Individual Report

Tender/Proposal Detail			
Tender/Proposal ID :	156933	**Invitation Reference No. :**	T-1/80/1 Date- 22-01-2018
Closing Date and Time :	26-Feb-2018 12:00	**Opening Date and Time :**	26-Feb-2018 12:00
Procuring Entity :	Netrokona O&M Division		
Brief :	Re-sectioning of full embankment of Kangshs River Scheem in between km 2.46 to km 28.4020.90km in upozilla Netrakona Sador and Purbadhola Re-sectioning of submergible embankment of Singer Beel sub-project scheme from km 11.60 to km 15.163.56km in upozilla Barhatta Total24.46km and Construction of 5 vent 1.80 m x1.50 m Kalihar Regulator of Dampara water Management Scheme at km 6.42 in C/W Haor Flood Management and Livelihood Improvement Project BWDB Part under Netrakona O&M Division during the year 2017-18 & 2018-19. Package No.-BWDB/Netr/HFMLIP/PW-03.		

Package No	Package Description
BWDB/Netr/HFMLIP/PW-03.	Re-sectioning of full embankment of Kangshs River Scheem in between km 2.46 to km 28.4020.90km in upozilla Netrakona Sador and Purbadhola Re-sectioning of submergible embankment of Singer Beel sub-project scheme from km 11.60 to km 15.163.56km in upozilla Barhatta Total24.46km and Construction of 5 vent 1.80 m x1.50 m Kalihar Regulator of Dampara water Management Scheme at km 6.42 in C/W Haor Flood Management and Livelihood Improvement Project BWDB Part under Netrakona O&M Division during the year 2017-18 & 2018-19. Package No.-BWDB/Netr/HFMLIP/PW-03.

ARC-LT (JV)
(JVCA)

Bill of Quantities-4

Package No.-BWDB/Netr/HFMLIP/PW-03.

Re-sectioning of full embankment of Kangshs River Scheem in between km 2.46 to km 28.4020.90km in upozilla Netrakona Sador and Purbadhola Re-sectioning of submergible embankment of Singer Beel sub-project scheme from km 11.60 to km 15.163.56km in upozilla Barhatta Total24.46km and Construction of 5 vent 1.80 m x1.50 m Kalihar Regulator of Dampara water Management Scheme at km 6.42 in C/W Haor Flood Management and Livelihood Improvement Project BWDB Part under Netrakona O&M Division during the year 2017-18 & 2018-19.

Bill of Quantities

Item no.	Group	Item Code (if any)	Description of Item	Measurement Unit	Quantity	Unit Price In figures (BDT)	Unit Price In Words (BDT)	Total Price In Figures (BDT)	Total Price In Words (BDT)
31	31	16-520	Supplying and filling sand in foundation of hydraulic structures, buildings and in protective works with selected sand, in 150mm thick layer, including levelling, dressing, ramming, watering etc. complete (compacted	cum	169.040	700.001	Seven Hundred point Zero	118328.169	One Lakh Eighteen Thousand Three Hundred and Twenty

			to 50% relative density by manual laqbour using mallet/vibro compactor) as per direction of Engineer in charge. 16-520-20: sand of FM>= 1.50				Zero One		Twenty-Eight point One Six Nine
32	32	40-610	Supplying and laying dry 1st class or pick jhama chips as filter in two layers (top and bottom) as per specific size, range and gradation, including breaking chips, grading, preparation of surface, compacting each layer etc. complete with supply of all materials and as per direction of Engineer in charge. 40-610-20 (A) Well graded between 40mm to 20mm size.	cum	49.688	4500.001	Four Thousand Five Hundred point Zero Zero One	223596.050	Two Lakh Twenty-Three Thousand Five Hundred and Ninety-Six point Zero Five
32	32	40-610-30	(B) Well graded between 20mm to 5mm size. (Combination of sub-item 10 and 30 or 20 and 30 shall be used)	cum	56.438	4800.001	Four Thousand Eight Hundred point Zero Zero One	270902.456	Two Lakh Seventy Thousand Nine Hundred and Two point Four Five Six
33	33	40-600	Supplying and placing non-woven needle punched type geotextile fabric as filter materials of elongation at maximum force machine direction (MD) >=60% and <= 100 % , elongation at maximum force (CMD) => 40% and <= 100% ,horizontal and vertical permeability (under 2 kn/m² pressure)=>2x 10E-3 m/sec. for effective erosion protection in hydraulic structures/river training works including local handling, placing in position, providing machine seamed joints (with 100% polypropeline or nylon thread) or 35cm lap in dry condition or minimum 100cm lap under water including protecting the geotextile material	sqm	386.100	250.001	Two Hundred and Fifty point Zero Zero One	96525.386	Ninety-Six Thousand Five Hundred and Twenty-Five point Three

			from UV ray and from any other damages including supply of all materials, labours, equipments etc. complete as per direction of Engineer in charge. (Geotextile delivered at site should be certified by ISO and clearly labelled with brand name and grade printed at regular intervals accross the body of the fabric). 40-600-20 . Mass =>300 gm/m², thickness (Under 2 kpa pressure) =>2.00 mm, EoS< =0.11mm, strip tensile strength =>15 kn/m, grab strength =>850 N, CBR puncture resistance =>2200 N.						Eight Six
34	34	40-650	Supplying and laying sand as filter layers as per specific size ranges and gradation including preparation of surface, compacting in layer etc. complete with supply of all materials and as per direction of Engineer in charge. 40-650-20: FM : 2.0 to 2.5	cum	17.037	1000.001	One Thousand point Zero Zero One	17037.017	Seventeen Thousand AND Thirty-Seven point Zero One Seven
35	35	40-190-50	Manufacturing and supplying C.C. blocks in leanest mix. 1:3:6, with cement, sand (FM>= 1.5) and shingles (40mm down graded), to attain a minimum 28 days cylinder strength of 9.0 N/mm2 including grading, washing shingles, mixing, laying in forms, consolidation, curing for at least 21 days, including preparation of platform, shuttering and stacking in measurable stacks etc. complete including supply of all materials (steel shutter to be used) as per direction of Engineer in charge. (A) 40-190-50 : Block size 30cm x 30cm x 30cm	Each	5493.000	500.001	Five Hundred point Zero Zero One	2746505.493	Twenty-Seven Lakh Forty-Six Thousand Five Hundred and Five point Four Nine Three
									Thirteen Lakh

