

**LOWER BADGER MILL CREEK FLOOD MITIGATION PROJECT
CITY OF MADISON, WISCONSIN
FINAL ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST**

Item No.	Description	Quantity	Unit	Unit Price	Total Price	Comments
10701	Traffic Control	1	LS	\$ 5,000.00	\$ 5,000.00	
10911	Mobilization	1	LS	\$ 51,400.00	\$ 51,400.00	
20101	Excavation Cut	51,710	CY	\$ 21.25	\$ 1,099,000.00	This item/quantity should include cut for all areas including dredged open-water wetland
20202	Fill Borrow	6,580	CY	\$ 21.25	\$ 139,850.00	This item/quantity should be used for fill areas outside of Blue Harvest Lane. The City is writing a special provision for borrow and embankment compaction for Blue Harvest Lane.
20219	Breaker Run	700	TON	\$ 14.50	\$ 10,150.00	This item is included for EBS Backfill. Used in situations where contractor encounters soft areas preventing access during construction. Assume 20% of "access routes" will require EBS and EBS backfill (breaker run).
20221	Topsoil	56,670	SY	\$ 4.00	\$ 226,700.00	Total disturbed area, minus maintenance path and Blue Harvest Lane areas.
20235	Heavy Riprap - Glacial Field Stone	90	CY	\$ 95.00	\$ 8,550.00	All heavy riprap areas with exception to around the bridge, which is quantified below. Assume 2-ft thickness
20241	Riprap Filter Fabric, Type HR	5,310	SY	\$ 3.85	\$ 20,450.00	Includes fabric under plunge pool, end wall outfalls, and maintenance path
20404	Clearing	1	LS	\$ 77,000.00	\$ 77,000.00	Use \$7,000/Acre; APPROX 11 ACRES = \$77K
20409	Grubbing	1	LS	\$ 77,000.00	\$ 77,000.00	Use \$7,000/Acre; APPROX 11 ACRES = \$77K
20703	Temporary Seeding	56,670	SY	\$ 0.50	\$ 28,350.00	Total disturbed area, minus maintenance path and Blue Harvest Lane areas.
21002	Erosion Control Inspection	30	EACH	\$ 350.00	\$ 10,500.00	
21011	Construction Entrance	5	EACH	\$ 2,900.00	\$ 14,500.00	
21013	Street Sweeping	1	LS	\$ 10,000.00	\$ 10,000.00	
21014	Clear Stone Berm (Ditch Check)	8	EACH	\$ 260.00	\$ 2,100.00	
21017	Silt Sock (8 Inch) - Complete	1,970	LF	\$ 12.00	\$ 23,650.00	
21021	Silt Fence - Complete	3,530	LF	\$ 3.50	\$ 12,350.00	
21063	Erosion Matting, Class I, Type A - Organic	29,500	SY	\$ 1.85	\$ 54,600.00	
21073	Erosion Matting, Class II, Type C - Organic	4,500	SY	\$ 3.00	\$ 13,500.00	
21084	Erosion Matting, Class III, Type D	530	SY	\$ 21.00	\$ 11,150.00	Item as part of turf reinforcement mat system.
21302	Construction Fence (plastic)	240	LF	\$ 6.25	\$ 1,500.00	Used for tree protection around the 6 oak trees identified in the Tree Inventory Plan
40102	Crushed Aggregate Base Course, Gradation No. 2 or No. 3	2,890	TON	\$ 20.00	\$ 57,800.00	Maintenance path aggregate. 3" depth of gradation no. 3 and 7" depth. Also, add additional quantity of gradation no. 2 w/ 1-foot depth 20% of proposed maintenance path area.
50202	Type II Dewatering	1	LS	\$ 15,000.00	\$ 15,000.00	
50401	12 Inch Type I RCP Storm Sewer Pipe	110	LF	\$ 95.00	\$ 10,450.00	
50403	18 Inch Type I RCP Storm Sewer Pipe	340	LF	\$ 100.00	\$ 34,000.00	
50461	12 Inch RCP AE	4	EACH	\$ 1,250.00	\$ 5,000.00	
50463	18 Inch RCP AE	10	EACH	\$ 1,500.00	\$ 15,000.00	
50511	Precast Reinforced Concrete Box Culvert Wingwalls and Apron	1	EACH	\$ 20,000.00	\$ 20,000.00	
