

**Milwaukee County War Memorial Center 5 - Year Cost Allocation**

Updated June 27, 2013

Work Description	Est Cost	2013		2014		2015		2016		2017
		County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project
<b>Site Work</b>										
1.1 Mechanical Chamber: West (replace)	\$85,000	\$3,000		\$82,000						
1.2 Mechanical Chamber: East (repair)	\$10,000									\$10,000
1.3 Underground Connection Shafts to Air Chambers	\$15,000			\$15,000						
1.4 Loading Dock: Repair deck & Walls. New roof membrane.	\$435,000	\$5,000				\$430,000				
1.6 Asphalt Paving: Pave, repair, seal - Allowance	\$475,000	\$75,000				\$100,000		\$200,000		\$100,000
<b>Total Site Work</b>	<b>\$1,020,000</b>	<b>\$83,000</b>	<b>\$0</b>	<b>\$97,000</b>	<b>\$0</b>	<b>\$530,000</b>	<b>\$0</b>	<b>\$200,000</b>	<b>\$0</b>	<b>\$110,000</b>
<b>Building Exterior Envelope</b>										
2.1 Expansion Joints @ Mason: Replace	\$87,000			\$87,000						
2.2 Repair Copper Cladded Ledges @ Wall Face	\$51,000							\$51,000		
2.3 Replace WMC Main Built-up Roof	\$440,000					\$40,000		\$400,000		
2.4 Replace WMC Penthouse Roof	\$48,000					\$48,000				
2.5 Exterior Wall Granite: Tuck pointing, selective removal, waterproof membrane, and flashing	\$381,000	\$381,000								
2.55 Allowance for window replacements (in granite areas)	\$125,000	\$125,000								
2.6 Courtyard EIFS repair & refurbish	\$20,000			\$20,000						
2.7 Exterior Wall Concrete: Sealing & Repairs	\$241,000	\$70,000		\$65,000		\$50,000				\$56,000
2.8 Exterior Walls Metal Siding: Replace, with roofs	\$21,000					\$21,000				
2.10 WMC South, East, & West Entrance Assemblies	\$217,000					\$90,000		\$127,000		
2.13 Veterans Courtyard: Replace concrete slabs, repair structure, replace waterproof membrane (Including lighting)	\$750,000			\$750,000						
2.14 Supervisory Engineer	\$125,000	\$50,000		\$30,000		\$25,000		\$20,000		
2.16 Building Exterior Caulk/Sealants Work	\$45,000	\$25,000		\$20,000						
<b>Total Building Exterior Envelope</b>	<b>\$2,551,000</b>	<b>\$651,000</b>	<b>\$0</b>	<b>\$972,000</b>	<b>\$0</b>	<b>\$274,000</b>	<b>\$0</b>	<b>\$598,000</b>	<b>\$0</b>	<b>\$56,000</b>

Work Description	Est Cost	2013		2014		2015		2016		2017
		County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project
<b>Exterior Stairs</b>										
3.1 Veterans Courtyard Enclosed Stairway (Bird Cage): Replace	\$884,000					\$884,000				
3.2 Veterans Courtyard Open Stairway: Replace	\$120,000					\$120,000				
3.4 South Stair: Veterans Courtyard to South Entrance: Repair	\$245,000			\$245,000						
<b>Total Exterior Stairs</b>	<b>\$1,249,000</b>	\$0	\$0	\$245,000	\$0	\$1,004,000	\$0	\$0	\$0	\$0
<b>General Building Exterior</b>										
4.1 Exterior Light Fixtures: Selected Replacements	\$50,000	\$50,000								
4.2 Steel Rails War Memorial Rooftop: Refurbish and/or repair	\$60,000					\$60,000				
<b>Total General Exterior</b>	<b>\$110,000</b>	\$50,000	\$0	\$0	\$0	\$60,000	\$0	\$0	\$0	\$0
<b>Concrete &amp; Structural</b>										
5.1 Spalled & Delaminated Concrete - Cantilever Overhangs	\$26,800	\$19,000								\$7,800
5.2 Spalled & Delaminated Concrete Walls - Cantilever Overhangs	\$82,700	\$37,000								\$45,700
5.3 Concrete Damage at Column Bases	\$36,300	\$20,000								\$16,300
5.4 Expansion Joint @ South Exterior Stairs	\$13,000			\$13,000						
5.5 Concrete Deterioration - South Canopy	\$13,700	\$13,700								
5.6 Concrete Deterioration - North Canopy	\$9,159	\$9,159								
5.7 Clay Tile Deterioration - West wall by Mason Street Bridge	\$72,600	\$15,000								\$57,600
5.8 Interior Cracked Columns - Added columns at sub-basement (if minor)	\$4,300	\$4,300								
5.9 CRITICAL - Interior Cracked Columns - Investigative Work (If major)	\$40,000	\$40,000								
5.10 Interior - Concrete Deterioration below stairs	\$5,700	\$5,700								
5.11 Delaminating & Spalls on Roof Slabs: Cost if moderate	\$58,400	\$8,000				\$50,400				
5.12 Delaminating & Spalls on Roof Slabs: Cost if extensive	\$20,000									\$20,000
5.13 Interior Concrete - Below Expansion joint between Saarinen & Kahler	\$73,700			\$73,700						
5.14 Interior Concrete - Below Expansion joint if more extensive	\$20,000									\$20,000
5.15 Design & Supervisory Engineer	\$115,000	\$78,000		\$25,000		\$12,000				
5.16 Leaks in Walls of Duct Space & Air Tunnels	\$25,000					\$25,000				
5.17 Concrete & Structural - Unidentified Work Allowance	\$250,000			\$50,000		\$50,000		\$75,000		\$75,000
<b>Total Concrete &amp; Structural</b>	<b>\$866,359</b>	\$249,859	\$0	\$161,700	\$0	\$137,400	\$0	\$75,000	\$0	\$242,400

