

# **Forestry and Sanitation Central HQ**



**Facilities Development and Management** 

### Introduction

The Forestry and Sanitation Head Quarters is located at 5230 W. State Street. The property contains six structures: Central HQ building (23,008 SF), storage building (1,776 SF), vehicle garage (22,832 SF), salt dome (3,000 SF), soil shed (2,100 SF), and a storage garage (1,000 SF). The property site includes asphalt pavement, a fuel island, chain link fencing, and a retaining wall.

# **Component Inventory**

The information within the Facility Condition Assessment Program is derived from:

- On-site, visual, non-invasive inspections
- Review of consultant's reports
- Facilities Development and Management historic data
- FCIS building management software

The components inventoried and scheduled for capital improvement within this report meet the following criteria:

- Responsibility of Facilities Development and Management (FDaM) for replacement and repair
- Limited Useful Life (UL) expectancy
- Predictable Remaining Useful Life (RUL) expectancy
- Above a minimum capital threshold cost of \$25,000
- Required by local codes

# **Categorization of Components**

This report inventories the physical property components located at the facility. The inventoried property components are organized into one of the following categories:

- FDaM Responsibility
- O+M Responsibility
- Long Lived

• Others

FDaM Responsibility pertains to components that are funded by the FDaM capital expenditure budget. These components are the primary focus within this report and the coordinated capital budget.

*O+M Responsibility* pertains to those components that require maintenance or replacement less than the minimum capital threshold of \$25,000. These components are repaired or replaced from O+M funds.

Long Lived pertains to components that are funded through the FDaM capital budget. However, these expenditures are projected beyond the 25 year scope of the capital budget.

Others pertains to components that are repaired/replaced/maintained by an entity other than FDaM.

# **Component Inventory**

The property components at Forestry and Sanitation are categorized as follows:

#### FDaM Responsibility

**Building Envelope Components** 

- Doors, Garage
- Roofs, Asphalt Shingle
- Roofs, EPDM
- Siding, Paint Finish and Masonry Repairs

Interior Building Components

- Update, Forestry
- Update, Sanitation

Mechanical Systems Components

- AHU, Replacement
- Boiler, Heat



- Electrical, Upgrade
- Elevator, Hydraulic, Cylinder
- Elevator, Hydraulic, Pump and Controls
- Emergency Generator
- Fire Warning System
- Pipes, Sprinkler System
- Security System

Site Components

- Concrete
- Fence, Chain Link
- Light Poles and Fixtures
- Retaining Wall, Masonry
- Structure, Storage Garage
- Structure, Fuel Island
- Underground Storage Tanks

O+M Responsibility

- Paint Finishes, Touch-Up and Stairwells
- Interim Repairs, AHUs
- Routine Diagnostics
- Roof Inspections and Repairs
- Domestic Hot Water Heaters
- Pumps, Building Heat and Water
- Unit Heaters, Replacement
- Operator, Vehicle Gate
- Light Fixtures, Warehouse
- Windows and Doors

Long Lived

 Structural Frames, Central HQ, Vehicle Garage, Salt Dome, Soil Shed

#### Others

None

# **Report Information**

The written report includes a combination of information about the FDaM Responsibility components, including:

- Component Inventory
- Condition Assessment
- Photo-documentation

This information is intended to serve as a summary from the aggregation of in-house inspections, consultants reports, historic data, and the capital budget. In addition, projects funded for ADA compliance are included within the anticipated costs of capital projects.

# **Capital Budget**

The capital budget for the property is included on two spreadsheets. The first spreadsheet contains the anticipated capital projects for years 2011 through 2023. The second spreadsheet contains the anticipated capital projects for years 2024 through 2036. Information on the spreadsheets includes:

- Component name
- Quantity
- Units
- 2011 Unit Cost
- 2011 Replacement Cost
- Useful Life (UL)
- Remaining Useful Life (RUL)
- First Year Funds Requested

*Component Name* pertains to the element which is projected for capital improvement.

*Quantity* includes the measured amount of each component at the property.

*Units* pertains to the measurement used to determine quantity. The units within the report are as follows:

- LF = Linear Feet
- SF = Square Feet
- EA = Each
- LS = Lump Sum



2011 Unit Cost pertains to the estimated cost per unit measurement for capital improvement. These costs are derived from AME, Inc., in-house estimates, or historic data.

2011 Replacement Cost pertains to the estimated cost of the capital improvement project. It is derived by multiplying Quantity by 2011 Unit Cost.

*Useful Life* (UL) pertains to the time frame in years wherein a component is anticipated to remain functional provided it receive proper maintenance. UL is also referred to as Service Life.

*Remaining Useful Life* (RUL) pertains to the estimated service life remaining for any given component. It coincides with the anticipated year of the capital expenditure.

*First Year Funds Requested* pertains to the year in which the capital expenditure is anticipated.

Deferred Maintenance pertains to projects that have been identified for capital repairs but have yet to be completed. The aggregated summation of deferred maintenance projects corresponds to the FCI.

*CRV* Current Replacement Value is the insurance estimate for reconstruction of the facility in today's dollars.

*FCI* Facilities Condition Index is the relationship between the aggregated summation of deferred maintenance projects divided by the Current Replacement Value of the facility. This proportion provides an unbiased measure to analyze

the condition of the property, compare with other properties, and compare with industry standards.

# **Limitations of Inspection**

The inspection conducted by City of Milwaukee and its representatives is limited to those components that are observed and identified by mere visual observation. Inspections conducted by the City of Milwaukee do not include:

- (a) Any probing, boring, excavation, or other invasive means of property inspection,
- (b) Testing for or identification of any hazardous materials in any form,
- (c) Identification of construction, structural, design, or other defects that may violate local, state, international, or other building codes and/or regulations, or any kind,
- (d) Identification of any defects that are not readily apparent by mere visual observation including, but not limited to structural defects, leaking pipes, foundational damage, and electrical wiring hazards or defects.

Inspections for any of the above information are contracted to consultants, and conducted on an as needed basis.



#### Doors, Garage

The Forestry and Sanitation Central HQ comprises 13 overhead garage doors. Three are located at the Central HQ building, eight are located at the vehicle garage, and two are located at the storage garage.

The condition of the doors at the vehicle garage are good overall. The condition of the doors at the Central HQ building and storage garage are fair.

The useful life of metal garage doors is up to 15 years with proper maintenance. City of Milwaukee anticipates phased replacement of seven doors every four years beginning by 2015.

### **Roof, Asphalt Shingles**

The salt dome at the Forestry and Sanitation Central HQ contains an asphalt shingle roof which comprises 13,392 SF. The soil dome roof comprises 2,000 SF of asphalt shingles. The roofs are in good overall condition.

The useful life of asphalt shingle roofs is up to 20 years. The City of Milwaukee anticipates replacement of the asphalt shingle roofs by 2021.



Salt dome with asphalt shingle roof



Soil shed with asphalt shingle roof



### Roofs, EPDM

The Forestry and Sanitation Central HQ contains three separate EPDM roofs, two of which are connected to the Central HQ Building. Their ages are as follows (quantities reported by Tremco, Inc.):

Building	Last Replaced	Quantity
Central HQ Building	1999	17,227 SF
Vehicle Garage	1996	21,131 SF

The City of Milwaukee maintains an annual roof inspection and repair program. The 2010 inspections conducted by Tremco reveal that the roofs at the Central HQ Building are in fair condition with loose seams and worn flashing. Tremco concluded that the roof at the vehicle garage was in good condition.

Based on the relatively similar ages of the roofs, the City of Milwaukee plans to replace all EPDM roofs in a single event by 2018.

# Siding, Paint Finish and Masonry Repairs

The exterior of the Forestry and Sanitation Building Central HQ comprises 13,500 SF of masonry units with a paint application finish. The vehicle garage comprises approximately 5,500 SF of unpainted masonry units.

The condition of the paint finish at the Central HQ Building is fair/poor overall. The condition of the underlying masonry units is unknown due to the paint finish application. The condition of the masonry units at the vehicle garage is good, overall.

The City of Milwaukee plans for exterior paint finishes and repairs. The repairs will include repointing and partial masonry unit replacement as necessary. The City of Milwaukee anticipates to conduct this capital improvement by 2013 and every 10 years thereafter.



Paint finish deterioration at the Central HQ Building



# Update, Forestry, Offices

The Forestry offices are located in the north portion of the Central HQ Building. The interior comprises approximately 1,350 SF of floor area and the condition of the finishes is fair/poor overall.

The City of Milwaukee plans to update the interior of the Forestry Offices by 2012 and every 10 years thereafter.

# Update, Sanitation, Offices and Locker Rooms

The Sanitation offices and locker rooms are located in the south portion and second floor of the Central HQ Building. The offices comprise approximately 5,400 SF of floor area and the condition of the finishes is good overall. The two locker rooms and associated rest rooms are in good condition.

The City of Milwaukee plans to update the Sanitation Offices by 2017 and every 10 years thereafter. The Locker Rooms are planned for an update by 2027 in conjunction with subsequent office updates.

#### **Photographs**



Sanitation Offices



Typical locker room finishes



#### Air Handling Unit

The Forestry and Sanitation Central HQ contains one AHU located atop the roof of the Forestry offices and one AHU within the Sanitation Building. The AHU at the Forestry section is in fair overall condition and the AHU at the Sanitation section is in good overall condition.

The useful life of AHUs in this capacity is up to 25 years. Based on condition and the desire to replace the AHUs along with building heat boilers, the City of Milwaukee anticipates near term replacement of the Forestry AHU by 2016. Replacement of the Sanitation AHU is projected by 2028.

#### Photographs



Sanitation AHU



Forestry AHU

#### Boiler, Heat, Replacement

The Forestry AHU circulates heated air which is provided by the building heat boiler. The building heat boiler is in fair overall condition.

The useful life building heat boilers is up to 25 years. An energy audit conducted by Wilinski Associates, Inc. reveals that the building heat boiler is relatively inefficient. The City of Milwaukee anticipates replacement of the boiler by 2016.

#### Photographs



Building heat boiler



**Facilities Development and Management** 

# Electrical, Upgrade

The electrical system at the Forestry and Sanitation Central HQ was partially upgraded approximately 10 years ago. The remaining components are in good overall condition. The useful life of electrical components at industrial facilities is up to 45 years. The City of Milwaukee anticipates electrical upgrades by 2035.

# Elevator, Hydraulic

One hydraulic elevator located in the Sanitation portion of the building serves three floors. The elevator and cylinder are approximately 10 years of age and reported in good overall condition.

The useful life of elevator pump and controls is 35 years, and the useful life of an elevator cylinder is up to 45 years. The City of Milwaukee plans replacement of the pump, controls, and the cylinder by 2032.



#### **Emergency Generator**

AME Inc. has identified the need to install an emergency generator at the Forestry and Sanitation Central HQ. The cost and timing of emergency generator installation was provided by AME Inc.

The City of Milwaukee anticipates a useful life of up to 30 for the generator.

# Fire Warning System

The fire warning system at the Forestry and Sanitation Central HQ Building is comprised of a central control panel and various detection devices including:

- Annuciators
- Pull boxes
- Smoke detectors
- Heat detectors

The system is maintained annually. The useful life of fire warning systems is up to 25 years. The City of Milwaukee anticipates replacement of the fire warning system by 2021.



# Pipes, Sprinkler System

The Forestry and Sanitation Central HQ requires the installation of a fire suppression system including piping. This information is provided by AME Inc. The cost and timing of emergency generator installation is provided by AME Inc.

# **Security System**

AME Inc. has identified the need to install a security system at Forestry and Sanitation. The cost and timing of security system installation is provided by AME Inc.

The City of Milwaukee anticipates a useful life of up to 15 years for the security system.



#### Concrete

The Forestry and Sanitation Central HQ contains approximately 7,500 SF of ongrade concrete slab throughout the property. The condition of the concrete flatwork is good to fair.

Concrete flatwork has a useful life of up to 50 years. The City of Milwaukee anticipates partial replacements of up to 1,500 SF of concrete every 10 years beginning by 2018.