35	35	40-190-40	b) 40-190-40: Block size 40cm x 40cm x 20cm	Each	2483.000	550.001	Five Hundred and Fifty point Zero Zero One	1365652.483	Sixty-Five Thousand Six Hundred and Fifty-Two point Four Eight Three
36	36	40-220	Labour charge for protective works in laying C.C. blocks of different sizes including preparation of base, watering and ramming of base etc. complete as per direction of the Engineer in charge. 40-220-10: Within 200m	cum	227.770	1500.001	One Thousand Five Hundred point Zero Zero One	341655.228	Three Lakh Forty-One Thousand Six Hundred and Fifty-Five point Two Two Eight
37	37	76-170	M.S. Work in plates, angles, channels, flat bars, Tees etc. including fabricating, machining, cutting, bending, welding, forging, drilling, revetting, embedding anchor bars, staging and fitting, fixing, local handling etc. complete with energy consumption and supply of labours including the cost of materials as per design, specification and direction of Engineer in charge.	kg	13868.870	150.001	One Hundred and Fifty point Zero Zero One	2080344.369	Twenty Lakh Eighty Thousand Three Hundred and Forty-Four point Three Six Nine
38	38	80-230	Supplying, laying, fitting and fixing of different dia G.I. pipes with all special fittings, such as bends, elbows, sockets, tees, unions, jam nuts etc. including cutting foundation trenches upto required depth where necessary and filling the same with earth duly compacted, making holes in floors and walls and clips, including cutting threads, making necessary connection etc. all complete including the cost of all materials as per direction of Engineer in charge. 80-230-40 : 40mm dia G.I. pipe line.	m	18.000	550.001	Five Hundred and Fifty point Zero Zero One	9900.018	Nine Thousand Nine Hundred point Zero One Eight
			Manufacturing, supplying, Installation and fitting, fixing the						

39	39	76-240	vertical steel lift gate/flap gate as per design and specification, including fabricating, rivetting, welding, fixing rubber seal, providing required nuts and bolts including the cost of all materials etc. complete with a prime coat of redoxide where necessary as per direction of Engineer in charge. (Applicable only for size not specified and smaller than size mentioned in Item code 76-240-40: Size 1.95m x 1.65m	Each	10.000	90000.001	Ninety Thousand point Zero Zero One	900000.010	Nine Lakh point Zero One
40	40	76-260	Labour charge for fitting and fixing of M.S. vertical lift gate/flap gate shutters of different size including making holes in concrete for hooking arrangements with supply of necessary materials, tools and other accessories required for fitting the same to regulator/sluice and mending the damages with CC (1:2:4), removing the spoils etc.complete including the cost of all materials as per direction of Engineer in charge. 76-260-20: Size 1.95m x 1.35m or 1.95m x 1.65m	each	10.000	15000.001	Fifteen Thousand point Zero Zero One	150000.010	One Lakh Fifty Thousand point Zero One
41	41	76-190	Manufacturing, supplying and Installation of Padestal type lifting device for slide gate with 63mm dia threaded steel shaft, 146mm outer dia bronze nut, thrust bearing, steel bevel gear etc. as per approved design including supply of all components, labours with a prime coat of redoxide where necessary etc. complete including the cost of all materials as per specification and direction of Engineer in charge.	Each	10.000	75000.001	Seventy-Five Thousand point Zero Zero One	750000.010	Seven Lakh Fifty Thousand point Zero One
			Earth work by manual						

42	42	16-140	labour in resectioning of embankment/ canal bank/ river slopes/road/compound etc. manually compacted by 7.0 kg iron rammer to avoid any air pocket in clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand) within the initial lead of 30m and all lifts including throwing the spoils to profile in layers not exceding 150mm thickness with clod breaking to a maximum size of 100mm, removing roots & stumps of trees of girth upto 200mm from the ground, benching the side slopes, stripping/ploughing the base of embankment and borrowpit areas, dug bailing, bail out of water, rough dressing including 150mm cambering at the centre of the crest (where necessary) etc. complete as per direction of Engineer in charge. 16-140-10: 0.00m to 3.00m height.	cum	8432.000	140.001	One Hundred and Forty point Zero Zero One	1180488.432	Eleven Lakh Eighty Thousand Four Hundred and Eighty-Eight point Four Three Two
43	43	16-130	Earth work by manual labour in all kinds of soil in excavation or reexcavation of channels with the initial lead of 30m and lift of 1.5m including levelling, dressing and throwing the spoils to profile with breaking clods, rough dressing, clearing jungles including cutting trees upto 200mm girth, dug bailing etc. complete as per direction of Engineer in charge.	Each	19247.400	100.001	One Hundred point Zero Zero One	1924759.247	Nineteen Lakh Twenty-Four Thousand Seven Hundred and Fifty-Nine point Two Four Seven
44	44	16-200	Extra rate for every additional lift of 1.0m or part thereof beyond the initial lift of 1.5m (30cm negleted) for all kinds of earth work. 3nos lift	pltcum	9623.700	31.515	Thirty-One point Five One Five	303290.906	Three Lakh Three Thousand Two Hundred and Ninety point Nine Zero Six
			Constructing at site, cement mortar gauge on masonry wall,						

