

Office of the Executive Engineer
Saidabad Water Treatment Plant (Maintenance)
Dhaka WASA

Name of the work: Repairing, Maintenance & Painting work of inspection pit on treated water reservoir tank at SWTP Phase-1.

Sl No.	Basis of rate (PWD-2022)	Description of Items	Qty	Unit	Rate (Tk)	Amount (Tk)
(1)	(2)	(3)	(4)	(5)	(6)	(7=4x6)
CIVIL WORKS						
1	32.6.1.1	Dismantling of R.C.C. beam, lintel, column, drop wall, sun shade from any height and removal of debris to a safe distance.	4.030	Cum.	3,928.000	15,829.840
2	7.6.1	Cast-in-place fair-faced concrete works with $f_{cr}=33.5$ Mpa and $f_c=25$ Mpa at 28 days on standard cylinders by using 75% of OPC and 25% of white cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5 MPa) / ASTM-C 150 Type – I, best quality Sylhet sand or coarse sand of equivalent F.M. 2.2, 20 mm down and well graded stone chips conforming to ASTM C-33 (Aggregate grading as per table shown in technical specification) at mix ratio of 1:1.5:3, adding coloring pigment admixture (satisfying ASTM C979) as per architectural design, conforming to the standard practice of code ACI/BNBC/ASTM including conducting necessary tests, screening sand and chips through proper sieves, washing, making and placing shutter in position maintaining true to plumb, making shutter water tight properly, placing reinforcement in position, including pouring of concrete in form, compacting by vibrator machine and curing at least for 28 days, removing centering-shuttering after specified time approved; including cost of water, electricity, other charges etc. all complete, approved and accepted by the Engineer-in-charge. (Rate is excluding laboratory test fees, the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering)	4.320	Cum.	17,381.000	75,085.920





3	7.12.12.2	Centering and shuttering, including strutting, propping etc. (The formwork must be rigid enough both in and out of plane, to make the concrete surface true to the designed shape and size by using necessary MS sheets of minimum 16 BWG, angles of minimum size 40 mm x 40 mm x 5 mm, flat bars etc.) and removal of form after hardening of the concrete for: Arches, domes, vaults up to 8 m span (for 2-times use)	54.210	Sqm.	1,501.000	81,369.210
4	8.3	Supplying of Mild steel, grade 250 with minimum fy = 250 MPa, work in roof truss: supplying and fabrication of mild steel sections as per design, hoisting, fitting and fixing in position with bolt and nuts or rivets or welds and providing two coats of anti-corrosive paint over a prime coat of red oxide paint etc. complete and accepted by the Engineer-in-charge.	504.85	Kg	138.000	69669.300
5	15.1.1	Providing minimum 12 mm thick cement sand (F.M. 1.2) plaster (1:4) with fresh cement to both inner and outer surface of wall, finishing the corner and edges including washing of sand, cleaning the surface, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM II/A 30)	29.00	Sqm.	299.000	8,671.000
6	16.7.1	Epoxy enamel paint of approved quality and colour delivered from authorized local agent of the manufacturer in a sealed container; surface preparation including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus (if required must be treated with fungicidal solution) flaking paints, washing the surface with soap water/caustic soda, mending good the surface defects, smoothening the surface by putty, sand papering the surface; applying to Interior concrete surfaces and walls in three coats by brush/roller/spray etc. upto desired finishing; elapsing specified time for drying and recoating; with necessary scaffolding all complete in all floors and accepted by the Engineer-in-charge.	40.89	Sqm.	461.000	18850.290
7	32.25	Renewing of fly proof wire netting (with old and new materials) the excluding cost of wood	12.84	Sqm.	737.000	9,463.080

8	14.15.1	Supplying, fitting, fixing of aluminium sliding fly proof Netting shutter as per the U.S. Architectural Aluminium Manufacturer's Association (AAMA) standard specification and BDS 1879:2014 having 2.0 mm thick outer frame (size 38mm x 38mm), minimum 1.2 mm thick mosquito net shutter frame mesh section (42.2 mm x13.2mm). All aluminium members will be anodized to aluminium bronze/silver/ss/black colour with a coat not less than 15 microns in thickness or powder coated to any colour with a coat not less than 25 microns in thickness and density of 4 mg per square cm etc. including all accessories like wheel, sealant, rubber, bolts and nuts keeping provision for fitting fiber mesh including labour charge for fitting of accessories, making grooves and mending good damages, carriage, and electricity, all complete in all respect as per drawing and accepted by the Engineer-in-charge.	12.84	Sqm.	3,798.000	48,766.320
9	14.17	Supplying, fabrication and Installation of approved colour 4 mm thick Fire Rated Aluminium Composite Panel (Alucobond/Alcopanel/Alpolic or equivalent) of 0.5 mm thick aluminum skin cover both side with 3 coat PVDF on the front face panel sheet and non-combustible mineral filled core/ aluminum hydroxide filled (fr) core, skin cover sheet in Peralumam -100, ENAW -5005 (AlMg1) on the both side (Total weight 7.60kg/sqm), as per US Architectural Aluminium Manufacturer's Association (AAMA) in column, beam and wall surface providing with 44 mm x 44 mm x 1.5 mm aluminum section including supply of necessary hardwares, consumables, scaffolding etc fitted with	12.84	Sqm.	13,051.000	167,574.840
10	LS	safety measure item (gum boot = 4 pairs, visible vest = 4 nos, helmet = 4 nos, hand gloves = 4 pairs etc) . all complete and accepted by the Engineer-in-charge.	1.00	Item	3,300.000	3,300.000
Total Amount Tk.						498,579.800