Work Description	Est Cost	2013		2014		2015		2016		2017
		County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project
<b><u>HVAC Systems</u></b>										
East Building (Kahler)										
6.1	Replace AHU-1 & 2, RF-1 & 2	\$1,200,000		\$1,200,000						
6.2	Replace VAV Units	\$450,000		\$450,000						
6.3	Replace Pneumatic Controls With DDC	\$125,000		\$125,000						
6.4	Replace Liner in Main SA & RA Ducts (Duct replacements NOT included)	\$30,000		\$30,000						
6.5	West Window & Door Replacement, Baseboard HVAC Upgrade	\$200,000		\$200,000						
6.6	Insulate Underside of Stairs & Landings at North & South	\$60,000		\$60,000						
West Building (Saarinen)										
6.7	Rezone AHU-1 & 2, add new AHU	\$375,000		\$375,000						
6.8	Replace Pneumatic Controls with DDC, Museum Levels	\$50,000		\$50,000						
6.9	Separation Wall Upgrade, between humidified & unhumidified areas	\$145,000		\$145,000						
6.10	Exterior Wall Insulation in Humidified Areas	\$50,000		\$50,000						
Other HVAC										
6.11	Supplemental Air Quality Testing - Allowance	\$25,000		\$25,000						
6.12	Building Automation Upgrade (Total facility)	\$50,000		\$50,000						
6.13	Removal of damaged insulation or other materials - Allowance	\$20,000		\$20,000						
6.14	HVAC Engineering	\$70,000	\$70,000							
6.15	Other moisture related work w/in HVAC scope - Allowance	\$75,000		\$75,000						
<i>Note: Replacement Ducts and related work NOT included in any areas</i>										
<b>Total HVAC Systems</b>		<b>\$2,925,000</b>	\$70,000	\$0	\$2,855,000	\$0	\$0	\$0	\$0	\$0
<b><u>General Building Interior</u></b>										
7.1	Rest Rooms: Renovate (2) restrooms near south entry	\$110,000				\$110,000				
<b>Total General Interior</b>		<b>\$110,000</b>				\$110,000				
<b><u>Elevators</u></b>										
8.1	Hydraulic Elevators, 4 & 6 Stop: Rebuild and/or refurbish - (5) total	\$525,000	\$50,000	\$100,000		\$150,000		\$225,000		
8.2	Traction Elevators, 7 Stop : Inspect & update (2) Total	\$40,000				\$40,000				
<b>Total Elevator</b>		<b>\$565,000</b>	\$50,000	\$0	\$100,000	\$0	\$190,000	\$0	\$225,000	\$0
<b><u>Electrical Systems</u></b>										
9.1	System Costs Per Reserve Advisor Allowance	\$200,000		\$50,000		\$68,000		\$82,000		
9.2	Emergency Generator - Replace	\$116,000				\$116,000				
9.3	Life Safety Systems - Update systems & related device replacements	\$425,000	\$275,000	\$150,000						
<b>Total Electrical Systems</b>		<b>\$741,000</b>	\$275,000	\$0	\$200,000	\$0	\$184,000	\$0	\$82,000	\$0