45	45	04-280	including engraving in meter, decimeter & centimeter, painting and figuring with black and red water proof paint, etc. complete as per direction of Engineer in charge. 04-280-10: 150 mm x 25 mm	m	24.600	500.001	Five Hundred point Zero Zero One	12300.025	Twelve Thousand Three Hundred point Zero Two Five
46	46	16-240	Earth work by manual labour in all kinds of soil in removing the cross bundh/ring bundh, including all leads and lifts complete and placing the spoils to a safe distance, (minimum 15m apart from the bank) as per direction of Engineer in charge.	cum	1019.910	140.001	One Hundred and Forty point Zero Zero One	142788.420	One Lakh Forty-Two Thousand Seven Hundred and Eighty-Eight point Four Two
47	47	16-540	Back filling in hydraulic structures including all leads and lifts in 150mm layer including watering, ramming compacting to 30% relative density etc. complete by compactor or any other suitable method as per direction of Engineer in charge. 16-540-20 : Sand of FM>= 0.50	cum	2680.810	400.001	Four Hundred point Zero Zero One	1072326.681	Ten Lakh Seventy-Two Thousand Three Hundred and Twenty-Six point Six Eight One
48	48	16-530	Back filling in hydraulic structures and slope building in protective works including all leads and lifts with selected local soil in layer of 150mm including watering, ramming etc. complete compacted to 20% relative density by compactor or any other suitable method as per direction of Engineer in charge.	cum	4764.150	140.001	One Hundred and Forty point Zero Zero One	666985.764	Six Lakh Sixty-Six Thousand Nine Hundred and Eighty-Five point Seven Six Four
49	49	68-130	Supplying pressure treated wooden fall boards/stop logs of different size (not less than 15cm in depth) of Sal, Sundari, Garjan, Shishu or equivalant for regulator/sluices, including fixing in position with eye hook etc. complete as per direction of Engineer in charge.	cum	14.662	65000.001	Sixty-Five Thousand point Zero Zero One	953030.015	Nine Lakh Fifty-Three Thousand AND Thirty point Zero One Five
			Supplying, fitting and fixing of the different						

50	50	80-260	dia G.I. water distribution pipe line, with all special fittings such as bends, elbows, sockets, reducing sockets, tees, unions etc. including cutting trench up to an average depth of 0.90m, maintaining proper level, cutting pipes where necessary, making threads etc. all complete, as per direction of Engineer in charge. 80-260-20 : 50mm dia G.I. pipe line.	m	54.000	1000.001	One Thousand point Zero Zero One	54000.054	Fifty-Four Thousand point Zero Five Four
51	51	Analysis rate	Providing and maintaining adequate portable water supply by installing 4 nos. of tube well and sanitation facilities by installing 6 nos. of sanitary latrines for usage of labours, Officials and others for prevailing the hygenic and healthy environment at all over the working site as per direction of the engineer in charge.	item	1.000	124658.281	One Lakh Twenty-Four Thousand Six Hundred and Fifty-Eight point Two Eight One	124658.281	One Lakh Twenty-Four Thousand Six Hundred and Fifty-Eight point Two Eight One
52	52	Analysis rate	Mobilize, strengthen required land based consatruction equipment such as excavator, dump truck, chain dozer, vibro-compactor and plants such as gemetor for site electrification, digital camera for taking photographs and digital vedio camera for recording/Taking Photograph as sequences of works etc. for keeping records of the works by providing following information including transfer to site, complete for the purposes stated in the technical specification and Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	106389.908	One Lakh Six Thousand Three Hundred and Eighty-Nine point Nine Zero Eight	106389.908	One Lakh Six Thousand Three Hundred and Eighty-Nine point Nine Zero Eight
		Analysis	Operate, maintain of plant and equipment such as generator for site electrification for the purpose stated in				One Lakh Ten Thousand Nine Hundred		One Lakh Ten Thousand Nine

53	53	Analysis rate	the technical specification and Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	110903.821	Hundred and Three point Eight Two One	110903.821	Nine Hundred and Three point Eight Two One
54	54	Analysis rate	Demobilization and clean-up of the site upon completion of the works, as per Technical Specification, Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	112344.101	One Lakh Twelve Thousand Three Hundred and Forty-Four point One Zero One	112344.101	One Lakh Twelve Thousand Three Hundred and Forty-Four point One Zero One
55	55	NSI	Environmental Monitoring through Sample Collection and analysis such as Air quality test, Surface water test, sound level monitoring ,Traffic signs and road navigation, safty provitions with first aid and medical Assistant as per direction of Engineer in charge.	item	1.000	250000.001	Two Lakh Fifty Thousand point Zero Zero One	250000.001	Two Lakh Fifty Thousand point Zero Zero One
							Grand Total:	16084712.355	One Crore Sixty Lakh Eighty-Four Thousand Seven Hundred and Twelve point Three Five Five

Bill of Quantities-4

Package No.-BWDB/Netr/HFMLIP/PW-03.

This Bill of Quantities-4 is Electronically Signed by Mr. F.M on behalf of ARC-LT (JV)

Mohammed Eunus & Brothers (Pvt.) Ltd.

Bill of Quantities-4

Package No.-BWDB/Netr/HFMLIP/PW-03.

Re-sectioning of full embankment of Kangshs River Scheem in between km 2.46 to km 28.4020.90km in upozilla Netrakona Sador and Purbadhola Re-sectioning of submergible embankment of Singer Beel sub-project scheme from km 11.60 to km 15.163.56km in upozilla Barhatta Total24.46km and Construction of 5 vent 1.80 m x1.50 m Kalihar Regulator of Dampara water Management Scheme at km 6.42 in C/W Haor Flood Management and Livelihood Improvement Project BWDB Part under Netrakona O&M Division during the year 2017-18 & 2018-19.