In Word Taka: Four Lac Ninety Eight Thousand Five Hundred Seventy Nine Point Eight Taka Only.

Signature
22/06/23

ফজিলা খাতুন
উপ-সহকারী প্রকৌশলী
সাঃ পাঃ শোঃ (রক্ষণাবেক্ষণ)
ঢাকা ওয়াসা।

Signature
22/06/23
মনিউর রহমান ভূঞা
সহকারী প্রকৌশলী
সাঃ পাঃ শোঃ (রক্ষণাবেক্ষণ)
ঢাকা ওয়াসা।

Signature
22/06/2023
মোস্তাকিম হোসেন
সহকারী প্রকৌশলী
সাঃ পাঃ শোঃ (রক্ষণাবেক্ষণ)
ঢাকা ওয়াসা।

Calculation

Name of the work: Repairing, Maintenance & Painting work of inspection pit on treated water reservoir tank at SWTP Phase-1.

CIVIL WORK							
Sl. No.	Item Name	No.	Length(m)	Width(m)	Height(m)	Qty	Unit
1	Dismantling of R.C.C						
	Beam	2	10.36	0.3	0.3	1.86	cum
	Column	8	0.68	0.25	0.25	0.34	cum
	Slab	2	3.66	1.52	0.25	1.83	cum
	Total=					4.03	Sqm.
2	Reinforcement cement concrete works:						
	Beam	2	10.36	0.3	0.3	1.86	cum
	Column	8	1.25	0.25	0.25	0.63	cum
	Slab	2	3.66	1.52	0.25	1.83	cum
	Total=					4.32	Sqm.
3	Centering and shuttering:						
	Beam	2	10.36		1.2	24.86	sqm
	Column	8	1.5		1	12.00	sqm
	Slab	2	3.66		1.52	11.13	sqm
		2	10.36		0.3	6.22	sqm
4	Total=					54.21	Sqm.
	MS fabrication						
	beam : 16mm dia	10	10.36		1.58	163.69	kg
	Beam: 10mm dia@100mm c/c	206	1.5		0.62	191.58	kg
	Column: 16mm dia	8	0.68		1.58	8.60	kg
	Stirrup 10 mm dia @100mm c/c	16	1.25		0.62	12.40	kg
	Slab long direction : 10mm dia @100mm c/c	74	1.22		0.62	55.97	kg
	Slab short direction : 10 mm dia @100mm c/c	32	3.66		0.62	72.61	kg
5	Total=					504.85	Sqm.
	Plaster work						
	Column	8	1		0.68	5.44	Sqm.
	Beam	2	10.36		0.6	12.43	Sqm.
	Slab	2	3.66		1.52	11.13	Sqm.
6	Total=					29.00	Sqm.
	Enamel Painting work						
	Beam	2	10.36		0.9	18.65	sqm
	Column	8	1.00		0.68	5.44	sqm
	Slab	2	4.16		2.02	16.81	sqm
7	Total=					40.89	Sqm.
	Fly proof wire netting						
	for window	2	9.44		0.68	12.84	Sqm.
8	Total=					12.84	Sqm.
	Aluminium shutter for fly proof wire netting						
	for window	2	9.44		0.68	12.84	Sqm.
Total=						12.84	Sqm.

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No.	Item Name	No.	Length(m)	Width(m)	Height(m)	Qty	Unit
9	Supplying, fabrication and Installation of approved colour 4 mm thick Fire Rated Aluminium Composite Panel						
	for window	2	9.44		0.68	12.84	Sqm.
	Total=					12.84	Sqm.
10	Safety work						
		1				1.00	Item

Sunil
22/06/23

ফজিলা খাতুন
উপ-সহকারী প্রকৌশলী
সাঃ পাঃ শোঃ (রক্ষণাবেক্ষণ)
ঢাকা ওয়াশা।

মোঃ মাহবুব
22/06/23

মোঃ মাহবুব রহমান
সহকারী প্রকৌশলী
সাঃ পাঃ শোঃ (রক্ষণাবেক্ষণ)
ঢাকা ওয়াশা।

সৈয়দ মোস্তাকিম হোসেন
22/06/2023

সৈয়দ মোস্তাকিম হোসেন
নির্বাহী প্রকৌশলী
জায়েদাবাদ পানি সঞ্চালনা (রক্ষণাবেক্ষণ)
ঢাকা ওয়াশা।