation Unit



Figure 172 – Lower Level Exhaust



Figure 173 – Lower Level Exhaust



Figure 174 – Lower Level Exhaust

PHYSICAL CONDITION ASSESSMENT



Figure 175 - Ventilation



Figure 176 - Steam Valve Boiler Isolation

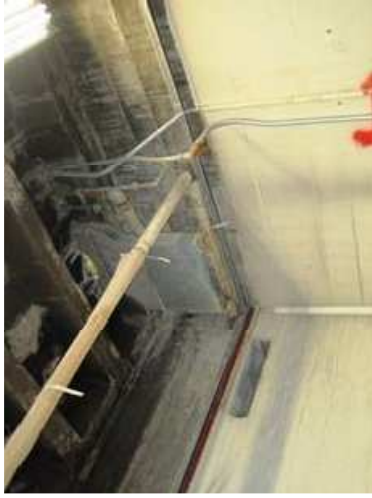


Figure 177 - Lower Level Exhaust



Figure 178 - Boiler Combustion Air Duct



Figure 179 - Combustion Air Duct



Figure 180 - Combustion Air Duct



Figure 181 - Parking Garage Vent Discharge



Figure 182 - Exhaust Fan Parking Garage



Figure 183 - AHU-1 Air-Cooled Condensing Unit

PHYSICAL CONDITION ASSESSMENT



Figure 182 – Refrigeration Lines



Figure 183 – Roof



Figure 184 – Parking Garage Vent Discharge



Figure 185 – Parking Garage Vent Discharge



Figure 186 – Roof Exhaust Fan



Figure 187 – Roof Exhaust Fan



Figure 188 – Masonry Chimney for Boilers



Figure 189 – Masonry Chimney for Boilers



Figure 190 – Masonry Chimney





Figure 191 – Roof Exhaust Fan

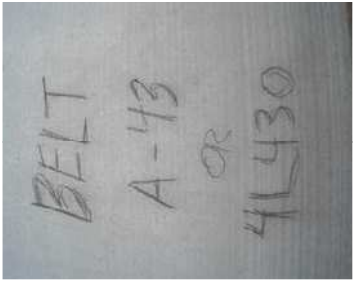


Figure 192– Roof Exhaust Fan Info.

Institution **City of Madison**  
Building Name **Fairchild Building**  
Building Number **120 South Fairchild Street**

Date **5-09-16**

**PHYSICAL CONDITION ASSESSMENT**

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 5-09-16

**PHYSICAL CONDITION ASSESSMENT**

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS	PHOTOS
<b>D50</b>	<b>Electrical</b>						
D5010	Facility Power Generation	None on-site.		KVA	N/A	No emergency generator on-site.	
D5020	Electrical Service and Distribution	MG&E Service. Electrical distribution is operational.		KVA	v	Electrical distribution may need to be replaced when significant changes to electrical system are made.	Fig. 201-209
D5020.10	Electrical Service	MG&E Service. Electrical distribution is operational, but at end of its useful life.		KW	v	Electrical metering, substations, transformers, switchgear will need to be replaced when changes to system are made.	Fig. 201-209
D5020.30	Power Distribution	120/208V power distribution system is in poor condition. Electrical distribution is operational, but at end of its useful life.		KVA	v	Switchboards, panelboards, bus assemblies, feeders will need to be replaced when changes to system are made.	Fig. 210-250
D5030	General Purpose Electrical Power	120/208V power distribution system is in margin condition. Electrical panelboards, wiring and devices has been upgraded, but at end of its useful life.			iv	Branch wiring and devices need to be replaced when change to any system are made.	Fig. 210-250
D5040	Lighting	Lighting has been upgraded in facility with occupancy sensors controls. Lighting Lower level parking garage is margin for adequate light levels. Many facilities are designed to 5 footcandles (horizontal and vertical) with uniformity ratios near 5:1			ii	Upper level lighting is reasonable condition. Recommend potential reuse or repurposing or replacing with new LED fixtures when changes to system are made. For parking areas there are three types of high intensity discharge (HID) fixtures: cutoff, semi cutoff and refractor.	Fig. 254-280 Fig. 300-305
D5080	Miscellaneous Electrical Systems				NA	No Lightning protection on roof.	
<b>D60</b>	<b>Communications</b>						
D6010	Data Communication Systems	Not viewed.			iv	Unable to gain access to review.	
D6020	Voice Communication Systems	Telephone system is obsolete system.			iv	Telephone is obsolete system. Recommend changing to VoIP Services Solutions.	Fig. 281-290
D6030	AV Communication Systems	There is paging intercom at front entry and to maintenance staff area.			v	Recommend paging system replacement when changes to any system are made.	Fig. 291-293
D6060	Distributed Communications & Monitoring Systems				N/A	No monitoring systems.	
<b>D70</b>	<b>Electronic Safety &amp; Security</b>						
D7010	Access Control and Intrusion Detection				N/A	No card access systems or intrusion monitors on-site.	
D7030	Electronic Surveillance				N/A	No camera surveillance on-site.	

Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 5-09-16

**PHYSICAL CONDITION ASSESSMENT**

D7050	Detection & Alarm	N/A	No fire alarm systems on-site.
-------	-------------------	-----	--------------------------------



Figure 201 Main Electrical Distribution – Main Level



Figure 202 Main Electrical Meter – Main Level



Figure 203 Electrical Meter



Figure 204 Main Electrical Disconnects – Main Level



Figure 205 Electrical Sub Panels



Figure 206 Main Electrical Disconnects – Main Level

**PHYSICAL CONDITION ASSESSMENT**



Figure 207 Main Distribution Switch Identification



Figure 208 MG&E Notification



Figure 209 Electrical Identification



Figure 210 Electrical Panel No. 1 - Maintenance Area



Figure 211 Electrical Circuits



Figure 212 Panel Ledger



Figure 213 Panel Ledger

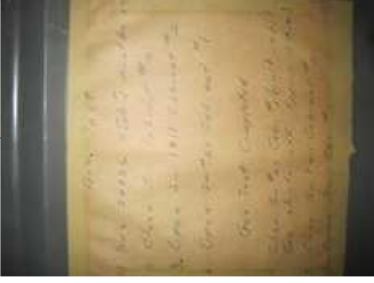


Figure 214 Panel Notes



# PHYSICAL CONDITION ASSESSMENT



Figure 215 Electrical Panel No. 2-Main Hallway



Figure 219 Electrical Circuits



Figure 217 Panel Ledger



Figure 221 Panel Info.



Figure 222 Panel Ledger



Figure 223 Panel Ledger



Figure 224 Old Panel J-Box



Figure 225 J-Box Wiring



Figure 226 J-Box Wiring



Figure 227 Exhaust Fan - Starter

# PHYSICAL CONDITION ASSESSMENT



Figure 228 East Loading Dock Figure 229 Loading Dock



Figure 230 Elect Panel – Maintenance Repair



Figure 231 Electrical Panel



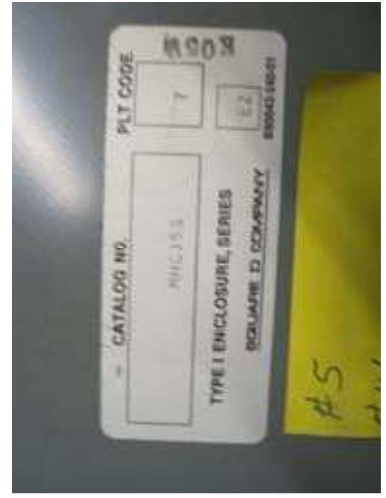
Figure 232 Sub Panel



Figure 233 Junction Box



Figure 234 Junction Box



# PHYSICAL CONDITION ASSESSMENT

Figure 235 Panelboard Identification



Figure 236 Panel Ledger



Figure 237 Panel Ledger



Figure 238 Panel Identification



Figure 239 Figure Receptacles



Figure 240 Powered Garage



Figure 242 Office – Receptacles



Figure 241 Door Office - Power



Figure 243 Electrical Panel

Figure 245 Panelboard Identification

Figure 246 Electrical Panel Info.