Bill of Quantities

Item no.	Group	Item Code (if any)	Description of Item	Measurement Unit	Quantity	Unit Price In figures (BDT)	Unit Price In Words (BDT)	Total Price In Figures (BDT)	Total Price In Words (BDT)
31	31	16-520	Supplying and filling sand in foundation of hydraulic structures, buildings and in protective works with selected sand, in 150mm thick layer, including levelling, dressing, ramming, watering etc. complete (compacted to 50% relative density by manual laqbour using mallet/vibro compactor) as per direction of Engineer in charge. 16-520-20: sand of FM>= 1.50	cum	169.040	1450.481	One Thousand Four Hundred and Fifty point Four Eight One	245189.308	Two Lakh Forty-Five Thousand One Hundred and Eighty-Nine point Three Zero Eight
32	32	40-610	Supplying and laying dry 1st class or pick jhama chips as filter in two layers (top and bottom) as per specific size, range and gradation, including breaking chips, grading, preparation of surface, compacting each layer etc. complete with supply of all materials and as per direction of Engineer in charge. 40-610-20 (A) Well graded between 40mm to 20mm size.	cum	49.688	3968.751	Three Thousand Nine Hundred and Sixty-Eight point Seven Five One	197199.300	One Lakh Ninety-Seven Thousand One Hundred and Ninety-Nine point Three
32	32	40-610-30	(B) Well graded between 20mm to 5mm size. (Combination of sub-item 10 and 30 or 20 and 30 shall be used)	cum	56.438	4358.381	Four Thousand Three Hundred and Fifty-Eight point Three Eight One	245978.307	Two Lakh Forty-Five Thousand Nine Hundred and Seventy-Eight point Three Zero Seven
			Supplying and placing non-woven needle punched type geotextile fabric as filter materials of elongation at maximum force machine direction						

33	33	40-600	(MD) >=60% and <= 100 % , elongation at maximum force (CMD) => 40% and <= 100% ,horizontal and vertical permeability (under 2 kn/m² pressure)=>2x 10E-3 m/sec. for effective erosion protection in hydraulic structures/river training works including local handling, placing in position, providing machine seamed joints (with 100% polypropeline or nylon thread) or 35cm lap in dry condition or minimum 100cm lap under water including protecting the geotextile material from UV ray and from any other damages including supply of all materials, labours, equipments etc. complete as per direction of Engineer in charge. (Geotextile delivered at site should be certified by ISO and clearly labelled with brand name and grade printed at regular intervals accross the body of the fabric). 40-600-20 . Mass =>300 gm/m², thickness (Under 2 kpa pressure) =>2.00 mm, EoS< =0.11mm, strip tensile strength =>15 kn/m, grab strength =>850 N, CBR puncture resistance =>2200 N.	sqm	386.100	200.191	Two Hundred point One Nine One	77293.745	Seventy-Seven Thousand Two Hundred and Ninety-Three point Seven Four Five
34	34	40-650	Supplying and laying sand as filter layers as per specific size ranges and gradation including preparation of surface, compacting in layer etc. complete with supply of all materials and as per direction of Engineer in charge. 40-650-20: FM : 2.0 to 2.5	cum	17.037	1604.611	One Thousand Six Hundred and Four point Six One One	27337.758	Twenty-Seven Thousand Three Hundred and Thirty-Seven point Seven Five Eight
			Manufacturing and supplying C.C. blocks in leanest mix. 1:3:6, with cement, sand						

35	35	40-190-50	(FM>= 1.5) and shingles (40mm down graded), to attain a minimum 28 days cylinder strength of 9.0 N/mm2 including grading, washing shingles, mixing, laying in forms, consolidation, curing for at least 21 days, including preparation of platform, shuttering and stacking in measurable stacks etc. complete including supply of all materials (steel shutter to be used) as per direction of Engineer in charge. (A) 40-190-50 : Block size 30cm x 30cm x 30cm	Each	5493.000	275.921	Two Hundred and Seventy-Five point Nine Two One	1515634.053	Fifteen Lakh Fifteen Thousand Six Hundred and Thirty-Four point Zero Five Three
35	35	40-190-40	b) 40-190-40: Block size 40cm x 40cm x 20cm	Each	2483.000	332.531	Three Hundred and Thirty-Two point Five Three One	825674.473	Eight Lakh Twenty-Five Thousand Six Hundred and Seventy-Four point Four Seven Three
36	36	40-220	Labour charge for protective works in laying C.C. blocks of different sizes including preparation of base, watering and ramming of base etc. complete as per direction of the Engineer in charge. 40-220-10: Within 200m	cum	227.770	1293.581	One Thousand Two Hundred and Ninety-Three point Five Eight One	294638.944	Two Lakh Ninety-Four Thousand Six Hundred and Thirty-Eight point Nine Four Four
37	37	76-170	M.S. Work in plates, angles, channels, flat bars, Tees etc. including fabricating, machining, cutting, bending, welding, forging, drilling, revetting, embedding anchor bars, staging and fitting, fixing, local handling etc. complete with energy consumption and supply of labours including the cost of materials as per design, specification and direction of	kg	13868.870	110.001	One Hundred and Ten point Zero Zero One	1525589.569	Fifteen Lakh Twenty-Five Thousand Five Hundred and Eighty-Nine point Five Six Nine

			Engineer in charge.						
38	38	80-230	Supplying, laying, fitting and fixing of different dia G.I. pipes with all special fittings, such as bends, elbows, sockets, tees, unions, jam nuts etc. including cutting foundation trenches upto required depth where necessary and filling the same with earth duly compacted, making holes in floors and walls and clips, including cutting threads, making necessary connection etc. all complete including the cost of all materials as per direction of Engineer in charge. 80-230-40 : 40mm dia G.I. pipe line.	m	18.000	562.031	Five Hundred and Sixty-Two point Zero Three One	10116.558	Ten Thousand One Hundred and Sixteen point Five Five Eight
39	39	76-240	Manufacturing, supplying, Installation and fitting, fixing the vertical steel lift gate/flap gate as per design and specification, including fabricating, rivetting, welding, fixing rubber seal, providing required nuts and bolts including the cost of all materials etc. complete with a prime coat of redoxide where necessary as per direction of Engineer in charge. (Applicable only for size not specified and smaller than size mentioned in Item code 76-240-40: Size 1.95m x 1.65m	Each	10.000	98449.881	Ninety-Eight Thousand Four Hundred and Forty-Nine point Eight Eight One	984498.810	Nine Lakh Eighty-Four Thousand Four Hundred and Ninety-Eight point Eight One
40	40	76-260	Labour charge for fitting and fixing of M.S. vertical lift gate/flap gate shutters of different size including making holes in concrete for hooking arrangements with supply of necessary materials, tools and other accessories required for fitting the same to regulator/sluice and mending the damages with CC (1:2:4), removing the spoils etc.complete including	each	10.000	11174.651	Eleven Thousand One Hundred and Seventy-Four point Six Five One	111746.510	One Lakh Eleven Thousand Seven Hundred and Forty-Six point Five One