#### Photographs



Typical condition of concrete

### Fence, Chain Link

The perimeter of the Forestry and Sanitation Central HQ comprises a 1,070 LF chain link fence with barbed-wired. This quantity includes the vehicular gate at the south entrance. The fence and gate are in good overall condition.

The useful life of chain link fences is up 25 years. The City of Milwaukee anticipates replacement of this fence by 2026.



Chain link fence with barbed wire - note retaining wall



<b>Light Poles and Fixtures</b> The Forestry and Sanitation Central HQ contains six light poles and fixtures. The light poles and fixtures are in fair overall condition. The useful life of light poles and fixtures is up to 25 years.	<b>Retaining Wall, Masonry</b> The north perimeter of the property contains a 650 SF masonry retaining wall. The retaining wall is in good overall condition.
Based on condition, the City of Milwaukee anticipates replacement of the light poles	The useful life of masonry retaining walls is up to 35 years. The City of Milwaukee anticipates replacement of this retaining wall by 2031.



#### Structure, Storage Garage

The Forestry and Sanitation Central HQ contains a 1,000 SF metal storage garage located at the east perimeter of the property. The garage is in fair overall condition.

The useful life of metal storage garage structures is up to 30 years. The City of Milwaukee plans replacement of the garage by 2022.

#### Photographs



Metal storage garage

# Structure, Fuel Island

The Forestry and Sanitation Central HQ contains one fuel island structure. The condition of this structure is fair overall. Exterior, open air structures have a useful life of up to 40 years. Based on its current condition, the City of Milwaukee anticipates replacement of this fuel island by 2018.

#### **Photographs**



**Fuel Island** 



# **Underground Storage Tanks**

The Forestry and Sanitation Central HQ comprises two underground storage tanks. The condition of the fuel storage tank is good overall at an age of 12 years.

The useful life of underground storage tanks is up to 40 years. The City of Milwaukee plans replacement of the storage tank by 2036.



Forestry and Sanitation HQ	<b>a</b>		2011 Unit	2011			Elizab Maran													
52nd and State Street	Quantity	Units	Cost	Replacement			First Year													
				Cost	UL	RUL	Funds Requested	Deferred Maintenance	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Building Envelope Components	_	- •	<i>.</i>	<i></i>	45		2015	60					450 574							ACE 000
Doors, Garage, Phased (including vehicle garages)	/	EA	\$6,800.00	\$47,600	15	4	2015	\$0 ¢0					\$53,574			A				\$65,890
Roof, Asphalt Shingle, Salt Dome	13,392	SF	\$4.50	\$60,264	20	/	2018	\$0 ¢0								\$/4,11/				
Roof, Asphalt Shingle, Soil Storage	2,100	SF	\$7.50	\$15,750	20	/	2018	\$0 ¢0								\$19,371		¢240.440		
Root, EPDIM, Garage (including stone ballast)	21,131	SF	\$9.00	\$190,179	20	9	2020	\$U										\$248,140		
Roof, EPDM, HQ Building	15,065	SF	\$7.50	\$112,988	20	9	2020	\$0										\$147,423		
Roof, EPDM, HQ Building	2,162	SF	\$7.50	\$16,215	20	9	2020	\$0 \$05,000	405 000									\$21,157		
Siding, Paint Finish and Masonry Repairs, HQ	19,000	SF	\$5.00	\$95,000	10	0	2011	\$95,000	\$95,000										\$127,672	
Interior Building Components																				
Update, Forestry, Offices	1,350	LS	\$30.00	\$40,500	10	1	2012	\$0		\$41,715										\$56,061
Update, Sanitation, Offices	5,400	SF	\$30.00	\$162,000	10	6	2017	\$0							\$193,436					
Update, Sanitation, Locker Rooms	1	LS	\$90,000.00	\$90,000	25	16	2027	\$0												
Mechanical Systems Components																				
Air Handling Unit, Replacement, Phased	1	EA	\$58,000.00	\$58,000	25	0	2011	\$58,000	\$58,000											
Boiler, Heat, Replacement	1	EA	\$100,000.00	\$100,000	25	0	2011	\$100,000	\$100,000											
Electrical, Upgrade	1	LS	\$190,000.00	\$190,000	45	24	2035	\$0												
Elevator, Hydraulic, Cylinder	1	LS	\$45,000.00	\$45,000	45	21	2032	\$0												
Elevator, Hydraulic, Pump and Controls	1	LS	\$52,000.00	\$52,000	35	21	2032	\$0												
Emergency Generator	1	EA	\$135,000.00	\$135,000	30	0	2011	\$135,000	\$135,000											
Fire Warning System	1	LS	\$86,000.00	\$86,000	25	10	2021	\$0											\$115,577	
Pipes, Sprinkler System	1	LS	\$250,000.00	\$250,000	50+	0	2011	\$250,000	\$250,000											
Security System	1	LS	\$92,000.00	\$92,000	15	0	2011	\$92,000	\$92,000											
Site Components																				
Concrete, Partial Replacements	1,500	SY	\$11.00	\$16,500	50	7	2018	\$0								\$20,293				
Fence, Chain Link (including gate)	1,070	LF	\$27.00	\$28,890	25	15	2026	\$0												
Light Poles and Fixtures	6	EA	\$4,300.00	\$25,800	25	7	2018	\$0								\$31,731				
Retaining Wall, Masonry	650	SF	\$35.00	\$22,750	35	20	2031	\$0												
Structure, Storage Garage	1	EA	\$18,000.00	\$18,000	30	11	2022	\$0												\$24,916
Structure, Fuel Island	1	LS	\$65,000.00	\$65,000	40	7	2018	\$0								\$79,942				
Underground Storage Tanks	2	EA	\$4,300.00	\$68,000	40	25	2036	\$0												
						Total	Annual Cost		\$730,000	\$41,715	\$0	\$0	\$53,574	\$0	\$193,436	\$225,453	\$0	\$416,720	\$243,249	\$146,867
							CRV		\$4.300.000	\$4.416.100	\$4.535.335	\$4.657.789	\$4,783,549	\$4.912.705	\$5.045.348	\$5.181.572	\$5.321.475	\$5,465,155	\$5.612.714	\$5.764.257
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Notes																				

1) The annual building materials inflation rate estimate is		3.00%
2) FY is Fiscal Year. FY is the calendar year.		
3) UL is Useful Life and RUL is Remaining Useful Life		
4) Current Replacment Value (CRV) growth rate is	2.70%	

Forestry and Sanitation HQ 52nd and State Street	Quantity	Units	2011 Unit Cost	2011 Replacement Cost	t	Fi	rst Year Funds														
					UL F	RUL Re	quested	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Building Envelope Components																					
Doors, Garage, Phased (including vehicle garages)	7	EA	\$6,800.00	\$47,600	15	4	2015							\$81,036							\$99,664
Roof, Asphalt Shingle, Salt Dome	13,392	SF	\$4.50	\$60,264	20	7	2018														
Roof, Asphalt Shingle, Soil Storage	2,100	SF	\$7.50	\$15,750	20	7	2018														
Roof, EPDM, Garage (including stone ballast)	21,131	SF	\$9.00	\$190,179	20	9	2020														
Roof, EPDM, HQ Building	15,065	SF	\$7.50	\$112,988	20	9	2020														
Roof, EPDM, HQ Building	2,162	SF	\$7.50	\$16,215	20	9	2020														
Siding, Paint Finish and Masonry Repairs, HQ	19,000	SF	\$5.00	\$95,000	10	0	2011									\$171,581					
Interior Building Components																					
Update, Forestry, Offices	1,350	LS	\$30.00	\$40,500	10	1	2012										\$75,342				
Update, Sanitation, Offices	5,400	SF	\$30.00	\$162,000	10	6	2017					\$259,962									
Update, Sanitation, Locker Rooms	1	LS	\$90,000.00	\$90,000	25	16	2027					\$144,424									
Mechanical Systems Components																					
Air Handling Unit, Replacement, Phased	1	EA	\$58,000.00	\$58,000	25	0	2011						\$95,865								
Boiler, Heat, Replacement	1	EA	\$100,000.00	\$100,000	25	0	2011														
Electrical, Upgrade	1	LS	\$190,000.00	\$190,000	45	24	2035													\$386,231	
Elevator, Hydraulic, Cylinder	1	LS	\$45,000.00	\$45,000	45	21	2032										\$83,713				
Elevator, Hydraulic, Pump and Controls	1	LS	\$52,000.00	\$52,000	35	21	2032										\$96,735				
Emergency Generator	1	EA	\$135,000.00	\$135,000	30	0	2011										\$251,140				
Fire Warning System	1	LS	\$86,000.00	\$86,000	25	10	2021														
Pipes, Sprinkler System	1	LS	\$250,000.00	\$250,000	50+	0	2011														
Security System	1	LS	\$92,000.00	\$92,000	15	0	2011	\$131,170												\$187,017	
Site Components																					
Concrete, Partial Replacements	1,500	SY	\$11.00	\$16,500	50	7	2018						\$27,272								
Fence, Chain Link (including gate)	1,070	LF	\$27.00	\$28,890	25	15	2026				\$45,010										
Light Poles and Fixtures	6	EA	\$4,300.00	\$25,800	25	7	2018														
Retaining Wall, Masonry	650	SF	\$35.00	\$22,750	35	20	2031									\$41,089					
Structure, Storage Garage	1	EA	\$18,000.00	\$18,000	30	11	2022														
Structure, Fuel Island	1	LS	\$65,000.00	\$65,000	40	7	2018														
Underground Storage Tanks	2	EA	\$4,300.00	\$68,000	40	25	2036														\$142,377
						Total An	nual Cost	\$131,170	\$0	\$0	\$45,010	\$404,386	\$123,137	\$81,036	\$0	\$212,670	\$506,930	\$0	\$0	\$573,248	\$242,041
							CRV FCI	\$5,919,892	\$6,079,729	\$6,243,882	\$6,412,467	\$6,585,603	\$6,763,414	\$6,946,027	\$7,133,569	\$7,326,176	\$7,523,982	\$7,727,130	\$7,935,762	\$8,150,028	\$8,370,079
Notes																					
1) The annual building materials inflation rate estir	mate is		3.00%																		

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4) Current Replacment Value (CRV) growth rate is 2.70%								





# **Material Recovery Facility (MRF)**



**Facilities Development and Management** 

# Introduction

The Material Recovery Facility (MRF) is located at 1313 W. Mount Vernon Avenue. The building was constructed in 1976 and contains approximately 67,000 SF of floor area. The property site includes asphalt pavement, two brick buildings, two truck scales, a fuel island, and a sea wall adjacent to the Menomonee River.

# **Component Inventory**

The information within the Facility Condition Assessment Program is derived from:

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- Review of consultant's reports
- Facilities Development and Management historic data
- FCIS building management software

The components inventoried and scheduled for capital improvement within this report meet the following criteria:

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- Above a minimum capital threshold cost of \$25,000
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# **Categorization of Components**

This report inventories the physical property located at the facility. The inventoried property components are organized into one of the following categories:

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- O+M Responsibility
- Long Lived
- Others

FDaM Responsibility pertains to components that are funded by the FDaM capital expenditure budget. These components are the primary focus within this report and the coordinated capital budget.

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Long Lived pertains to components that are funded through the FDaM capital budget. However, these expenditures are projected beyond the 25 year scope of the capital budget.

Others pertains to components that are repaired/replaced/maintained by an entity other than FDaM.