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		County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project
<b><u>MAM Basement Renovation</u></b>										
10.1 Demo	\$30,000				\$30,000					
10.2 MEP demo in ceilings	\$30,000				\$30,000					
10.3 Floor refinish	\$109,000					\$109,000				
10.4 New gyp partitions	\$39,000				\$20,000	\$19,000				
10.5 Paint exposed ceiling & walls	\$48,000					\$48,000				
10.6 Misc finishes patching, detailing, etc.	\$25,000				\$10,000	\$15,000				
10.7 Mechanical re-fit - exposed	\$175,000				\$75,000	\$100,000				
10.8 Electrical	\$73,000				\$30,000	\$43,000				
	\$529,000				\$195,000	\$334,000				
<b><u>MAM 1st Floor Renovation</u></b>										
Kahler Building										
11.1 Demo	\$68,000				\$68,000					
11.2 MEP demo in ceilings	\$68,000				\$68,000					
11.3 Demo & renovation @ tie-in to original bldg	\$96,000				\$70,000	\$26,000				
11.4 Floor refinish	\$254,000					\$254,000				
11.5 New gyp ceiling	\$338,000				\$100,000	\$238,000				
11.6 New gyp museum partitions	\$194,000				\$40,000	\$154,000				
11.7 Misc finishes patching, detailing, etc.	\$146,000				\$50,000	\$96,000				
11.8 Mechanical re-fit	\$474,000				\$120,000	\$354,000				
11.9 Electrical & New lighting track	\$271,000				\$70,000	\$201,000				
	\$1,909,000				\$586,000	\$1,323,000				
Saarinen										
11.10 Demo	\$30,000				\$30,000					
11.11 MEP demo in ceilings	\$30,000				\$30,000					
11.12 New custom luminous ceiling	\$290,000					\$290,000				
11.13 New gyp museum partitions	\$46,000				\$20,000	\$26,000				
11.14 Misc finishes patching, detailing, etc.	\$25,000				\$5,000	\$20,000				
11.15 Mechanical re-fit	\$175,000				\$45,000	\$130,000				
11.16 Electrical & New lighting track	\$88,000				\$40,000	\$48,000				
	\$684,000				\$170,000	\$514,000				

Work Description	Est Cost	2013		2014		2015		2016		2017
		County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project
<b><u>MAM 2nd Floor Renovation</u></b>										
Kahler Building										
12.1 Demo	\$46,000				\$46,000					
12.2 MEP demo in ceilings	\$46,000				\$46,000					
12.3 Demo & renovation @ tie-in to original bldg	\$96,000				\$60,000		\$36,000			
12.4 Floor refinish	\$175,000						\$175,000			
12.5 New gyp ceiling	\$232,000				\$80,000		\$152,000			
12.6 New gyp museum partitions	\$194,000				\$45,000		\$149,000			
12.7 Misc finishes patching, detailing, etc.	\$146,000				\$30,000		\$116,000			
12.8 Build-out of new restroom & café space	\$203,000				\$60,000		\$143,000			
12.9 Reno of existing 'Founders Rm' space	\$117,000				\$50,000		\$67,000			
12.10 Mechanical re-fit	\$326,000				\$130,000		\$196,000			
12.11 Electrical & New lighting track	\$186,000				\$50,000		\$136,000			
	\$1,767,000				\$597,000		\$1,170,000			
Saarinen Building										
12.11 General construction & flooring @ office	\$92,000				\$40,000		\$52,000			
12.12 Demo	\$5,000				\$5,000					
12.13 MEP demo in ceilings	\$5,000				\$5,000					
12.14 New custom luminous ceiling	\$134,000				\$30,000		\$104,000			
12.15 New gyp museum partitions	\$46,000				\$21,000		\$25,000			
12.16 Misc finishes patching, detailing, etc.	\$25,000				\$15,000		\$10,000			
12.17 Mechanical re-fit	\$30,000				\$18,000		\$12,000			
12.18 Mechanical new distribution @ office space	\$84,000				\$40,000		\$44,000			
12.19 Electrical & New lighting track	\$39,000				\$20,000		\$19,000			
	\$460,000				\$194,000		\$266,000			
<b><u>MAM Le Vine Gallery Enclosure</u></b>										
13.1 Demo	\$48,000				\$48,000					
13.2 Structural reinf of existing	\$68,000				\$45,000		\$23,000			
13.3 New structure	\$366,000				\$110,000		\$256,000			
13.4 Fireproofing of steel structure	\$25,000						\$25,000			
13.5 New gallery fit-out & tie-in	\$484,000				\$120,000		\$364,000			
13.6 Roof area pedestrian pathway	\$64,000				\$40,000		\$24,000			
13.7 Artists allowance for Memorial	\$48,000						\$48,000			
13.8 Green roof construction	\$465,000						\$465,000			
	\$1,568,000				\$363,000		\$1,205,000			