			the cost of all materials as per direction of Engineer in charge. 76-260-20: Size 1.95m x 1.35m or 1.95m x 1.65m						
41	41	76-190	Manufacturing, supplying and Installation of Padestal type lifting device for slide gate with 63mm dia threaded steel shaft, 146mm outer dia bronze nut, thrust bearing, steel bevel gear etc. as per approved design including supply of all components, labours with a prime coat of redoxide where necessary etc. complete including the cost of all materials as per specification and direction of Engineer in charge.	Each	10.000	87555.181	Eighty-Seven Thousand Five Hundred and Fifty-Five point One Eight One	875551.810	Eight Lakh Seventy-Five Thousand Five Hundred and Fifty-One point Eight One
42	42	16-140	Earth work by manual labour in resectioning of embankment/ canal bank/ river slopes/road/compound etc. manually compacted by 7.0 kg iron rammer to avoid any air pocket in clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand) within the initial lead of 30m and all lifts including throwing the spoils to profile in layers not exceding 150mm thickness with clod breaking to a maximum size of 100mm, removing roots & stumps of trees of girth upto 200mm from the ground, benching the side slopes, stripping/ploughing the base of embankment and borrowpit areas, dug bailing, bail out of water, rough dressing including 150mm cambering at the centre of the crest (where necessary) etc. complete as per direction of Engineer in charge. 16-140-10: 0.00m to 3.00m height.	cum	8432.000	215.481	Two Hundred and Fifteen point Four Eight One	1816935.792	Eighteen Lakh Sixteen Thousand Nine Hundred and Thirty-Five point Seven Nine Two

43	43	16-130	Earth work by manual labour in all kinds of soil in excavation or reexcavation of channels with the initial lead of 30m and lift of 1.5m including levelling, dressing and throwing the spoils to profile with breaking clods, rough dressing, clearing jungles including cutting trees upto 200mm girth, dug bailing etc. complete as per direction of Engineer in charge.	Each	19247.400	163.521	One Hundred and Sixty-Three point Five Two One	3147354.095	Thirty-One Lakh Forty-Seven Thousand Three Hundred and Fifty-Four point Zero Nine Five
44	44	16-200	Extra rate for every additional lift of 1.0m or part thereof beyond the initial lift of 1.5m (30cm negleted) for all kinds of earth work. 3nos lift	pltcum	9623.700	37.861	Thirty-Seven point Eight Six One	364362.906	Three Lakh Sixty-Four Thousand Three Hundred and Sixty-Two point Nine Zero Six
45	45	04-280	Constructing at site, cement mortar gauge on masonry wall, including engraving in meter, decimeter & centimeter, painting and figuring with black and red water proof paint, etc. complete as per direction of Engineer in charge. 04-280-10: 150 mm x 25 mm	m	24.600	82.661	Eighty-Two point Six Six One	2033.461	Two Thousand AND Thirty-Three point Four Six One
46	46	16-240	Earth work by manual labour in all kinds of soil in removing the cross bundh/ring bundh, including all leads and lifts complete and placing the spoils to a safe distance, (minimum 15m apart from the bank) as per direction of Engineer in charge.	cum	1019.910	163.521	One Hundred and Sixty-Three point Five Two One	166776.703	One Lakh Sixty-Six Thousand Seven Hundred and Seventy-Six point Seven Zero Three
47	47	16-540	Back filling in hydraulic structures including all leads and lifts in 150mm layer including watering, ramming compacting to 30% relative density etc. complete by compactor or any other suitable method as per direction of Engineer in charge. 16-540-20 : Sand of	cum	2680.810	785.031	Seven Hundred and Eighty-Five point Zero Three One	2104518.955	Twenty-One Lakh Four Thousand Five Hundred and Eighteen point Nine Five Five

			FM>= 0.50						
48	48	16-530	Back filling in hydraulic structures and slope building in protective works including all leads and lifts with selected local soil in layer of 150mm including watering, ramming etc. complete compacted to 20% relative density by compactor or any other suitable method as per direction of Engineer in charge.	cum	4764.150	150.001	One Hundred and Fifty point Zero Zero One	714627.264	Seven Lakh Fourteen Thousand Six Hundred and Twenty-Seven point Two Six Four
49	49	68-130	Supplying pressure treated wooden fall boards/stop logs of different size (not less than 15cm in depth) of Sal, Sundari, Garjan, Shishu or equivalant for regulator/sluices, including fixing in position with eye hook etc. complete as per direction of Engineer in charge.	cum	14.662	67317.921	Sixty-Seven Thousand Three Hundred and Seventeen point Nine Two One	987015.358	Nine Lakh Eighty-Seven Thousand AND Fifteen point Three Five Eight
50	50	80-260	Supplying, fitting and fixing of the different dia G.I. water distribution pipe line, with all special fittings such as bends, elbows, sockets, reducing sockets, tees, unions etc. including cutting trench up to an average depth of 0.90m, maintaining proper level, cutting pipes where necessary, making threads etc. all complete, as per direction of Engineer in charge. 80-260-20 : 50mm dia G.I. pipe line.	m	54.000	814.941	Eight Hundred and Fourteen point Nine Four One	44006.814	Forty-Four Thousand AND Six point Eight One Four
51	51	Analysis rate	Providing and maintaining adequate portable water supply by installing 4 nos. of tube well and sanitation facilities by installing 6 nos. of sanitary latrines for usage of labours, Officials and others for prevailing the hygenic and healthy environment at all over the working site as per direction of the engineer in charge.	item	1.000	111148.951	One Lakh Eleven Thousand One Hundred and Forty-Eight point Nine Five One	111148.951	One Lakh Eleven Thousand One Hundred and Forty-Eight point Nine Five One