# **Component Inventory**

The property components at MRF are categorized as follows:

FDaM Responsibility

**Building Envelope Components** 

- Doors, Garage
- Gutters and Downspouts
- Roof, Metal
- Siding, Metal/Fiberglass

Interior Building Components

- Elevator Lift
- Light Fixtures, Recycling Warehouse
- Paint Application, Structural Steel
- Update, Interior

**Mechanical Systems Components** 

- AHU, Replacement
- AHU, Housing Installation
- Electrical, Upgrade



- Fire Warning System
- Pipes, Sprinkler System

Site Components

- Asphalt Pavement, Seal Coat/ Repair
- Asphalt Pavement, Overlay
- Concrete Flatwork
- Fence, Chain Link
- Seawall
- Storage Tank
- Structure, Fuel Island
- Structure, Scales
- Trench Drain, Constructability
  Study
- Trench Drain, Replacement

O+M Responsibility

- Exterior Façade Maintenance
- Paint Finishes, Touch-Up
- Doors, Pedestrian
- Interim Repairs, AHUs and Unit Heaters
- Routine Diagnostics
- Windows, Replacement
- Concrete, Interim Replacements
- Interior Renovations, Education Center, Lunch House and Scale House

Long Lived

• Structural Frames, MRF, Drivers Lounge, and Scale House

Others

 Recycling Equipment and Machinery

# **Report Information**

The written report includes a combination of information about the FDaM Responsibility components, including:

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- Condition Assessment
- Photo-documentation

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**Facilities Development and Management** 



cost per unit measurement for capital improvement. These costs are derived from AME, Inc., in-house estimates, or historic data.

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*Deferred Maintenance* pertains to projects that have been identified for capital repairs but have yet to be completed. The aggregated summation of deferred maintenance projects corresponds to the FCI.

*CRV* Current Replacement Value is the insurance estimate for reconstruction of the facility in today's dollars.

*FCI* Facilities Condition Index is the relationship between the aggregated summation of deferred maintenance projects divided by the Current Replacement Value of the facility. This proportion provides an unbiased measure to analyze the condition of the property, compare with

other properties, and compare with industry standards.

# Limitations of Inspection

The inspection conducted by City of Milwaukee and its representatives is limited to those components that are observed and identified by mere visual observation. Inspections conducted by the City of Milwaukee do not include:

- (a) Any probing, boring, excavation, or other invasive means of property inspection,
- (b) Testing for or identification of any hazardous materials in any form,
- (c) Identification of construction, structural, design, or other defects that may violate local, state, international, or other building codes and/or regulations, or any kind,
- (d) Identification of any defects that are not readily apparent by mere visual observation including, but not limited to structural defects, leaking pipes, foundational damage, and electrical wiring hazards or defects.

Inspections for any of the above information are contracted to consultants, and conducted on an as needed basis.



#### Doors, Garage

The MRF comprises 28 overhead garage doors which are quantified and categorized in three sizes: small - 4, medium - 15, and large - 9. The garage doors are constructed of metal.

Based on the use of the facility, a majority of the garage door are not used. Therefore, the operational condition is a low priority. However, their physical condition remains a significant factor. A large door at the west elevation exhibits collapsed panels. This door should be repaired using O+M funds.

The useful life of metal garage doors at the MRF is up to 20 years. The City of Milwaukee anticipates phased replacement of seven doors every four years beginning by 2014.

#### Photographs



Garage door at west elevation is collapsed

#### **Gutters and Downspouts**

The MRF building contains approximately 1,200 LF of gutters and 650 LF of downspouts. Nearly one-half of the gutters and down spouts were replaced in 2009 in conjunction with the west roof replacement.

The useful life of gutters and downspouts is up to 20 years. The City of Milwaukee anticipates replacement of the remaining gutters and downspouts by 2012 in conjunction with roof replacement at the east portioned the building.

Subsequent phased replacements of the gutters and downspouts are likely every 19 years thereafter.



East elevation gutters contain organic growth



#### Roof, Metal

The corrugated metal roof at the MRF comprises 73,000 SF. Evidence of leaks and loose insulation were observed from the facility interior.

Approximately 39,500 SF of roof is located at the west portion of MRF. This section of roof was replaced in 2009 and is reported in good overall condition.

Approximately 34,200 SF of roof is located at the east portion of MRF and is reported in poor overall condition with occurrences of leaks, damaged roof sections, and improper drainage. This roof is scheduled for replacement in 2012

Corrugated metal roofs have a useful life of up to 20 years. The City of Milwaukee anticipates replacement of the metal roofs every 19 years.

#### Photographs



Torn insulation and rusted roof decking

# Siding, Metal/Fiberglass

The corrugated metal and fiberglass siding at MRF comprises approximately 40,000 SF of surface area. A majority of the siding is metal.

The metal siding appears in fair overall condition. The inspection noted multiple locations of damaged and/bent metal siding. The fiberglass siding was in good overall condition.

The useful life of metal and fiberglass siding is up to 35 years. Based on localized damage and varied conditions of the siding, the City of Milwaukee anticipates phased replacement of one-half of the siding by 2020 and the remaining half by 2028. Partial replacement of siding is funded by O+M.



Damaged siding at south elevation



#### Elevator, Lift

MRF contains one single passenger twostory elevator located within the east bay of the facility warehouse. The elevator connects the lower offices floor with the second story of the facility.

Single passenger elevators have a useful life of up to 25 years. The City of Milwaukee anticipates replacement of the elevator by 2021.

#### **Photographs**



Single passenger elevator

#### **Light Fixtures**

The 140 pendulum light fixtures within the warehouse portion of the MRF are in fair overall condition. Hanging pendulum light fixtures have a useful life of up to 35 years. The City of Milwaukee anticipates replacement of the light fixtures by 2017.



Typical pendulum light fixtures attached to roof truss



# Paint Application, Structural Steel

The MRF is an indoor enclosed building. However, a portion of the garage doors remain open for facility operations. As a result, precipitation, weatherization, etc., infiltrates to the interior of the building. In addition, a history of roof leaks allowed precipitation into the interior of the facility. Over time, the structural frame and existing paint application experienced deterioration.

The useful life for structural steel paint application in semi-exposed facilities is up to 40 years. At the recommendation of AME, Inc., the City of Milwaukee plans a paint finish application to the structural steel by 2013.

#### **Photographs**



Evidence of deterioration at truss and roof stringers

#### **Update**, Interior

The interior offices and rest rooms at the MRF comprise approximately 2,900 SF of interior office space. The interior finishes comprise:

- Floor coverings carpet, tile, vinyl
- Wall coverings paint and tile
- Ceiling finishes acoustic tile and paint

The rest rooms include:

- Toilets and partitions
- Floor and wall tile
- Acoustic tile ceiling
- Sinks/faucets

The condition of these components is fair overall. The City of Milwaukee plans the next interior update by 2016 and every 12 years thereafter.



Interior finishes



### Air Handling Unit, Replacement

The MRF contains one AHU located atop the roof of the offices. The AHU is open to the warehouse, but enclosed by the MRF building envelope. Because the AHU is open to the warehouse, the equipment is subject to indoor debris. The inspection revealed that the unit was covered by approximately 1/4" of particulate matter/dust.

The AHU is in fair operational condition. The City of Milwaukee anticipates replacement of the AHU by 2013 and again by 2036. The near term AHU replacement is recommended to be done in conjunction with installation of AHU housing. AME, Inc. has recommended installation of the AHU housing.

#### Photographs



AHU - note accumulation of particulate matter

# Air Handling Unit, Housing Installation

The AHU located atop the offices at the MRF is exposed to indoor pollution. At the time of our inspection, the AHU exhibited approximately 1/4" accumulation of particulate matter. Debris affects the functional quality of the HVAC equipment and consequently the quality of the indoor environment.

Based on a recommendation by AME, Inc., the City of Milwaukee plans to install a housing for the AHU by 2013. This project should be coordinated with replacement of the AHU.



# Electrical, Upgrade

The electrical system at the MRF is original to the development of the facility, or at an age of 34 years. The useful life of electrical components at industrial facilities is up to 50 years. Based on the age, the City of Milwaukee projects electrical upgrades by 2021.

# **Fire Warning System**

The fire warning system at the MRF is comprised of a central control panel and various detection devices including:

- Annuciators
- Pull boxes
- Smoke detectors
- Heat detectors

The system is monitored and maintained annually. The useful life of fire warning systems is up to 25 years. The City of Milwaukee anticipates replacement of the fire warning system by 2026.



### Pipes, Sprinkler System

The MRF contains a dry pipe fire suppression system. The MRF facility is an indoor enclosed building. However, a portion of the garage doors remain open for facility operations. As a result, precipitation, the effects of weatherization, etc., infiltrates to the interior of the building. In addition, a history of roof leaks allowed additional precipitation into the interior of the facility warehouses. Over time, the sprinkler system piping has become deteriorated.

Localized sections of pipe failures are documented by the City of Milwaukee. Repairs are funded with O+M funds.

The useful life of semi-exposed sprinkler system pipes is up to 35 years. Based on the recommendation by AME, Inc., the City of Milwaukee plans replacement of these pipes by 2015.

#### Asphalt Pavement, Seal Coat/Repair

A seal coat application is a preventive maintenance surface treatment placed atop asphalt pavement to combat the natural deterioration and provide resistance to weatherization. This material has the ability to fill in small cracks and protect the surface from oxidation. Larger cracks require special attention prior to seal coat application. Localized areas of damaged pavement require patches, or complete removal of the pavement.

Seal coat and repairs should be conducted every 3-5 years. The City of Milwaukee anticipates phased seal coat application of approximately 75% of the asphalt pavement in conjunction with phased asphalt pavement overlayment beginning by 2014 and every four years thereafter.



Large unsealed cracks at MRF asphalt pavement



#### **Asphalt Pavement, Overlay**

The MRF contains approximately 36,000 SY of asphalt pavement. The pavement is in fair condition overall. The inspection revealed locations of large unsealed cracks, localized failures, and settlement.

The useful life of asphalt pavement is up to 20 years when subjected to periodic maintenance including crack repair, patching, and seal coating.

Based on the varied condition of the pavement at the MRF, the City of Milwaukee projects a phased overlayment of the asphalt pavement. The City of Milwaukee anticipates phased asphalt pavement overlayment of approximately 25% in conjunction with phased seal coat application beginning by 2014 and every four years thereafter.

#### Photographs



Localized failures and settled asphalt pavement

# **Concrete Flatwork**

The MRF contains concrete flatwork including sidewalks, curbs, and parking pads. The condition of the concrete flatwork is varied throughout the property. The sidewalk to the southwest of the lunch building exhibits deteriorated concrete and curbs. The sidewalk at the north perimeter of the west parking lot exhibits cracked and settled concrete.

The useful life of concrete flatwork is up to 50 years. Based on the condition of the concrete flatwork, the City of Milwaukee anticipates partial replacements by 2012 and again by 2019.



Deteriorated concrete and curbs



Large unsealed cracks at MRF asphalt pavement



#### Fence, Chain Link

The perimeter of the MRF comprises a 2,650 LF chain link fence with barbed-wired. This quantity includes the two vehicular gates at the east and west entrances. The fence and gates are in fair overall condition.

The useful life of chain link fences is up 25 years. The City of Milwaukee anticipates replacement of this fence by 2017.

#### Photographs



Chain link fence with barbed wire



Vehicle entry gate

#### Seawall

The MRF property contains 950 LF of metal seawall with concrete curbing located at the north bank of the Menomonee River. AME, Inc. identified this component as one that requires replacement.

The useful life of seawalls may reach or exceed 50 years depending upon its material composition and environment.

Based on the AME, Inc. report, the City of Milwaukee plans to replace the wall by 2019. The City of Milwaukee will continue to monitor the condition of the seawall and adjust its time of replacement accordingly.



#### **Storage Tank**

One above ground storage tank is located at the fuel island of the MRF facility. The condition of the fuel storage tank is good at an age of 16 years.

The useful life of above ground storage tanks is up to 40 years. The City of Milwaukee plans replacement of the storage tank by 2027, in conjunction with replacement of the fuel island.

### **Photographs**



Fuel island and storage tank

# Structure, Fuel Island

The MRF contains one fuel island structure. The condition of this structures is fair overall. An exterior, open air structure has a useful life of up to 40 years. Based on its current condition, the City of Milwaukee anticipates replacement of this fuel island by 2027 in conjunction with replacement of the storage tank.