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		County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project
<b><u>MAM Lake Atrium Addition &amp; Plaza</u></b>										
Atrium Addition										
14.1 Site/Plaza area - no access	\$41,000				\$20,000		\$21,000			
14.2 Demo & excavation	\$54,000				\$54,000					
14.2 East Foundation Waterproofing	\$169,000				\$169,000					
14.3 Building foundations	\$140,000				\$140,000					
14.4 Building structure	\$339,000				\$210,000		\$129,000			
14.5 Glass enclosure	\$1,410,000				\$150,000		\$1,260,000			
14.6 Exterior exit stairs	\$102,000				\$60,000		\$42,000			
14.7 Roof	\$194,000				\$60,000		\$134,000			
14.8 Passenger elevator	\$165,000						\$165,000			
14.9 Prefunction space build-out	\$774,000						\$774,000			
14.10 Custom ornamental stair	\$96,000						\$96,000			
14.11 Misc, reno, tie-in to existing	\$96,000				\$30,000		\$66,000			
	\$3,580,000				\$893,000		\$2,687,000			
Plaza, Entry, Upper Plaza Deck										
14.12 Demo & excavation	\$25,000				\$25,000					
14.13 Foundations and slab for plaza construction	\$68,000				\$68,000					
14.14 Plaza finishes + ramp & stairs	\$88,000				\$40,000		\$48,000			
14.15 Monumental revolving door	\$96,000						\$96,000			
14.16 Monumental alum/SS entry doors	\$30,000						\$30,000			
14.17 Entry canopy - 15'x15'	\$44,000						\$44,000			
14.175 Restore Fitch Stairwells	\$103,000						\$103,000			
14.18 Misc site restoration	\$49,000				\$30,000		\$19,000			
	\$503,000				\$163,000		\$340,000			
14.19 New built-up roof w/ ped paver system	\$554,000				\$554,000					

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		County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project	MAM Project	County Project
<b><u>MAM Technology, Lighting, &amp; Security</u></b>										
15.1 Gallery Lighting Fixtures	\$581,000						\$581,000			
15.2 Phone System	\$15,000						\$15,000			
15.3 Communications Systems & Radio System	\$48,000						\$48,000			
15.4 Special security & cameras - Extension of new system	\$58,000						\$58,000			
15.5 Information Systems & Computers	\$19,000						\$19,000			
15.6 WI Fi throughout	\$23,000						\$23,000			
15.7 Audio Visual, Including Atrium events	\$25,000						\$25,000			
15.8 Plasma Screens	\$5,000						\$5,000			
15.9 Other I.S. & Technology	\$39,000						\$39,000			
	\$813,000				\$0		\$813,000			
<b><u>MAM Equipment &amp; Other</u></b>										
16.1 Storage Space Remodel for Reconfigurations	\$146,000				\$146,000					
16.2 Serving Kitchen Equipment	\$146,000						\$146,000			
16.3 Other	\$25,000						\$25,000			
	\$317,000				\$146,000		\$171,000			
17.1 Design Fees, Insurance, & Miscel	\$1,316,000		\$525,000		\$521,000		\$270,000			
17.2 MAM Contingency (For work items 10.1 through 16.3 only)	\$1,000,000				\$400,000		\$600,000			
<b>TOTAL ESTIMATED COST</b>	<b>\$25,137,359</b>	<b>\$1,428,859</b>	<b>\$525,000</b>	<b>\$4,630,700</b>	<b>\$4,782,000</b>	<b>\$2,489,400</b>	<b>\$9,693,000</b>	<b>\$1,180,000</b>	<b>\$0</b>	<b>\$408,400</b>

The above allocation of costs is for budgetary purposes only. Building and site conditions shall be regularly assessed and monitored by Milwaukee County to ensure the actual timing of the work addresses the necessary safety, structural, indoor air quality, and water infiltration issues.

Above budgets exclude any required removal and/or replacement of damaged HVAC ductwork within Milwaukee Art Museum occupied areas. Design and/or administrative costs for Milwaukee County funded work are excluded, except where specifically listed as "supervisory engineering"

References to "County", in the above cost allocations, relates to Milwaukee County  
References to "MAM", in the above cost allocations, relates to Milwaukee Art Museum

Total Milwaukee County Projects	\$10,137,359
Total Milwaukee Art Museum Project	\$15,000,000

2013 Milwaukee County Projects - Scheduled Work	\$1,428,859
2014 Milwaukee County Projects - Scheduled Work	\$4,630,700
2015 Milwaukee County Projects - Scheduled Work	\$2,489,400
	\$8,548,959
Less budgeted supervisory engineering (Years 2013-2015)	(\$290,000)
Estimated Construction Cost (Years 2013-2015)	\$8,258,959
Estimated Milwaukee County Design & Administrative Costs	\$1,500,000
Total Milwaukee County Budget for 2013-2015	\$9,758,959
Current Milwaukee County costs allocated for WMC Improvements	\$10,000,000
** Projected Balance Year-End 2015	\$241,041

\*\* At the end of Year 2015, Milwaukee County shall perform a facility assessment and provide supplemental funding, as necessary, to ensure there is available funding to properly address outstanding safety, structural, indoor air quality, code compliance, water infiltration, and other critical facility issues that need to be addressed after Year-End 2015.