52	52	Analysis rate	Mobilize, strengthen required land based consatruction equipment such as excavator, dump truck, chain dozer, vibro-compactor and plants such as gemetor for site electrification, digital camera for taking photographs and digital vedio camera for recording/Taking Photograph as sequences of works etc. for keeping records of the works by providing following information including transfer to site, complete for the purposes stated in the technical specification and Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	92026.551	Ninety-Two Thousand AND Twenty-Six point Five Five One	92026.551	Ninety-Two Thousand AND Twenty-Six point Five Five One
53	53	Analysis rate	Operate, maintain of plant and equipment such as generator for site electrification for the purpose stated in the technical specification and Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	110909.921	One Lakh Ten Thousand Nine Hundred and Nine point Nine Two One	110909.921	One Lakh Ten Thousand Nine Hundred and Nine point Nine Two One
54	54	Analysis rate	Demobilization and clean-up of the site upon completion of the works, as per Technical Specification, Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	112344.111	One Lakh Twelve Thousand Three Hundred and Forty-Four point One One One	112344.111	One Lakh Twelve Thousand Three Hundred and Forty-Four point One One One
55	55	NSI	Environmental Monitoring through Sample Collection and analysis such as Air quality test, Surface water test, sound level monitoring ,Traffic signs and road navigation, safty provitions with first aid and medical Assistant as per direction of Engineer in charge.	item	1.000	250000.001	Two Lakh Fifty Thousand point Zero Zero One	250000.001	Two Lakh Fifty Thousand point Zero Zero One
									One Crore Sixty-Nine

							Grand Total:	16960510.028	Lakh Sixty Thousand Five Hundred and Ten point Zero Two Eight

Bill of Quantities-4

Package No.-BWDB/Netr/HFMLIP/PW-03.

This Bill of Quantities-4 is Electronically Signed by Mr. Mohammed Eunus on behalf of Mohammed Eunus & Brothers (Pvt.) Ltd.

Western Engineering (Pvt.) Ltd.-M/S. BHAWAL CONSTRUCTION-Joint Venture (JVCA)

Bill of Quantities-4

Package No.-BWDB/Netr/HFMLIP/PW-03.

Re-sectioning of full embankment of Kangshs River Scheem in between km 2.46 to km 28.4020.90km in upozilla Netrakona Sador and Purbadhola Re-sectioning of submergible embankment of Singer Beel sub-project scheme from km 11.60 to km 15.163.56km in upozilla Barhatta Total24.46km and Construction of 5 vent 1.80 m x1.50 m Kalihar Regulator of Dampara water Management Scheme at km 6.42 in C/W Haor Flood Management and Livelihood Improvement Project BWDB Part under Netrakona O&M Division during the year 2017-18 & 2018-19.

Bill of Quantities

Item no.	Group	Item Code (if any)	Description of Item	Measurement Unit	Quantity	Unit Price In figures (BDT)	Unit Price In Words (BDT)	Total Price In Figures (BDT)	Total Price In Words (BDT)
31	31	16-520	Supplying and filling sand in foundation of hydraulic structures, buildings and in protective works with selected sand, in 150mm thick layer, including levelling, dressing, ramming, watering etc. complete (compacted to 50% relative density by manual laqbour using mallet/vibro compactor) as per direction of Engineer in charge. 16-520-20: sand of FM>= 1.50	cum	169.040	1305.432	One Thousand Three Hundred and Five point Four Three Two	220670.225	Two Lakh Twenty Thousand Six Hundred and Seventy point Two Two Five
			Supplying and laying dry 1st class or pick jhama chips as filter in two layers (top and bottom) as per						One Lakh

	32	32	40-610	bottom) as per specific size, range and gradation, including breaking chips, grading, preparation of surface, compacting each layer etc. complete with supply of all materials and as per direction of Engineer in charge. 40-610-20 (A) Well graded between 40mm to 20mm size.	cum	49.688	3571.875	Three Thousand Five Hundred and Seventy-One point Eight Seven Five	177479.325	One Lakh Seventy-Seven Thousand Four Hundred and Seventy-Nine point Three Two Five
	32	32	40-610-30	(B) Well graded between 20mm to 5mm size. (Combination of sub-item 10 and 30 or 20 and 30 shall be used)	cum	56.438	3922.542	Three Thousand Nine Hundred and Twenty-Two point Five Four Two	221380.425	Two Lakh Twenty-One Thousand Three Hundred and Eighty point Four Two Five
	33	33	40-600	Supplying and placing non-woven needle punched type geotextile fabric as filter materials of elongation at maximum force machine direction (MD) >=60% and <= 100 % , elongation at maximum force (CMD) => 40% and <= 100% ,horizontal and vertical permeability (under 2 kn/m² pressure)=>2x 10E-3 m/sec. for effective erosion protection in hydraulic structures/river training works including local handling, placing in position, providing machine seamed joints (with 100% polypropeline or nylon thread) or 35cm lap in dry condition or minimum 100cm lap under water including protecting the geotextile material from UV ray and from any other damages including supply of all materials, labours, equipments etc. complete as per direction of Engineer in charge. (Geotextile delivered at site should be certified by ISO and clearly labelled with brand	sqm	386.100	180.171	One Hundred and Eighty point One Seven One	69564.023	Sixty-Nine Thousand Five Hundred and Sixty-Four point Zero Two Three