### Structure, Scales

The MRF contains two truck scales located at the southwest of the property. The scales are non-functional at this time with one scale structurally deficient.

The City of Milwaukee began a capital improvement program in 2010 to remediate the scales. The cost of remediation is \$130,000.

The useful life of truck scales is up to 15 years. The City of Milwaukee should anticipate the next scale replacement by 2025.

#### Photographs



Scales and scale house



Damaged scale

# Trench Drain, Constructability Study

The south perimeter of the property contains trench drain parallel to the seawall. AME, Inc. inspectors identified the need to replace the trench drain.

Prior to replacement of the trench drain, the City of Milwaukee must receive a constructability study from consultants. The study should include, but not be limited to: environmental impact, water shed area, and cost analysis.

The City of Milwaukee anticipates commission of this study by 2012.



**Facilities Development and Management** 

# **Trench Drain, Replacement**

The trench drain at the south perimeter of the property comprises approximately 950 LF. AME, Inc. inspectors have indentified this component as one that requires replacement in the near term.

The City of Milwaukee plans replacement of this drain by 2014, after a constructability study is conducted.



Material Recovery Facility (MRF)	Quantity	Units	2011 Unit Cost	2011 Replacement Cost	ULR	First Year Funds UL Requested	Deferred Maintenance	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Building Envelope Components																				
Doors, Garage, Phased	7	EA	\$14,500.00	\$101,500	20	3 2014	\$0				\$110,912				\$124,832				\$140,500	
Gutters and Downspouts, Phased	925	LF	\$9.50	\$8,788	20	0 2011	\$8,788	\$8,788												
Roof, Metal, East	34,200	SF	\$8.00	\$273,600	20	0 2011	\$273,600	\$273,600												
Roof, Metal, West	39,500	SF	\$8.00	\$316,000	20 1	.8 2029	\$0													
Siding, Metal/Fiberglass, Replacement, Phased	20,000	SF	\$6.50	\$130,000	35	9 2020	\$0										\$169,621			
Interior Building Components																				
Elevator Lift, Replacement	1	EA	\$51,000.00	\$51,000	25 1	.0 2021	\$0											\$68,540		
Light Fixtures, Recycling Warehouses	140	EA	\$350.00	\$49,000	35	6 2017	\$0							\$58,509						
Paint Application, Structural Steel	1	LS	\$400,000.00	\$400,000	40	0 2011	\$400,000	\$400,000												
Update, Interior	1	LS	\$35,000.00	\$35,000	12	5 2016	\$0						\$40,575							
Mechanical Systems Components																				
AHU, Replacement	1	EA	\$35,000.00	\$35,000	25	2 2013	\$0			\$37,132										
AHU, Housing Installation	1	LS	\$40,000.00	\$40,000	N/A	2 2013	\$0			\$42,436										
Electrical, Upgrade	1	LS	\$120,000.00	\$120,000	50 1	.0 2021	\$0											\$161,270		
Fire Warning System	1	LS	\$50,000.00	\$50,000	25 1	.5 2026	\$0													
Pipes, Sprinkler System, Replacement	73,700	SF	\$5.00	\$368,500	35	0 2011	\$368,500	\$368,500												
Site Components																				
Asphalt Pavement, Seal Coat/Repairs	27,000	SY	\$1.00	\$27,000	3-5	0 2011	\$27,000	\$27,000				\$30,389				\$34,203				\$38,496
Asphalt Pavement, Overlay, Phased	9,000	SY	\$14.00	\$126,000	20	0 2011	\$126,000	\$126,000				\$141,814				\$159,613				\$179,646
Concrete Flatwork, Replacements	1	LS	\$45,000.00	\$45,000	50	0 2011	\$45,000	\$45,000								\$57,005				
Fence, Chain Link (including gates)	1	LS	\$171,000.00	\$171,000	25	6 2017	\$0							\$204,183						
Seawall	950	LF	\$1,600.00	\$1,520,000	50+	8 2019	\$0									\$1,925,491				
Storage Tank, Replacement	1	EA	\$78,000.00	\$78,000	40 1	.6 2027	\$0													
Structure, Fuel Island	1	LS	\$95,000.00	\$95,000	40 1	.6 2027	\$0													
Structure, Scales	1	LS	\$130,000.00	\$130,000	15 1	4 2025	\$0													
Trench Drain, Constructability Study	1	LS	\$50,000.00	\$50,000	N/A	0 2011	\$50,000	\$50,000												
Trench Drain, Replacement	1	LS	\$230,000.00	\$230,000	35	0 2011	\$230,000	\$230,000												
					т	otal Annual Cos	:	\$1,528,888	\$0	\$79,568	\$110,912	\$172,203	\$40,575	\$262,692	\$124,832	\$2,176,311	\$169,621	\$229,810	\$140,500	\$218,141
						CR	v	\$3,700,000	\$3,799,900	\$3,902,497	\$4,007,865	\$4,116,077	\$4,227,211	\$4,341,346	\$4,458,562	\$4,578,943	\$4,702,575	\$4,829,544	\$4,959,942	\$5,093,860
						F	-	0.41	+0,,00,000	<i>+0,002,107</i>	+ .,,	+ .,220,077	÷ ·,== / ,== ±	÷ ,,; .2,; .0	+ .,	+ .,	÷ .,. o=,o , o	÷ .,020,011	÷ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+ 5,555,550
Notes							-													
1) The annual building materials inflation rate e	estimate is		3.00%																	

Buildings Development and Management

City of Milwaukee

1) The annual building materials inflation rate estimate is 2) FY is Fiscal Year. FY is the calendar year. 3) UL is Useful Life and RUL is Remaining Useful Life 4) Current Replacment Value (CRV) growth rate is 2.70%
| Material Recovery Facility<br>(MRF)             | Quantity    | Units | 2011 Unit<br>Cost | 2011<br>Replacement |       | First Year<br>Funds<br>Requested | 2024        | 2025        | 2026        | 2027        | 2028        | 2029        | 2030        | 2031        | 2032        | 2033        | 2034        | 2035        | 2036        |
|---|-------------|-------|-------------------|---------------------|-------|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|   |             |       |                   | COST                |       | Requested                        | LUL4        | LULJ        | 2020        | 2027        | 2020        | LULJ        | 2030        | 2001        | LUJL        | 2033        | 2004        | 2033        |             |
| Building Envelope Components                    | _           |       |                   |                     |       |                                  |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Doors, Garage, Phased                           | 7           | EA    | \$14,500.00       | \$101,500           | 20 3  | 2014                             |             |             | \$158,134   |             |             |             | \$177,981   |             |             |             | \$200,319   |             |             |
| Gutters and Downspouts, Phased                  | 925         | LF    | \$9.50            | \$8,788             | 20 0  | 2011                             |             |             |             |             |             | \$14,960    |             |             |             |             |             |             |             |
| Roof, Metal, East                               | 34,200      | SF    | \$8.00            | \$273,600           | 20 0  | 2011                             |             |             |             |             |             | 4-0-000     |             | \$494,152   |             |             |             |             |             |
| Roof, Metal, West                               | 39,500      | SF    | \$8.00            | \$316,000           | 20 18 | 2029                             |             |             |             |             | 4944.070    | \$537,969   |             | \$570,731   |             |             |             |             |             |
| Siding, Metal/Fiberglass, Replacement, Phased   | 20,000      | SF    | \$6.50            | \$130,000           | 35 9  | 2020                             |             |             |             |             | \$214,870   |             |             |             |             |             |             |             |             |
| Interior Building Components                    |             |       |                   |                     |       |                                  |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Elevator Lift, Replacement                      | 1           | EA    | \$51,000.00       | \$51,000            | 25 10 | 2021                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Light Fixtures, Recycling Warehouses            | 140         | EA    | \$350.00          | \$49,000            | 35 6  | 2017                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Paint Application, Structural Steel             | 1           | LS    | \$400,000.00      | \$400,000           | 40 0  | 2011                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Update, Interior                                | 1           | LS    | \$35,000.00       | \$35,000            | 12 5  | 2016                             |             |             |             |             | \$57,850    |             |             |             |             |             |             |             |             |
| Mechanical Systems Components                   |             |       |                   |                     |       |                                  |             |             |             |             |             |             |             |             |             |             |             |             |             |
| AHU, Replacement                                | 1           | EA    | \$35,000.00       | \$35,000            | 25 2  | 2013                             |             |             |             |             |             |             |             |             |             |             |             |             | \$73,282    |
| AHU, Housing Installation                       | 1           | LS    | \$40,000.00       | \$40,000            | N/A 2 | 2013                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Electrical, Upgrade                             | 1           | LS    | \$120,000.00      | \$120,000           | 50 10 | 2021                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Fire Warning System                             | 1           | LS    | \$50,000.00       | \$50,000            | 25 15 | 2026                             |             |             | \$77,898    |             |             |             |             |             |             |             |             |             |             |
| Pipes, Sprinkler System, Replacement            | 73,700      | SF    | \$5.00            | \$368,500           | 35 0  | 2011                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Site Components                                 |             |       |                   |                     |       |                                  |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Asphalt Pavement, Seal Coat/Repairs             | 27,000      | SY    | \$1.00            | \$27,000            | 3-5 0 | 2011                             |             |             |             | \$43,327    |             |             |             | \$48,765    |             |             |             | \$54,885    |             |
| Asphalt Pavement, Overlay, Phased               | 9,000       | SY    | \$14.00           | \$126,000           | 20 0  | 2011                             |             |             |             | \$202,193   |             |             |             | \$227,570   |             |             |             | \$256,132   |             |
| Concrete Flatwork, Replacements                 | 1           | LS    | \$45,000.00       | \$45,000            | 50 0  | 2011                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Fence, Chain Link (including gates)             | 1           | LS    | \$171,000.00      | \$171,000           | 25 6  | 2017                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Seawall   | 950         | LF    | \$1,600.00        | \$1,520,000         | 50+ 8 | 2019                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Storage Tank, Replacement                       | 1           | EA    | \$78,000.00       | \$78,000            | 40 16 | 2027                             |             |             |             | \$125,167   |             |             |             |             |             |             |             |             |             |
| Structure, Fuel Island                          | 1           | LS    | \$95,000.00       | \$95,000            | 40 16 | 2027                             |             |             |             | \$152,447   |             |             |             |             |             |             |             |             |             |
| Structure, Scales                               | 1           | LS    | \$130,000.00      | \$130,000           | 15 14 | 2025                             |             | \$196,637   |             |             |             |             |             |             |             |             |             |             |             |
| Trench Drain, Constructability Study            | 1           | LS    | \$50,000.00       | \$50,000            | N/A 0 | 2011                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Trench Drain, Replacement                       | 1           | LS    | \$230,000.00      | \$230,000           | 35 0  | 2011                             |             |             |             |             |             |             |             |             |             |             |             |             |             |
|   |             |       |                   |                     | Tot   | al Annual Cost                   | \$0         | \$196,637   | \$236,032   | \$523,134   | \$272,720   | \$552,929   | \$177,981   | \$1,341,218 | \$0         | \$0         | \$200,319   | \$311,017   | \$73,282    |
|   |             |       |                   |                     |       | CRV<br>FCI                       | \$5,231,395 | \$5,372,642 | \$5,517,704 | \$5,666,682 | \$5,819,682 | \$5,976,814 | \$6,138,188 | \$6,303,919 | \$6,474,124 | \$6,648,926 | \$6,828,447 | \$7,012,815 | \$7,202,161 |
| Notes   |             |       |                   |                     |       |                                  |             |             |             |             |             |             |             |             |             |             |             |             |             |
| 1) The annual building materials inflation rate | estimate is |       | 3.00%             |                     |       |                                  |             |             |             |             |             |             |             |             |             |             |             |             |             |
| 2) FY is Fiscal Year. FY is the calendar year.  |             |       |                   |                     |       |                                  |             |             |             |             |             |             |             |             |             |             |             |             |             |

#### City of Milwaukee Buildings Development and Management

3) UL is Useful Life and RUL is Remaining Useful Life 4) Current Replacment Value (CRV) growth rate is

2.70%



# **Facilities Condition Assessment Program**



# **Northwest Garage**



**Facilities Development and Management** 

#### Introduction

The Northwest Garage is located at 3025 W. Ruby Avenue. The HQ building was constructed in 1948 and contains approximately 71,456 SF of floor area. The property site includes asphalt pavement, concrete flatwork, a 10,300 SF salt dome constructed in 2009, and three fuel islands.