PHYSICAL CONDITION ASSESSMENT



Figure 247 J-Box



Figure 248 Panel Ledger



Figure 249 Panel ledger



Figure 250 Exhaust Fan Starter



Figure 251 Electrical Raceway in Garage Area



Figure 253 Electrical Conduits



Figure 252 Electrical Conduits



# PHYSICAL CONDITION ASSESSMENT

Figure 254 Volumetric Recessed Fluorescent Fixtures



Figure 257 -Kitchenette Services



Figure 260 – Lighting Mens

Figure 255 Ceiling Occupancy Sensors



Figure 258 Lighting with Occupancy Sensor



Figure 262 Lighting – Men's Restroom

Figure 256 Volumetric Recessed Fluorescent Fixtures



Figure 259 – Hallway



Figure 263 Lighting – Women's Restroom

# PHYSICAL CONDITION ASSESSMENT



Figure 264 Lighting with Occupancy Sensor



Figure 265 Lighting with Occupancy Sensor



Figure 266 Lighting with Occupancy Sensor



Figure 267 Lighting with Occupancy Sensor



Figure 268 Lighting with Local Switch



Figure 269 - Lighting with Occupancy Sensor



Figure 270 - Lighting - Storage Area



Figure 271 - Occupancy Sensor - Storage Area

# PHYSICAL CONDITION ASSESSMENT



Figure 272 – Stairwell Lighting with Occupancy Sensor



Figure 273 – Lighting in Parking Garage Areas



Figure 274 West Door Entry



Figure 275 Westside Elevation



Figure 276 South Garage Entry



Figure 277 South Garage Entry - Lighting

# PHYSICAL CONDITION ASSESSMENT

Figure 278 South Elevation



Figure 279 East Loading Dock - Lighting



Figure 280 Loading Dock - Leveler



Figure 281 East Entry



Figure 282 East Elevation

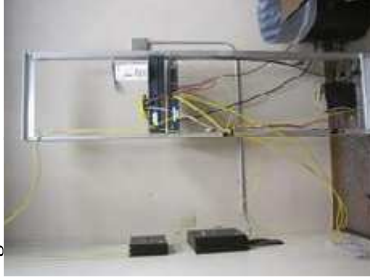


Figure 285 UPS IT Rack



Figure 286 CO2 Sensor



Figure 287 IT Server - Patch Cords

Figure 284 IT Data Rack

Figure 283 IT Equipment

PHYSICAL CONDITION ASSESSMENT



Figure 288 IT Cabling – Voice/Data



Figure 289 Patch Panel – Phones



Figure 290 Fiber Split



Figure 291 Intercom System



Figure 292 Intercom Device



Figure 293 Intercom Device- Exterior



Figure 294 Fiber Amplifier



Figure 295 Abandon IT



Figure 296 Abandon Telephone Wiring



Figure 298 Battery Clock

# PHYSICAL CONDITION ASSESSMENT



Figure 299 Office Data Cabling



Figure 300 Exit Sign



Figure 301 Exit Sign - Garage



Figure 302 Exit Sign



Figure 303 Abandon Panel



Figure 304 Exit Sign/Emergency Lighting (Battery)



Figure 305 Exit Sign/Emergency Lighting (Battery)





Institution | City of Madison  
 Building Name | Fairchild Building  
 Building Number | 120 South Fairchild Street

Date 5-09-16

## PHYSICAL CONDITION ASSESSMENT

CODE	ITEM	DESCRIPTION	QTY	UNIT	COND.	REMARKS	PHOTOS
D20	<b>Plumbing</b>						
D2010	Domestic Water Distribution	Piping distribution is operational, but at the end of its useful life.			iv	Piping distribution need to be replaced when changes to any system are made.	
D2010.20	Domestic Water Equipment	Equipment is operational, but at the end of its useful life. Existing water heater serves the Upper Level maintenance support areas. There are two existing softeners. One serves the water heater and other is serving the boiler. There is a commercial laundry water heater in the repair garage area.			iv	Equipment need to be replaced when changes to any system are made. Recommend high efficiency water heater and storage for recovery times for the peak demands.	Fig. 408-414
D2010.40	Domestic Water Piping	Equipment is operational, but at the end of its useful life.		Inch	iv	Piping distribution need to be replaced when changes to any system are made.	Fig. 426-431
D2010.60	Plumbing Fixtures	Equipment is operational, but at the end of its useful life.			iv	Fixtures need to be replaced when changes to any system are made. Recommend low flow water fixtures.	Fig. 415-423
D2020	Sanitary Drainage	Most of drainage piping is operational, but there is portion of drainage system is at the end of its useful life. Main sanitary drainage was been replaced serving the building and upper garage floor drains.			iii	Any drainage piping will need to be replaced when changes to any system are made.	Fig. 426-431 Fig. 436-463
D2010.10	Sanitary Sewerage Equipment				N/A		
D2020.30	Sanitary Sewerage Piping	Drainage piping is operational, but at the end of its useful life.		Inch	iv	Drainage piping need to be replaced when changes to any system are made.	Fig. 426-431 Fig. 436-463
D2030	Building Support Plumbing Systems				N/A		
D2030.10	Stormwater Drainage Equipment				N/A		
D2030.20	Stormwater Piping	Drainage piping is operational, but at the end of its useful life.		Inch	iv	Drainage piping need to be replaced when changes to any system are made. The storm water exits the building at lower level.	Fig. 426-431 Fig. 468-471
D2060	Process Support Plumbing Systems	Compressor Air in Repair Area on Upper Level is adequate.			i	Compressed air system and hose reels in Shop Area can be relocated.	Fig. 432-434