			name and grade printed at regular intervals accross the body of the fabric). 40-600-20 . Mass =>300 gm/m², thickness (Under 2 kpa pressure) =>2.00 mm, EoS< =0.11mm, strip tensile strength =>15 kn/m, grab strength =>850 N, CBR puncture resistance =>2200 N.						
34	34	40-650	Supplying and laying sand as filter layers as per specific size ranges and gradation including preparation of surface, compacting in layer etc. complete with supply of all materials and as per direction of Engineer in charge. 40-650-20: FM : 2.0 to 2.5	cum	17.037	1444.149	One Thousand Four Hundred and Forty-Four point One Four Nine	24603.967	Twenty-Four Thousand Six Hundred and Three point Nine Six Seven
35	35	40-190-50	Manufacturing and supplying C.C. blocks in leanest mix. 1:3:6, with cement, sand (FM>= 1.5) and shingles (40mm down graded), to attain a minimum 28 days cylinder strength of 9.0 N/mm2 including grading, washing shingles, mixing, laying in forms, consolidation, curing for at least 21 days, including preparation of platform, shuttering and stacking in measurable stacks etc. complete including supply of all materials (steel shutter to be used) as per direction of Engineer in charge. (A) 40-190-50 : Block size 30cm x 30cm x 30cm	Each	5493.000	248.328	Two Hundred and Forty-Eight point Three Two Eight	1364065.704	Thirteen Lakh Sixty-Four Thousand AND Sixty-Five point Seven Zero Four
35	35	40-190-40	b) 40-190-40: Block size 40cm x 40cm x 20cm	Each	2483.000	299.277	Two Hundred and Ninety-Nine point Two Seven Seven	743104.791	Seven Lakh Forty-Three Thousand One Hundred and Four point Seven Nine One
			Labour charge for protective works in				One		Two Lakh

36	36	40-220	laying C.C. blocks of different sizes including preparation of base, watering and ramming of base etc. complete as per direction of the Engineer in charge. 40-220-10: Within 200m	cum	227.770	1164.222	One Thousand One Hundred and Sixty-Four point Two Two Two	265174.845	Sixty-Five Thousand One Hundred and Seventy-Four point Eight Four Five
37	37	76-170	M.S. Work in plates, angles, channels, flat bars, Tees etc. including fabricating, machining, cutting, bending, welding, forging, drilling, revetting, embedding anchor bars, staging and fitting, fixing, local handling etc. complete with energy consumption and supply of labours including the cost of materials as per design, specification and direction of Engineer in charge.	kg	13868.870	136.737	One Hundred and Thirty-Six point Seven Three Seven	1896387.677	Eighteen Lakh Ninety-Six Thousand Three Hundred and Eighty-Seven point Six Seven Seven
38	38	80-230	Supplying, laying, fitting and fixing of different dia G.I. pipes with all special fittings, such as bends, elbows, sockets, tees, unions, jam nuts etc. including cutting foundation trenches upto required depth where necessary and filling the same with earth duly compacted, making holes in floors and walls and clips, including cutting threads, making necessary connection etc. all complete including the cost of all materials as per direction of Engineer in charge. 80-230-40 : 40mm dia G.I. pipe line.	m	18.000	505.827	Five Hundred and Five point Eight Two Seven	9104.886	Nine Thousand One Hundred and Four point Eight Eight Six
39	39	76-240	Manufacturing, supplying, Installation and fitting, fixing the vertical steel lift gate/flap gate as per design and specification, including fabricating, rivetting, welding, fixing rubber seal, providing required nuts and bolts including the cost of all materials etc. complete with a prime	Each	10.000	88604.892	Eighty-Eight Thousand Six Hundred and Four point	886048.920	Eight Lakh Eighty-Six Thousand AND Forty-

			coat of redoxide where necessary as per direction of Engineer in charge. (Applicable only for size not specified and smaller than size mentioned in Item code 76-240-40: Size 1.95m x 1.65m				point Eight Nine Two		Eight point Nine Two
40	40	76-260	Labour charge for fitting and fixing of M.S. vertical lift gate/flap gate shutters of different size including making holes in concrete for hooking arrangements with supply of necessary materials, tools and other accessories required for fitting the same to regulator/sluice and mending the damages with CC (1:2:4), removing the spoils etc.complete including the cost of all materials as per direction of Engineer in charge. 76-260-20: Size 1.95m x 1.35m or 1.95m x 1.65m	each	10.000	10057.185	Ten Thousand AND Fifty-Seven point One Eight Five	100571.850	One Lakh Five Hundred and Seventy-One point Eight Five
41	41	76-190	Manufacturing, supplying and Installation of Padestal type lifting device for slide gate with 63mm dia threaded steel shaft, 146mm outer dia bronze nut, thrust bearing, steel bevel gear etc. as per approved design including supply of all components, labours with a prime coat of redoxide where necessary etc. complete including the cost of all materials as per specification and direction of Engineer in charge.	Each	10.000	78799.662	Seventy-Eight Thousand Seven Hundred and Ninety-Nine point Six Six Two	787996.620	Seven Lakh Eighty-Seven Thousand Nine Hundred and Ninety-Six point Six Two
			Earth work by manual labour in resectioning of embankment/ canal bank/ river slopes/road/compound etc. manually compacted by 7.0 kg iron rammer to avoid any air pocket in clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand)						