### **Component Inventory**

The information within the Facility Condition Assessment Program is derived from:

- On-site, visual, non-invasive inspections
- Review of consultant's reports
- Facilities Development and Management historic data
- FCIS building management software

The components inventoried and scheduled for capital improvement within this report meet the following criteria:

- Responsibility of Facilities Development and Management (FDaM) for replacement and repair
- Limited Useful Life (UL) expectancy
- Predictable Remaining Useful Life (RUL) expectancy
- Above a minimum capital threshold cost of \$25,000
- Required by local codes

# **Categorization of Components**

This report inventories the physical property components located at the facility. The inventoried property components are organized into one of the following categories:

- FDaM Responsibility
- O+M Responsibility
- Long Lived
- Others

FDaM Responsibility pertains to components that are funded by the FDaM capital expenditure budget. These components are the primary focus within this report and the coordinated capital budget.

*O+M Responsibility* pertains to those components that require maintenance or replacement less than the minimum capital threshold of \$25,000. These components are repaired or replaced from O+M funds.

Long Lived pertains to components that are funded through the FDaM capital budget. However, these expenditures are projected beyond the 25 year scope of the capital budget.

Others pertains to components that are repaired/replaced/maintenance by an entity other than FDaM.

### **Component Inventory**

The property components at Northwest Garage are categorized as follows:

#### FDaM Responsibility

**Building Envelope Components** 

- Doors, Garage
- Roof, EPDM
- Roof, Asphalt Shingle, Salt Dome
- Windows, Clerestory

**Interior Building Components** 

- Update, Interior, Offices
- Update, Rest Rooms

Mechanical Systems Components

- AHUs, Replacement
- Boiler, Building Heat
- Fire Warning System
- HVAC, Reconfiguration
- Security System



Unit Heaters

Site Components

- Asphalt Pavement, Seal Coat/ Repair
- Asphalt Pavement, Overlay
- Concrete Flatwork
- Fence, Chain Link
- Structure, Fuel Island
- Underground Storage Tanks

**O+M** Responsibility

- Exterior Façade Maintenance
- Paint Finishes, Exterior
- Paint Finishes, Touch-Up
- Doors, Pedestrian
- Pumps, Building Heat
- Radiant Tube Heaters
- Interim Repairs, AHUs and Unit Heaters

Long Lived

- Windows, Glass Block
- Structure Frame, HQ and Salt Dome
- Light Fixtures, Garage
- Electrical Systems
- Garage Doors, Interior

Others

None

# **Report Information**

The written report includes a combination of information about the FDaM Responsibility components, including:

- Component Inventory
- Condition Assessment
- Photo-documentation

This information is intended to serve as a summary from the aggregation of in-house inspections, consultants reports, historic

data, and the capital budget. In addition, projects funded for ADA compliance are included within the anticipated costs of capital projects.

# **Capital Budget**

The capital budget for the property is included on two spreadsheets. The first spreadsheet contains the anticipated capital projects for years 2011 through 2023. The second spreadsheet contains the anticipated capital projects for years 2024 through 2036. Information on the spreadsheets includes:

- Component name
- Quantity
- Units
- 2011 Unit Cost
- 2011 Replacement Cost
- Useful Life (UL)
- Remaining Useful Life (RUL)
- First Year Funds Requested

*Component Name* pertains to the element which is projected for capital improvement.

*Quantity* includes the measured amount of each component at the property.

*Units* pertains to the measurement used to determine quantity. The units within the report are as follows:

- LF = Linear Feet
- SF = Square Feet
- EA = Each
- LS = Lump Sum

2011 Unit Cost pertains to the estimated cost per unit measurement for capital improvement. These costs are derived from AME, Inc., in-house estimates, or historic data.

2011 Replacement Cost pertains to the

**Facilities Development and Management** 



estimated cost of the capital improvement project. It is derived by multiplying *Quantity* by 2011 Unit Cost.

*Useful Life* (UL) pertains to the time frame in years wherein a component is anticipated to remain functional provided it receive proper maintenance. UL is also referred to as Service Life.

*Remaining Useful Life* (RUL) pertains to the estimated service life remaining for any given component. It coincides with the anticipated year of the capital expenditure.

*First Year Funds Requested* pertains to the year in which the capital expenditure is anticipated.

*Deferred Maintenance* pertains to projects that have been identified for capital repairs but have yet to be completed. The aggregated summation of deferred maintenance projects corresponds to the FCI.

*CRV* Current Replacement Value is the insurance estimate for reconstruction of the facility in today's dollars.

*FCI* Facilities Condition Index is the relationship between the aggregated summation of deferred maintenance projects divided by the Current Replacement Value of the facility. This proportion provides an unbiased measure to analyze the condition of the property, compare with other properties, and compare with industry standards.

### **Limitations of Inspection**

The inspection conducted by City of Milwaukee and its representatives is limited to those components that are observed and identified by mere visual observation. Inspections conducted by the City of Milwaukee do not include:

- (a) Any probing, boring, excavation, or other invasive means of property inspection,
- (b) Testing for or identification of any hazardous materials in any form,
- (c) Identification of construction, structural, design, or other defects that may violate local, state, international, or other building codes and/or regulations, or any kind,
- (d) Identification of any defects that are not readily apparent by mere visual observation including, but not limited to structural defects, leaking pipes, foundational damage, and electrical wiring hazards or defects.

Inspections for any of the above information are contracted to consultants, and conducted on an as needed basis.

#### Doors, Garage

The Northwest Garage contains eight exterior wood garage doors. The garage doors are approximately 10' x 15' each. The wood garage doors are in good/fair condition. However, the paint finish application exhibits peeling and blistering.

The useful life of exterior wood garage doors is up to 20 years with proper maintenance. Proper maintenance includes paint application every 3-5 years and interim repairs as required. The City of Milwaukee anticipates replacement of the garage doors by 2019.

#### Photographs



Typical garage door with paint finish deterioration



Typical interior garage door - long lived element

#### Roof, EPDM

The Northwest Garage roof is in good condition at an age of six years. The EPDM roof was replaced in 2004. The City of Milwaukee has conducted roof repairs, including warranty repairs, the following years:

Year	Company	Cost
2007	Sullivan	\$727
	Winding	\$2,284.69
2008	Winding	\$0
2009	Christiansen	\$380
2010	Christiansen	\$0
	Total	\$3,391.69

The City of Milwaukee anticipates a 20 year useful life for the EPDM roofs. The next roof replacement is likely by 2023.



#### Roof, Asphalt Shingle

The salt dome at the Northwest Garage was constructed in 2008. The domed structure contains an asphalt shingle roof which is in good condition at an age of two years. The useful life of an asphalt shingle roof is up to 20 years. The City of Milwaukee anticipates its replacement by 2028.

#### **Photographs**



Salt dome

#### Windows, Clerestory

Approximately 7,000 SF of single pane windows are located at the rooftop of the Northwest Garage. As documented within an energy report by Wilinski Associates, Inc., the windows are approximately 60 years old.

Wilinski and Associates, Inc. does not document the condition of the windows. However, it is inferred that the natural light provided by the windows reduces electricity costs. The energy study reports that the single pane configuration of the windows is thermally inefficient.

Wilinski and Associates, Inc. suggests the City of Milwaukee replace these windows in the future. For budgetary purposes, the City of Milwaukee projects for replacement of these windows in 2025.

#### Photographs



**Clerestory windows** 



# **Update**, Interior Offices

The interior offices at the Northwest Garage comprise approximately 5,000 SF of interior office space excluding the restrooms. The interior finishes comprise:

- Floor coverings carpet, tile, vinyl
- Wall coverings paint and tile
- Ceiling finishes acoustic tile and paint

The condition of these components is fair overall. The last update to the interior is unknown at this time.

The City of Milwaukee anticipates updates to the interior by 2016 and every 12 years thereafter.

# Update, Rest Rooms

The rest room interiors at the Northwest Garage comprise:

- Toilets and partitions
  - Floor and wall tile
  - Acoustic tile ceiling
  - Sinks/faucets

The condition of these components is fair overall. The floor and wall tiles are original to building construction in 1948, or at an age of 62 years. The ceiling tile and plumbing fixtures were updated since building construction.

The City of Milwaukee plans for updates to the rest rooms by 2024.

### Photographs



Rest room interior



#### Air Handling Units, Replacement

The Northwest Garage contains eight AHUs. The AHUs are in good operational condition.

Based on an energy analysis of the property, the City of Milwaukee anticipates replacement of the AHUs in the near term as part of the HVAC reconfiguration. Subsequent replacement of the AHUs is likely by 2035. These replacements are projected to be coordinated with the replacement of the building heat boilers.

#### Photographs



Typical AHU

### **Boiler, Building Heat**

The Northwest Garage contains two building heat boilers. Each boiler has a capacity of 6,700 MBH. These boilers supply heated water through the interior piping to the AHUs for heated air within the complex.

Based on an energy analysis of the property, these boilers consume approximately 95% of the gas usage at the facility. The boilers are reported to have a relatively low efficiently of 80%.

The City of Milwaukee anticipates replacement of the boilers in the near term as part of the HVAC reconfiguration. Subsequent replacement of the boilers is likely by 2035. These replacements are projected to be coordinated with the replacement of the AHUs.



# Fire Warning System

The fire warning system at the Northwest Garage is comprised of a central control panel and various detection devices including:

- Annuciators
- Pull boxes
- Smoke detectors
- Heat detectors

The system is maintained annually. The useful life of fire warning systems is up to 25 years. The City of Milwaukee anticipates replacement of the fire warning system by 2023.

# HVAC, Reconfiguration

The City of Milwaukee anticipates complete reconfiguration of the HVAC system at the Northwest Garage. Reconfiguration will include replacement, but not be limited to:

- Boilers
- AHUs
- Unit Heaters
- Controls
- Piping

Reconfiguration of the HVAC system is anticipated in 2011. The cost estimate for reconfiguration is provided by AME Inc.



#### **Security System**

The security system at the Northwest Garage is comprised of various detection devices including:

- Cameras
- Video recording devices
- Key card access at the main doors

The system is maintained annually. The useful life of security systems is up to 15 years. The City of Milwaukee anticipates replacement of the security system by 2023.

#### Photographs



Security camera

#### **Unit Heaters**

The Northwest Garage contains 12 unit heaters that are integrated with the two building heat boilers. The unit heaters are independently operated by individual thermostats to provide localized heat as needed.

The City of Milwaukee anticipates replacement of the unit heaters in the near term as part of the HVAC reconfiguration. Subsequent replacement of the unit heaters is likely by 2035. These replacements are projected to be coordinated with the replacement of the AHUs and boilers.



#### Asphalt Pavement, Seal Coat/Repair

A seal coat application is a preventive maintenance surface treatment placed atop asphalt pavement to combat the natural deterioration and provide resistance to weatherization. This material has the ability to fill in small cracks and protect the surface from oxidation. Larger cracks require special attention prior to seal coat application. Localized areas of damaged pavement require patches, or complete removal of the pavement.

Seal coat and repairs should be conducted every 3-5 years. The City of Milwaukee anticipates this to occur at Northwest Garage by 2012 and every five years thereafter.

#### Photographs



Pavement requires maintenance

#### Asphalt Pavement, Overlay

The Northwest Garage contains approximately 18,500 SY of asphalt pavement. The pavement at the north, south, and east of the garage is in fair condition. The pavement at the west end of the garage is in poor condition.

The useful life of asphalt pavement is up to 20 years when subjected to a periodic maintenance program.