90000	Excavation for Structures Bridges B-13-908	1	EACH	\$ 7,500.00	\$ 7,500.00	
90001	Backfill Structure Type A	422	TON	\$ 26.00	\$ 10,950.00	
90002	Concrete Masonry Bridges	293	CY	\$ 851.00	\$ 249,350.00	
90003	Protective Surface Treatment	234	SY	\$ 4.75	\$ 1,100.00	
90004	Pigmented Surface Sealer	35	SY	\$ 9.50	\$ 350.00	
90005	Bar Steel Reinforcement HS Structures	6,410	LB	\$ 1.50	\$ 9,600.00	
90006	Bar Steel Reinforcement HS Coated Structures	38,340	LB	\$ 1.70	\$ 65,200.00	
90007	Railing Steel Type C3	131	LF	\$ 300.00	\$ 39,300.00	
90008	Rubberized Membrane Waterproofing	26	SY	\$ 50.00	\$ 1,300.00	
90009	Pile Points	16	EACH	\$ 128.50	\$ 2,050.00	
90010	Piling CIP Concrete 10 3/4 X 0.365-Inch	1,000	LF	\$ 70.00	\$ 70,000.00	
90011	Riprap Heavy	262	CY	\$ 75.00	\$ 19,650.00	
90012	Pipe Underdrain Wrapped 6-Inch	234	LF	\$ 10.00	\$ 2,350.00	
90013	Geotextile Type DF Schedule A	88	SY	\$ 8.50	\$ 750.00	
90014	Geotextile Type HR	464	SY	\$ 6.80	\$ 3,150.00	This quantity is strictly for the geotextile under the heavy riprap under the bridge. The rest is accounted for above.
90015	Conduit Rigid Nonmetallic Schedule 40 2-Inch	75	LF	\$ 22.50	\$ 1,700.00	
90016	Architectural Surface Treatment B-13-908	699	SF	\$ 25.00	\$ 17,500.00	
90017	Concrete Staining B-13-908	699	SF	\$ 3.00	\$ 2,100.00	
90030	Stormwater Control Plan and Implementation	1	LS	\$ 15,000.00	\$ 15,000.00	
90031	Pond C Outlet Structure	1	EACH	\$ 10,000.00	\$ 10,000.00	
90032	Clay Anti-Seepage Collar	8	EACH	\$ 1,300.00	\$ 10,400.00	
90033	Bike Gate	1	LS	\$ 10,000.00	\$ 10,000.00	
90034	Overflow Armoring	2,400	SF	\$ 7.25	\$ 17,400.00	Flexamat gave us an estimate of ~\$4.25/SF for material and delivery and installation an additional \$2-\$3 per SF.
90035	Fill Borrow - Blue Harvest Lane	16,110	CY	\$ 30.00	\$ 483,300.00	
10914	Mobilization for Sanitary Sewer Construction	1	L.S.	\$ 6,000.00	\$ 6,000.00	
20221	Topsoil (Salvaged)	310	S.Y.	\$ 4.00	\$ 1,250.00	
20336	Pipe Plug (Sanitary)	2	EACH	\$ 65.00	\$ 150.00	
20701	Terrace Seeding	310	S.Y.	\$ 4.00	\$ 1,250.00	
21063	Erosion Matting, Class I, Type A - Organic	310	S.Y.	\$ 3.00	\$ 950.00	
50202	Type II Dewatering (Sanitary)	1	L.S.	\$ 10,000.00	\$ 10,000.00	
50212	Select Fill for Sanitary Sewer Main	250	T.F.	\$ 8.00	\$ 2,000.00	
50301	8" PVC Sanitary Sewer Pipe SDR-35	250	LF	\$ 145.00	\$ 36,250.00	
50390	Sewer Electronic Markers	1	EACH	\$ 50.00	\$ 50.00	
50701	4' Diameter SAS	1	EACH	\$ 4,000.00	\$ 4,000.00	
50771	Internal Chimney Seal	1	EACH	\$ 500.00	\$ 500.00	
50791	Sanitary Sewer Tap	1	EACH	\$ 2,000.00	\$ 2,000.00	
50797	External SAS Joint Seal	2	EACH	\$ 500.00	\$ 1,000.00	

Pond Items	\$ 2,117,350.00	\$ 2,477,299.50
Bridge & Street Items	\$ 987,200.00	\$ 1,155,024.00
Sanitary Sewer Items	\$ 65,400.00	\$ 76,518.00
Subtotal Project Cost	\$ 3,169,950	\$ 3,708,842
17% Contingency	\$ 538,892	
Construction Cost Total	\$ 3,708,842	OK
Wetland Mitigation (Disturbance 1.46 ac total)	\$ -	Required condition of project permit approvals; payment will be authorized separately once wetland mitigation credit invoice is received (estimated at \$146,000)