42	42	16-140	within the initial lead of 30m and all lifts including throwing the spoils to profile in layers not exceding 150mm thickness with clod breaking to a maximum size of 100mm, removing roots & stumps of trees of girth upto 200mm from the ground, benching the side slopes, stripping/ploughing the base of embankment and borrowpit areas, dug bailing, bail out of water, rough dressing including 150mm cambering at the centre of the crest (where necessary) etc. complete as per direction of Engineer in charge. 16-140-10: 0.00m to 3.00m height.	cum	8432.000	193.932	One Hundred and Ninety-Three point Nine Three Two	1635234.624	Sixteen Lakh Thirty-Five Thousand Two Hundred and Thirty-Four point Six Two Four
43	43	16-130	Earth work by manual labour in all kinds of soil in excavation or reexcavation of channels with the initial lead of 30m and lift of 1.5m including levelling, dressing and throwing the spoils to profile with breaking clods, rough dressing, clearing jungles including cutting trees upto 200mm girth, dug bailing etc. complete as per direction of Engineer in charge.	Each	19247.400	147.168	One Hundred and Forty-Seven point One Six Eight	2832601.363	Twenty-Eight Lakh Thirty-Two Thousand Six Hundred and One point Three Six Three
44	44	16-200	Extra rate for every additional lift of 1.0m or part thereof beyond the initial lift of 1.5m (30cm negleted) for all kinds of earth work. 3nos lift	pltcum	9623.700	34.074	Thirty-Four point Zero Seven Four	327917.954	Three Lakh Twenty-Seven Thousand Nine Hundred and Seventeen point Nine Five Four
45	45	04-280	Constructing at site, cement mortar gauge on masonry wall, including engraving in meter, decimeter & centimeter, painting and figuring with black and red water proof paint, etc. complete as per direction of Engineer in charge. 04-280-10: 150 mm x	m	24.600	74.394	Seventy-Four point Three Nine Four	1830.092	One Thousand Eight Hundred and Thirty point Zero Nine Two

			25 mm						
46	46	16-240	Earth work by manual labour in all kinds of soil in removing the cross bundh/ring bundh, including all leads and lifts complete and placing the spoils to a safe distance, (minimum 15m apart from the bank) as per direction of Engineer in charge.	cum	1019.910	147.168	One Hundred and Forty-Seven point One Six Eight	150098.115	One Lakh Fifty Thousand AND Ninety-Eight point One One Five
47	47	16-540	Back filling in hydraulic structures including all leads and lifts in 150mm layer including watering, ramming compacting to 30% relative density etc. complete by compactor or any other suitable method as per direction of Engineer in charge. 16-540-20 : Sand of FM>= 0.50	cum	2680.810	706.527	Seven Hundred and Six point Five Two Seven	1894064.647	Eighteen Lakh Ninety-Four Thousand AND Sixty-Four point Six Four Seven
48	48	16-530	Back filling in hydraulic structures and slope building in protective works including all leads and lifts with selected local soil in layer of 150mm including watering, ramming etc. complete compacted to 20% relative density by compactor or any other suitable method as per direction of Engineer in charge.	cum	4764.150	161.496	One Hundred and Sixty-One point Four Nine Six	769391.168	Seven Lakh Sixty-Nine Thousand Three Hundred and Ninety-One point One Six Eight
49	49	68-130	Supplying pressure treated wooden fall boards/stop logs of different size (not less than 15cm in depth) of Sal, Sundari, Garjan, Shishu or equivalant for regulator/sluices, including fixing in position with eye hook etc. complete as per direction of Engineer in charge.	cum	14.662	60586.128	Sixty Thousand Five Hundred and Eighty-Six point One Two Eight	888313.809	Eight Lakh Eighty-Eight Thousand Three Hundred and Thirteen point Eight Zero Nine
50	50	80-260	Supplying, fitting and fixing of the different dia G.I. water distribution pipe line, with all special fittings such as bends, elbows, sockets, reducing sockets, tees, unions etc. including cutting trench up to an average	m	54.000	733.446	Seven Hundred and Thirty-Three	39606.084	Thirty-Nine Thousand Six Hundred

			depth of 0.90m, maintaining proper level, cutting pipes where necessary, making threads etc. all complete, as per direction of Engineer in charge. 80-260-20 : 50mm dia G.I. pipe line.				Three point Four Four Six		Hundred and Six point Zero Eight Four
51	51	Analysis rate	Providing and maintaining adequate portable water supply by installing 4 nos. of tube well and sanitation facilities by installing 6 nos. of sanitary latrines for usage of labours, Officials and others for prevailing the hygenic and healthy environment at all over the working site as per direction of the engineer in charge.	item	1.000	100034.076	One Lakh AND Thirty-Four point Zero Seven Six	100034.076	One Lakh AND Thirty-Four point Zero Seven Six
52	52	Analysis rate	Mobilize, strengthen required land based consatruction equipment such as excavator, dump truck, chain dozer, vibro-compactor and plants such as gemetor for site electrification, digital camera for taking photographs and digital vedio camera for recording/Taking Photograph as sequences of works etc. for keeping records of the works by providing following information including transfer to site, complete for the purposes stated in the technical specification and Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	82823.895	Eighty-Two Thousand Eight Hundred and Twenty-Three point Eight Nine Five	82823.895	Eighty-Two Thousand Eight Hundred and Twenty-Three point Eight Nine Five
53	53	Analysis rate	Operate, maintain of plant and equipment such as generator for site electrification for the purpose stated in the technical specification and Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	99818.928	Ninety-Nine Thousand Eight Hundred and Eighteen point Nine Two Eight	99818.928	Ninety-Nine Thousand Eight Hundred and Eighteen point Nine Two Eight
			Demobilization and clean-up of the site				One Lakh		One Lakh

54	54	Analysis rate	upon completion of the works, as per Technical Specification, Contractor's Method Statement and as per direction of Engineer in Charge.	item	1.000	101109.559	One Thousand One Hundred and Nine point Five Five Nine	101109.559	One Thousand One Hundred and Nine point Five Five Nine
55	55	NSI	Environmental Monitoring through Sample Collection and analysis such as Air quality test, Surface water test, sound level monitoring ,Traffic signs and road navigation, safty provitions with first aid and medical Assistant as per direction of Engineer in charge.	item	1.000	100000.002	One Lakh point Zero Zero Two	100000.002	One Lakh point Zero Zero Two
							Grand Total:	15788997.574	One Crore Fifty-Seven Lakh Eighty-Eight Thousand Nine Hundred and Ninety-Seven point Five Seven Four

Bill of Quantities-4

Package No.-BWDB/Netr/HFMLIP/PW-03.

This Bill of Quantities-4 is Electronically Signed by Mr. FAKHAR on behalf of Western Engineering (Pvt.) Ltd.-M/S. BHAWAL CONSTRUCTION-Joint Venture