Based on the varied condition of the pavement at Northwest Garage, the City of Milwaukee projects a phased overlayment of the asphalt pavement . In 2012, one half of the asphalt pavement (9,250 SY) should be overlaid. The remaining half should be overlaid by 2022. Subsequent overlayment is expected every 20 years thereafter.

#### Photographs



Failed pavement at west end of property



#### **Concrete Flatwork**

The Northwest Garage contains a limited amount of concrete flatwork. The highest concentration of this flatwork is located at the west pavement lot. The concrete is in poor overall condition and exhibits multiple fractures with differential settlement.

The useful life of concrete flatwork is up to 50 years. The City of Milwaukee anticipates replacement of this pavement in conjunction with asphalt pavement overlayment by 2012.

#### **Photographs**



Deteriorated concrete at west end of garage

#### Fence, Chain Link

The Northwest Garage perimeter is enclosed by a chain link fence that measures 2,050 linear feet. This quantity includes the entrance gate. The fence is in good overall condition. The exception is the fence section at the west perimeter adjacent to the rail road tracks. It appears to be in fair to poor condition. Based on its location, replacement of this fence is a low priority capital expenditure.

The useful life of chain link fences is up to 25 years. The City of Milwaukee anticipates replacement of this fence by 2020.



# Structure, Fuel Islands

The Northwest Garage contains three fuel island structures. The condition of these structures is good overall. Exterior, open air structures have a useful life of up to 40 years. Based on their current condition, the City of Milwaukee anticipates their replacement by 2030.

# Photographs



Fuel Island structures

# **Underground Storage Tanks**

The Northwest Garage contains three underground storage tanks that vary in age from 11-14 years. There are no reported issues with the tanks at this time.

The useful life of underground storage tanks is up to 40 years. For the purposes of capital budgeting, the City of Milwaukee anticipates their replacement by 2030 in conjunction with fuel island replacement.



			2011 Unit	2011		First Year														
Northwest Garage	Quantity	Units	Cost	Replacemen	t	Funds	Deferred													
			cost	Cost	UL RUI	. Requested	Maintenance	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Building Envelope Components																				
Doors, Garage	8	EA	\$15,000.00	\$120,000	20 8	2019	\$0									\$152,012				
Roof, EPDM	74,000	SF	\$7.50	\$555,000	20 12	2023	\$0													\$791,297
Roof, Asphalt Shingle, Salt Dome	15,000	SF	\$4.50	\$67,500	20 17	2028	\$0													
Windows, Clerestory	7,000	SF	\$30.00	\$210,000	50 14	2025	\$0													
Interior Building Components																				
Update, Offices	1	LS	\$65,000.00	\$65,000	12 5	2016	\$0						\$75,353							
Update, Rest Rooms	1	LS	\$30,000.00	\$30,000	25 13	2024	\$0													
Mechanical Systems Components																				
AHUs, Replacement	7	EA	\$45,000.00	\$315,000	25 24	2035	\$0													
Boiler, Building Heat	2	EA	\$120,000.00	\$240,000	25 24	2035	\$0													
Fire Warning System	1	LS	\$75,000.00	\$75,000	25 24	2035	\$0													
HVAC, Reconfiguration	1	LS	\$1,600,000.00	\$1,600,000	25 0	2011	\$1,600,000	\$1,600,000												
Security System	1	LS	\$45,000.00	\$45,000	15 12	2023	\$0													\$64,159
Unit Heaters, Replacement	12	EA	\$1,700.00	\$20,400	25 24	2035	\$0													
Site Components																				
Asphalt Pavement, Seal Coat/Repair	18,500	SY	\$1.00	\$18,500	3-5 0	2011	\$18,500	\$18,500						\$22,090					\$25,608	
Asphalt Pavement, Overlay, Phased	9,250	SY	\$14.00	\$129,500	20 0	2011	\$129,500	\$129,500											\$179,258	
Concrete Flatwork, Replacements	1	LS	\$45,000.00	\$45,000	50 0	2011	\$45,000	\$45,000												
Fence, Chain Link (including gates)	2,050	SF	\$30.00	\$61,500	25 9	2020	\$0										\$80,244			
Structure, Fuel Island	3	EA	\$85,000.00	\$255,000	40 19	2030	\$0													
Underground Storage Tanks	4	EA	\$65,000.00	\$260,000	40 19	2030	\$0													
					Tot	al Annual Cost	\$1,793,000	\$1,793,000	\$0	\$0	\$0	\$0	\$75,353	\$22,090	\$0	\$152,012	\$80,244	\$0	\$204,867	\$855,457
							CRV	\$7,040,000	\$7,230,080	\$7,425,292	\$7,625,775	\$7,831,671	\$8,043,126	\$8,260,290	\$8,483,318	\$8,712,368	\$8,947,602	\$9,189,187	\$9,437,295	\$9,692,102
							FCI	0.25												

Notes

City of Milwaukee

Buildings Development and Management

1) The annual building materials inflation rate estimate is 3.00%

2) FY is Fiscal Year. FY is the calendar year.

3) UL is Useful Life and RUL is Remaining Useful Life

4) Current Replacment Value (CRV) growth rate is 2.70%

Northwest Garage	Quantity	Units	2011 Unit	2011 Replacemen	t		First Year Funds													
			Cost	Cost	UL	RUL	Requested	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Building Envelope Components																				
Doors, Garage	8	EA	\$15,000.00	\$120,000	20	8	2019													
Roof, EPDM	74,000	SF	\$7.50	\$555,000	20	12	2023													
Roof, Asphalt Shingle, Salt Dome	15,000	SF	\$4.50	\$67,500	20	17	2028					\$111,567								
Windows, Clerestory	7,000	SF	\$30.00	\$210,000	50	14	2025		\$317,644											
Interior Building Components																				
Update, Offices	1	LS	\$65,000.00	\$65,000	12	5	2016					\$107,435								
Update, Rest Rooms	1	LS	\$30,000.00	\$30,000	25	13	2024	\$44,056												
Mechanical Systems Components																				
AHUs, Replacement	7	EA	\$45,000.00	\$315,000	25	24	2035												\$640,330	
Boiler, Building Heat	2	EA	\$120,000.00	\$240,000	25	24	2035												\$487,871	
Fire Warning System	1	LS	\$75,000.00	\$75,000	25	24	2035												\$152,460	
HVAC, Reconfiguration	1	LS	\$1,600,000.00	\$1,600,000	25	0	2011													
Security System	1	LS	\$45,000.00	\$45,000	15	12	2023													
Unit Heaters, Replacement	12	EA	\$1,700.00	\$20,400	25	24	2035												\$41,469	
Site Components																				
Asphalt Pavement, Seal Coat/Repair	18,500	SY	\$1.00	\$18,500	3-5	0	2011				\$29,687					\$34,415				
Asphalt Pavement, Overlay, Phased	9,250	SY	\$14.00	\$129,500	20	0	2011									\$240,908				
Concrete Flatwork, Replacements	1	LS	\$45,000.00	\$45,000	50	0	2011													
Fence, Chain Link (including gates)	2,050	SF	\$30.00	\$61,500	25	9	2020													
Structure, Fuel Island	3	EA	\$85,000.00	\$255,000	40	19	2030							\$447,144						
Underground Storage Tanks	4	EA	\$65,000.00	\$260,000	40	19	2030							\$455,912						
						Total	Annual Cost	\$44,056	\$317,644	\$0	\$29,687	\$219,002	\$0	\$903,056	\$0	\$275,324	\$0	\$0	\$1,322,129	\$0
								\$9,953,789	\$10,222,541	\$10,498,550	\$10,782,011	\$11,073,125	\$11,372,099	\$11,679,146	\$11,994,483	\$12,318,334	\$12,650,929	\$12,992,504	\$13,343,302	\$13,703,571

Notes

City of Milwaukee

Buildings Development and Management

1) The annual building materials inflation rate estimate is 3.00%

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3) UL is Useful Life and RUL is Remaining Useful Life

4) Current Replacment Value (CRV) growth rate is 2.70%



City Hall Complex Main Building and Site Features	Quantity	Units	2011 Unit Cost	2011 Replacement Cost	UL RUL	First Year Funds Requested	Deferred Maintenance	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Building Envelope Components																				
Column & Ext Wall Systems	1	LS	\$576,079.00	\$576,079	12 1	2011	\$576,079	\$576,079								\$729,760				
Door Systems	1	LS	\$133,760.00	\$133,760	35 1	2011	\$133,760	\$133,760												\$190,710
Roofs	1	EA	\$275,000.00	\$275,000	20 1	2011	\$275,000	\$275,000												\$392,084
Window Systems	1	LS	\$249,149.00	\$249,149	12 1	2011	\$249,149	\$249,149												\$249,149
Interior Building Components																				
Ceiling System, Replace, Phased	1	LS	\$338,599.00	\$338,599	15-25 1	2011	\$338,599	\$338,599					\$392,529					\$455,049		
City Attorney, Renovation	1	LS	\$338,599.00	\$338,599	15-25 1	2011	\$5,000,000	\$5,000,000												
Floor Coverings, Phased	1	LS	\$1,192,137.00	\$1,192,137	15-25 1	2011	\$1,192,137	\$1,192,137					\$1,382,014					\$1,602,132		
Floor Systems, Phased	1	LS	\$167,751.00	\$167,751	15-25 1	2011	\$167,751	\$167,751					\$194,469					\$225,443		
Interior Walls & Partition Systems, Phased	1	LS	\$1,028,811.00	\$1,028,811	25 1	2011	\$1,028,811	\$1,028,811					\$1,192,674					\$1,382,636		
Special Sub-Structures	1	LS	\$1,163,611.00	\$1,163,611	N/A 1	2011	\$1,163,611	\$1,163,611												
Stairways, Phased	1	LS	\$15,028.00	\$15,028	25 1	2011	\$15,028	\$15,028					\$17,422					\$20,196		
Mechanical Systems Components																				
Cooling Systems, Phased	1	LS	\$820,047.00	\$820,047	25 1	2011	\$820,047	\$820,047												
Heating Systems, Phased	1	LS	\$1,091,609.00	\$1,091,609	25 1	2011	\$1,091,609	\$1,091,609												
Ventilation Systems, Phased	1	LS	\$544,604.00	\$544,604	65+ 13	2023	\$0													\$776,475
Electrical Systems Components																				
Electrical Lighting/Power, Phased	1	LS	\$596,119.00	\$596,119	50+ 1	2011	\$596,119	\$596,119												
Electrical Service/Distribution	1	LS	\$1,164,929.00	\$1,164,929	50+ 1	2011	\$1,164,929	\$1,164,929												
Electrical Special Systems	1	LS	\$2,013,306.00	\$2,013,306	N/A 1	2011	\$2,013,306	\$2,013,306												
Extinguishing Systems, Phased	1	LS	\$1,047,607.00	\$1,047,607	50+ 1	2011	\$1,047,607	\$1,047,607									\$1,366,890			
Other Equipment	1	LS	\$126,333.00	\$126,333	30 1	2011	\$126,333	\$126,333												
Plumbing, Phased	1	LS	\$725,976.00	\$725,976	65+ 6	2016	\$0						\$841,605						\$1,004,921	
Site Components																				
Dock/Alley Paving, ZMB	1	LS	\$112,904.00	\$112,904	20 1	2011	\$112,904	\$112,904												
Hollow Walk Reconstruction	1	LS	\$785,216.00	\$785,216	50+ 1	2011	\$785,216	\$785,216												
Hollow Walk Remove/Replace	1	LS	\$10,485,847.00	\$10,485,847	3-5 1	2011	\$10,485,847	\$10,485,847												
Perimeter Sidewalk Replacement	1	LS	\$728,937.00	\$728,937	20 1	2011	\$728,937	\$728,937												
					Tota	al Annual Cost	\$29,112,779	\$29,112,779	\$0	\$0	\$0	\$0	\$4,020,713	\$0	\$0	\$729,760	\$1,366,890	\$3,685,457	\$1,004,921	\$1,608,418
Notes						CRV	/	\$190,000,000	\$195,130,000	\$200,398,510	\$205,809,270	\$211,366,120	\$217,073,005	\$222,933,976	\$228,953,194	\$235,134,930	\$241,483,573	\$248,003,630	\$254,699,728	\$261,576,620
1) The annual building materials inflation ra	ate estimate	e is	3.00%			FC	1	0.15												
2) FY is Fiscal Year. FY is the calendar year.																				
3) UL is Useful Life and RUL is Remaining Us	seful Life																			