# PHYSICAL CONDITION ASSESSMENT



Figure 401 - Water Service Entrance – Outside



Figure 402-Water Service Meter – Inside



Figure 403 - Laundry



Figure 405 -Sanitary



Figure 406 – Hand Eye Wash



Figure 407 - Kitchette Sink Area

# PHYSICAL CONDITION ASSESSMENT



Figure 408 - Water Heater



Figure 409 -Water Heater



Figure 410-Water Heater



Figure 411 - Water Heater – Nameplate



Figure 412 - Brine Tank



Figure 413 - Water Softener



Figure 414 - Plumbing Mixing Valve



Figure 16 - Men's Restroom



Figure 417 - Men's WC



Figure 418 - Women's WC



Figure 415 -Drinking Fountain

Institution | City of Madison  
Building Name | Fairchild Building  
Building Number | 120 South Fairchild Street

Date 5-09-16

# PHYSICAL CONDITION ASSESSMENT



Figure 419 - Washing Sink Sanitary



Figure 420 - Women's Wash Sinks



Figure 422 - Washer



Figure 423 - Laundry Drier



Figure 424 - Storm Piping



Figure 425 - Storm Piping

**PHYSICAL CONDITION ASSESSMENT**



Figure 426 - Storm Piping



Figure 427 - Water Services



Figure 428 - Sanitary Piping



Figure 429 - Compressed Air Reel



Figure 430 - Compressed



Figure 431 - Sanitary Piping in Main Level



Figure 432 - Compressed Air



Figure 433 - Compressor Manufacturer



Figure 434 - Power to Compressor

PHYSICAL CONDITION ASSESSMENT



Figure 436 - Sanitary Piping



Figure 437 - Sanitary to Floor Drain Above



Figure 438 - Sanitary Piping through Storage Area



Figure 439 - Piping at Exterior



Figure 440 - Vertical Sanitary



Figure 441 - Sanitary Piping

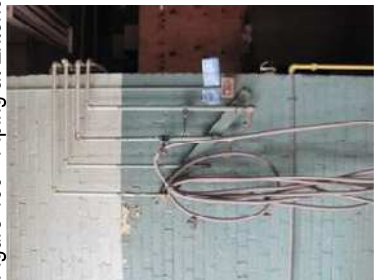


Figure 442 - Abandon Gas



Figure 443 - Vertical Sanitary



Figure 444 - Storm Piping to Below Grade

Date 5-09-16

Institution | City of Madison  
Building Name | Fairchild Building  
Building Number | 120 South Fairchild Street

# PHYSICAL CONDITION ASSESSMENT



Figure 445 - Water Services



Figure 446 - Water Services Overhead



Figure 447 - Sanitary to Floor Drains Above



Figure 448 - Sanitary Piping to Figure 449



Figure 449 - Sanitary Piping Serving Above



Figure 450 - Sanitary Piping Serving Above



Figure 451 - Cleanouts



Figure 452 - Cleanouts



Figure 453 - Storm Discharge



Figure 454 - Storm Piping

Institution | City of Madison  
Building Name | Fairchild Building  
Building Number | 120 South Fairchild Street

Date 5-09-16

# PHYSICAL CONDITION ASSESSMENT



Figure 455 - Storm Piping



Figure 456 - New Extended Water Service



Figure 457 - Trench Drains - Wash Area



Figure 458 - Water Service



Figure 459 - Horizontal Sanitary Piping



Figure 460 - Horizontal Sanitary Piping



Figure 461 - Storm Piping

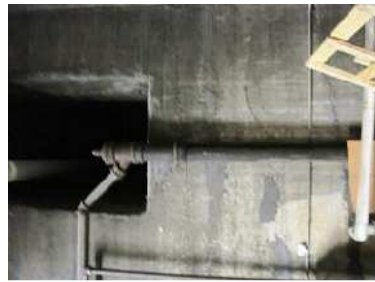


Figure 462 - Sanitary (Tunnel)



Figure 463 - Water Services to Parking Areas



# PHYSICAL CONDITION ASSESSMENT



Figure 464 - Gas Meter



Figure 465 - Gas Piping



Figure 466 - Gas Service - Exterior



Figure 467 - Softener to Boiler



Figure 468 - Roof Drains



Figure 469 - Roof Vents

Institution | City of Madison  
Building Name | Fairchild Building  
Building Number | 120 South Fairchild Street

Date 5-09-16

## PHYSICAL CONDITION ASSESSMENT



Figure 470 - Roof Area



Figure 471 - Roof Drains