4) Current Replacment Value (CRV) growth rate is 2.70%

City Hall Complex	Quantitu	11	2011 Unit	2011 Bankasanaan		F	First Year													
Main Building and Site Features	Quantity	Units	Cost	Cost	ι 		Funds													
				COST	UL	RUL R	equested	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Building Envelope Components																				
Column & Ext Wall Systems	1	LS	\$576,079.00	\$576,079	12	1	2011								\$1,040,463					
Door Systems	1	LS	\$133,760.00	\$133,760	35	1	2011													
Roofs	1	EA	\$275,000.00	\$275,000	20	1	2011			\$428,441								\$542,736		
Window Systems	1	LS	\$249,149.00	\$249,149	12	1	2011													
Interior Building Components																				
Ceiling System, Replace, Phased	1	LS	\$338,599.00	\$338,599	15-25	1	2011			\$527,526					\$611,547					\$708,951
City Attorney, Renovation	1	LS	\$338,599.00	\$338,599	15-25	1	2011													
Floor Coverings, Phased	1	LS	\$1,192,137.00	\$1,192,137	15-25	1	2011			\$1,857,311					\$2,153,132					\$2,496,070
Floor Systems, Phased	1	LS	\$167,751.00	\$167,751	15-25	1	2011			\$261,351					\$302,977					\$351,233
Interior Walls & Partition Systems, Phased	1	LS	\$1,028,811.00	\$1,028,811	25	1	2011			\$1,602,854					\$1,858,147					\$2,154,102
Special Sub-Structures	1	LS	\$1,163,611.00	\$1,163,611	N/A	1	2011													
Stairways, Phased	1	LS	\$15,028.00	\$15,028	25	1	2011			\$23,413					\$27,142					\$31,465
Mechanical Systems Components																				
Cooling Systems, Phased	1	LS	\$820,047.00	\$820,047	25	1	2011													\$1,716,996
Heating Systems, Phased	1	LS	\$1,091,609.00	\$1,091,609	25	1	2011													\$2,285,587
Ventilation Systems, Phased	1	LS	\$544,604.00	\$544,604	65+	13	2023			\$848,475								\$1,074,823		
Electrical Systems Components																				
Electrical Lighting/Power, Phased	1	LS	\$596,119.00	\$596,119	50+	1	2011	\$875,421												\$1,248,141
Electrical Service/Distribution	1	LS	\$1,164,929.00	\$1,164,929	50+	1	2011	\$1,710,738												\$2,439,103
Electrical Special Systems	1	LS	\$2,013,306.00	\$2,013,306	N/A	1	2011													
Extinguishing Systems, Phased	1	LS	\$1,047,607.00	\$1,047,607	50+	1	2011	\$1,538,446				\$1,731,535					\$2,007,323			
Other Equipment	1	LS	\$126,333.00	\$126,333	30	1	2011													
Plumbing, Phased	1	LS	\$725,976.00	\$725,976	65+	6	2016					\$1,199,928						\$1,432,776		
Site Components																				
Dock/Alley Paving, ZMB	1	LS	\$112,904.00	\$112,904	20	1	2011								\$203,917					
Hollow Walk Reconstruction	1	LS	\$785,216.00	\$785,216	50+	1	2011													
Hollow Walk Remove/Replace	1	LS	\$10,485,847.00	\$10,485,847	3-5	1	2011													
Perimeter Sidewalk Replacement	1	LS	\$728,937.00	\$728,937	20	1	2011													
						Total A	nnual Cost	\$4,124,605	\$0	\$5,549,371	\$0	\$2,931,462	\$0	\$0	\$6,197,326	\$0	\$2,007,323	\$3,050,336	\$0	\$13,431,648
Notes							CRV	\$268,639,189	\$275,892,447	\$283,341,543	\$290,991,765	\$298,848,543	\$306,917,453	\$315,204,224	\$323,714,738	\$332,455,036	\$341,431,322	\$350,649,968	\$360,117,517	\$369,840,690
1) The annual building materials inflation ra	ate estimate	is	3.00%				FCI													
2) FY is Fiscal Year. FY is the calendar year.																				
3) UL is Useful Life and RUL is Remaining U	seful Life																			

4) Current Replacment Value (CRV) growth rate is 2.70%

City of Milwaukee

Buildings Development and Management



# DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE SERVICES DIVISION FACILITIES DEVELOPMENT AND MANAGEMENT



# **2010 ROOF INSPECTIONS**



			R	pof Insp	pection	2010					
Building Number	Name	Year Installed	Roof Area Sq/Ft	Current Repl. Value	2011	2012	2013	2014	2015	2016	Deferred Maintenace
1004	Anderson Municipal Building	2003	10,596	\$145,000				•			\$75,000
1178	Northwest Garage	2004	73,594	\$750,000	5						
1610	Safety Academy	1997	63,006	\$670,000							\$1,200
1097	Tow Lot Office	2004	10,303	\$110,000							
1114	Lincoln Avenue Garage	1993	93,969	\$800,000							
1690	Office Building/San/For/HQ	2002	7,596	\$82,000							\$1,200
1674	Central Repair Garage	1988-2010	133,603	\$1,400,000							\$489,000
1747	Vehicle Wash Facility	1988	2,541	\$26,000							
1793	Parking Operations HQ		18,341	\$210,000			1		,		
1796	DPW Field HQ	2006	239,557	\$2,200,000							
1797	DPW Field HQ Vehicle Wash	2006	2,617	\$25,000							
1708	HQ - Forestry South	1986	11,779	\$145,800							
1650	HQ - Forestry Central	1999	17,227	\$160,000							
1781	Garage - Forestry Central	1996	20,832	\$135,000							
1183	Municipal Service Building	1978	57,525	\$675,000							\$175,000
1188	Traffic Sign Shop	1996	11,768	\$115,000							
											1
		6									

	Ro	of Replacn	nent Infor	nation			
Building Number	Name	Year Installed	Roof Area Sq/Ft	Current Repl. Value	Last Inspected	Estimated Replacement Year	Deferred Maintenace
		General C	ity Building	Js			
1001	City Hall	2008					
1002	Zeidler Municipal Building	1993	33,724	\$390,000	2006	2008	
1004	Anderson Municipal Building	2003	10,596	\$145,000	2010	2011	\$75,000
1011	North District Field Station	2000	13,860	\$168,000	2005	2015	
1108	809 Broadway Building	2007	17,472	\$170,000	2006	2022	
1183	Municipal Service Building	1978	57,525	\$675,000	2010	2011	\$175,000
1570	Police Administration Building	1996	33,724	\$280,000	2006	2013	
1610	Safety Academy	1997	63,006	\$670,000	2010	2015	\$1,200
1650	HQ - Forestry Central	1999	17,227	\$160,000	2010	2014	
1690	Office Building/San/For/HQ	2002	7,596	\$82,000	2010	2020	\$1,200
1793	Parking Operations HQ		18,341	\$210,000	2010	2012	
1796	DPW Field HQ	2006	239,557	\$2,200,000	2010	2026	
1797	DPW Field HQ Vehicle Wash	2006	2,617	\$25,000	2010	2026	
		Police [	Department				
1084	Second District Station	2006	16,853	\$105,000	2006	2026	
1085	Neighborhood Task Force Building	1988	14,746	\$173,800	2008	2013	
1086	Fourth District Station	2003	14,750	\$175,000	2005	2033	
1087	Fifth District Station	2011	16,747	\$170,000	2006	2032	
1100	Police Storage Garage	1986	6,503	\$75,700	2008	2011	
1465	Radio Repair Shop	2002	8,650	\$103,500	2008	2017	
1689	Seventh District Station	2003	15,985	\$192,000	2005	2020	
1742	Sixth District Station	1987	16,515	\$147,000	2006	2014	
1786	Police Warehouse						
1791	Third District Station	2001	33,460	\$292,000	2005	2031	

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															\$489.000				
					2011	2011													
		2007	2007	2007	2007	2007			2010	2010	2010	2010	2010	2010	2010	2010			
lorks					\$32,000	\$32,000			\$145,800	\$750.000	\$135.000	\$115,000	\$110,000	\$800,000	\$1,400,000	\$26,000			
Of Public M		1,687	347	221	2,310	2,035			11,779	73.594	20.832	11,768	10,303	93,969	133,603	2,541	43		
Department					1935	1935			1986	2004	1996	1996	2004	1993	1988-2010	1988			
	Northwest Yard Storage	MSB - Quonset Hut	MSB - Storage Building	MSB - Storage Building	South Brick Building	North Brick Building		-	HQ - Forestry South	Northwest Garage	Garage - Forestry Central	Traffic Sign Shop	Tow Lot Office	Lincoln Avenue Garage	Central Repair Garage	Vehicle Wash Facility			
	1061	1063	1064	1065	1159	1168			1708	1178	1781	1188	1097	1114	1674	1747			

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# DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE SERVICES DIVISION FACILITIES DEVELOPMENT AND MANAGEMENT



# **2010 RECREATIONAL FACILITIES**



City of Milwaukee Department of Public Works Recreational Facilities





	Condition Report	
	Play Equipment	
Type Quantity	y Condition Repairs Required / Comments (1) being poor to (10) being execellent	
	Play Structure	
Slides	1 2 3 4 5 6 7 8 9 10	
Climbers	1 2 3 4 5 6 7 8 9 10	
Game Panels	1 2 3 4 5 6 7 8 9 10	
Barrier/Pipe Walls	1 2 3 4 5 6 7 8 9 10	
Grab Bars	1 2 3 4 5 6 7 8 9 10	
Decks	1 2 3 4 5 6 7 8 9 10	
Clamps	1 2 3 4 5 6 7 8 9 10	
	Swing Set	
Swings	1 2 3 4 5 6 7 8 9 10	
Chain	1 2 3 4 5 6 7 8 9 10	
Brackets	1 2 3 4 5 6 7 8 9 10	
Connectors	1 2 3 4 5 6 7 8 9 10	
Structure	1 2 3 4 5 6 7 8 9 10	
	Benches	
Wood	1 2 3 4 5 6 7 8 9 10	
Plastic	1 2 3 4 5 6 7 8 9 10	
Metal Coated	1 2 3 4 5 6 7 8 9 10	
	Basketball Court	
Posts	1 2 3 4 5 6 7 8 9 10	
Backboards	1 2 3 4 5 6 7 8 9 10	
Hoops	1 2 3 4 5 6 7 8 9 10	
	Tennis Court	
Posts	1 2 3 4 5 6 7 8 9 10	
Nets	1 2 3 4 5 6 7 8 9 10	
Cables	1 2 3 4 5 6 7 8 9 10	

ort		Repairs Required / Comments														3		
Condition Rep	Site	Condition (1) being poor to (10) being execellent	Play Surface	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	Edging	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	Fencing	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	Asphalt Area	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10		a A	
		Quantity																
		Type		Woodchips	Poured in Place		Mood	Plastic		Fabric	Posts		Basketball Court	Tennis Court	Walks			

.

RECREATIONAL F	ACILITES - PLAY FIE	ELDS		
City of Milwaukee owne	d, Milwaukee Public Sch	ools operate	d	
Site	Address	Public Access Yes or No	Any Reconstructions Since 1/26/92 Yes or No	Year Built
Custer Play Field	4001 W. Custer Ave.	no	yes	1936
Stark Play Field	4951 N. 40th St.	yes	yes	1949
Carmen Play Field	7320 W. Carmen Ave.	yes	yes	1955
Cass Playground	1620 N. Cass St.	yes	yes	1913
Pulaski Street Playground	1840 N. Pulaski St.	yes	yes	1926
Pumping Station Play Field	1311 E. Chambers St.	yes	yes	1935
Columbia Playground	1345 W. Columbia St.	yes	yes	1925
Green Bay Play Field	3818 N. 8th St.	yes	yes	1929
Reservoir Park Play Field	801 E. North Ave.	yes	yes	1973
Burnham Play Field	1755 S. 32nd St.	yes	yes	1923
Rogers Play Field	35th and Rogers St.	yes	no	1949
Clovernook Play Field	6594 N. Landers St.	yes	yes	1960
Vincent Play Field	7501 N. Granville Rd.	yes	yes	1986
Burbank Play Field	6225 W. Adler St.	yes	yes	1933
Dyer Play Field	151 N. 80th St.	yes	yes	1962
Enderis Play Field	2938 N. 72nd St.	yes	yes	1931
Hawthorn Glen Environmental Center	1130 N. 60th St.	yes	yes	1926
Juneau Play Field	6500 W. Mt. Vernon Ave.	yes	no	1930
Merrill Park Play Field	461 N. 35th St.	yes	yes	1926
Wick Play Field	4929 W. Vliet St.	yes	yes	1922
Holt Playground	1716 W. Holt Ave.	yes	yes	1932
Modrzejewski Playground	1020 W. Cleveland Ave.	yes	yes	1937
Gra-Ram Play Field	3050 W. Green Ave.	yes	yes	1965
Jewell Play Field	1810 W. Wood Ave.	yes	yes	1965
Uncas Playground	212 W. Uncas Ave.	yes	yes	1972
Vvarnomont Playground	3500 S. 1st St.	yes	TIO	1901
Beulan Brinton Play Field	2555 S. Bay St.	yes	yes	1976
Emign Play Field	495 E. Morgan Ave.	yes	yes	1945
Lewis Play Field	1424 E. Pryor Ave.	yes	yes	1927
Chie Dievereured	SUU VV. LINCOIN AVE.	yes	yes	1930
Silon Play Field	2821 S. Kinnickinnia Ava	yes	yes	1000
Sijan Play Field	2021 S. NIIIIICKIIIIIC AVE.	yes	yes	1922
Metcalfe Park Play Field	2043 N. 13th St. 2323 N. 33rd St.	yes	yes	1912

# **RECREATIONAL FACILITIES**

City of Milwaukee owned and operated					
Site	Address		Public Access Yes or No	Any Reconstructions Since 1/26/92 Yes or No	Year Built
20th and Olive	1970 W. Olive St.		yes	no	1970
40th and Douglas	3919 W. Douglas Ave,		yes	yes	1982
Darien and Kiley	6952 N. Darien St.		yes	yes	1964
Long Island	5320 N. Long Island Dr.		yes	yes	1961
Teutonia and Fairmount	5040 N. Teutonia Ave.	Green Space	yes	no	1978
65th and Medford	6445 W. Medford Ave.	Green Space	yes	no	1955
84th and Florist	5969 N. 84th St.		yes	yes	1972
90th and Bender	8900 W. Bender Rd.		yes	yes	1966
97th and Thurston	9714 W. Reichert Ave.		yes	yes	1963
Snail's Crossing	3050 N. Bremen St.		yes	yes	1948
34th and Mt. Vernon	325 N. 34th St.		yes	yes	1973
78th and Fiebrantz	4137 N. 78th St.		yes	yes	1959
Hartung Park	N. Menomonee R. Prkwy. W. Keefe Ave.		yes	NA	2009
1st and Hadley	100 E. Hadley St.	Green Space	yes	yes	1978
1st and Keefe	117 E. Keefe Ave.		yes	NA	1992
1st and Wright	2470 N. 1st St.		yes	yes	1984
5th and Randolph	3460 N. 5th St.		yes	yes	1980
16th and Hopkins	1601 W. Hopkins St.		yes	yes	1980
21st and Keefe	2105 W. Keefe St.		yes	yes	1980
Buffum St.	2630 N. Buffum St.		yes	NA	1995
29th and Melvina	2835 W. Melvina St.		yes	yes	1980
30th and Cawker	2929 N. 30th St.		yes	yes	1981
45th and Keefe	3512 N 45th St.		yes	yes	1949
21st and Rogers	2018 S. 21st St.		yes	yes	1935
36th and Rogers	3514 W. Rogers St.		yes	yes	1951
Arlington Heights Park	3439-3507 W. Pierce St.		yes	yes	1949
N.E. Trowbridge Square	1530 S. 38th St.		yes	yes	1955
Reiske Park	1640 S. 24th St.		yes	yes	1971
62nd and Kaul	6210 W. Kaul Ave.		yes	NA	1998
66th and Port	6440 W. Port Ave.		yes	yes	1974
67th and Spokane	6632 W. Hustis Ave.		yes	yes	1966
84th and Burbank	6671 N. 84th St.		yes	yes	1965
49th and Juneau	5000 W. Juneau Ave.		yes	yes	1951
65th and Stevenson	165 N. 65th St.	Park	yes	no	1955
Marcus DeBack	2461 N 55th St.		yes	yes	1930
30th and Fardale	3101 W. Fardale Ave.	Open Area	yes	no	1960
35th and Lincoln	3430 W. Lincoln Ave.	Green Space	yes	no	1973
51st and Stack	5201 W. Stack Dr.		yes	yes	1955
63rd and Cleveland	2639 S. 62nd St.	Green Space	yes	no	1961
River Bend	3305 S. 73rd St.		yes	yes	1959
4th and Mineral	937 S. 4th St.		yes	yes	1971
13th and Lapham	1300 W. Lapham Blvd.		yes	yes	1972
18th and Washington	1825 W. Washington St.		yes	yes	1964
Witkowiak Play Lot	1648 S. 4th St.		yes	yes	1973
City of Milwaukee Department of Public Works Recreational Facilities

Site	Address		Public Access Yes or No	Any Reconstructions Since 1/26/92 Yes or No	Year Built
Arrow and Comstock	1500 S. Comstock Ave.		yes	NA	2003
Paliafito Park	901 S. 3rd St.	Park	yes	yes	1978
16th and Edgerton	5057 S. 16th St.		yes	yes	1982
Allis Street	2156 S. Allis St.		yes	yes	1960
Bay View Basketball	2201 S. Bay St.		yes	no	1986
Ellen Park	1829 E. Fernwood Ave.		yes	yes	1954
Kaszube's Park	1421 S. Carferry Dr.	Park	yes	no	1978
Zillman Park	2180 S. Kinnickinnic Ave.	Park	yes	no	1965
12th and Wright	2435 N. 12th St.		yes	yes	1947
17th and Vine	1800 N. 17th St.		yes	yes	1975
26th and Medford	2476 N. 26th St.		yes	yes	1949
29th and Meinecke	2403 N. 29th St.		yes	yes	1993
30th and Galena	3002 W. Galena St.		yes	yes	1976
31st and Lloyd	3100 W. Lloyd St.		yes	yes	1972
Foundation	3700 W. McKinley Ave.		yes	NA	2002
Butterfly Park	3717 W. Meinecke Ave.		yes	yes	1985

City of Milwaukee Department of Public Works

Field Houses and Comfort Stations 12/2010

<b>RECREATIONAL F/</b>	ACILITIES										
Building Name	Address	Zip Code	Public Access Yes or No	Number of Floors	Any Structural Renovations Since 1/26/92? Yes or No	Year Built	Number of Toilet Rooms	Number of Elevators	Parking Lot adjacent to Building? Yes or No	Occupant	
78th Street Field House	7801 W. Wilbur Ave.	53220	Yes	۰					ou	MPS/Rec	MPS
Auer Avenue Field House	2221 W. Auer Ave.	53206	Yes	-				1		MPS/Rec	MPS
Becher Field House	2035 S. 20th St.	53204	Yes	-				L		MPS/Rec	MPS
Center	2555 S. Bay St.	53207	Yes	٣	on	1980		1	yes	MPS/Rec	City
Bryant Field House	8718 W. Thurston Ave.	53225	Yes	~				9	no	MPS/Rec	MPS
Burbank Field House	6225 W. Adler St.	53214	Yes	-	ро	1935	2	ï	no	MPS/Rec	City
Bumham Field House	1755 S. 32nd St.	53215	Yes	<del>،</del>	ou	1927	7	1	no	MPS/Rec	City
Carmen Comfort Station	7300 W. Carmen Ave.	53218	Yes	-	ou	1968	2	i.	no	MPS/Rec	City
Cass Field House	1620 N. Cass St.	53202	Yes	-	no	1958	2		no	MPS/Rec	City
Cleveland Field House	1020 W. Cleveland Ave.	53215	Yes	•	ou	1930	2	а	no	MPS/Rec	City
Clovernook Field House	6594 N. Landers St.	53223	Yes	-	on	1968	2		no	MPS/Rec	City
Columbia Field House	1345 W. Columbia St.		Yes	-	ou	1931	2	Ē	no	MPS/Rec	City
Cooper Field House	5134 S. 21st St.	53221	Yes	-					no	MPS/Rec	MPS
Custer Field House	4001 W. Fairmount Ave.	53218	No	۴	ou	1971	2	•	yes	MPS/Rec	City
Dyer Field House	151 N. 80th St.	53213	Yes	-	ou	1962	2	Ĩ	no	MPS/Rec	City
Emigh Field House	495 E. Morgan Ave.	53207	Yes	-		1952		r	ou	MPS/Rec	MPS
Enderis Field House	2938 N. 72nd St.	53210	Yes	-	yes	1950	2		ои	MPS/Rec	City
Franklin Square Field House	2630 N. Teutonia Ave.	53206	Yes	-	ou	1926	2	1	ои	MPS/Rec	City
Golden Age XYZ Center	2414 W. Mitchell St.	53204	Yes	в			8	۲		MPS/Rec	MPS
House	3872 N. 8th St.	53206	Yes	-	ou	1928	2		ро	MPS/Rec	City
Hawthorn Glen Field House	1100-C N. 60th St.	53208	Yes	-	ou	1938	2		ou	MPS/Rec	City
Holt Avenue Field House	1716 W. Holt Ave.	53215	Yes	-	yes	1932	7	1	no	MPS/Rec	City
Jewell Comfort Station	1801 W. Wood Ave.	53221	Yes	-	ou	1965	7		ou	MPS/Rec	City
Juneau Field House	6500 W. Mount Vernon Ave.	53213	Yes	-	ou	1935	2	1	ou	MPS/Rec	City
Station	801 E. North Ave.	53212	No	-	ou	1931	2		ou	City	City
Lewis Field House	1424 E. Pryor Ave.	53207	Yes	-	ou	1936	2		no	MPS/Rec	City
Lincoln Field House	254 W. Lincoln Ave.	53207	Yes	-	ou	1951	2		no	MPS/Rec	City
Merrill Field House	453 N. 35th St.	53208	Yes	-	ou	1927	2	r	yes	MPS/Rec	City
Ohio Field House	974 W. Holt Ave.	53215	Yes	-	ou	1936	2	r	no	MPS/Rec	City
Station	2322 N. 33rd St.	53210	Yes	-	ou	1989	2	1		MPS/Rec	City
Pulaski Comfort Station	1840 N. Pulaski St.	53202	Yes	۲	ou	1983	2		no	MPS/Rec	City
Station	1311 E. Chambers St.	53206	Yes	-	ou	1930	2	Ţ	DO	MPS/Rec	City
Station	2821 S. Kinnickinnic Ave.	53207	Yes	-	ou	1975	2	1	yes	MPS/Rec	City
Sijan Playfield Field House	2940 S. Nevada St.	53207	Yes	-	ou	1937	2	ı	ou	MPS/Rec	City
Stark Field House	4100 W. Stark St.	53209	Yes	۲	ou	1967	2	1	no	MPS/Rec	City
Wick Field House	4929 W. Vliet St.	53212	Yes	-	ou	1940	2	I	no	MPS/Rec	City