Individual Report

Tender/Proposal Detail			
Tender/Proposal ID :	143780	**Invitation Reference No. :**	BWDB/Kishore/T-1/6591 Date: 30/11/2017
Closing Date and Time :	04-Jan-2018 14:40	**Opening Date and Time :**	04-Jan-2018 14:40
Procuring Entity :	Kishoreganj WD Division		
Brief :	WDB/Kish/HFMLIP/PW-20 Construction of 1 Causeway-4 nos a Chhitra Khal 4.00m at km 21.77 of Nunnir Haor b Nabinpur Khal 4.00m at km 23.38 of Noapara Haor c Dipjuri Khal 4.0m at km 27.00 of Boro Haor d Sudhi Khal 4.00m at km 33.30 of Boro Haor 2Box sluice/Dranage Culvert- 4 nos a Chhagalia khal at km 10.48 of Noapara haor b Near Nasir at km 7.74 of Nunnir haor c Singhpur khal at km 11.17 of Noapara haor d Goru Chara Khal at km. 10.00 of Boro Haor 3 Irrigation Inlet structure-36 nos in different placess in Noapara haor Nunnir haor & Boro haor in c/w Haor Flood Management and Livelihood Improved Improvement ProjectBWDB Part under Kishoregange WD Division BWDB Kishoregonj during the FY 2017-18 & 2018-19. Package No. WDB/Kish/HFMLI/PW-20.		

Package No	Package Description
WDB/Kish/HFMLIP/PW-20	Construction of 1 Causeway-4 nos a Chhitra Khal 4.00m at km 21.77 of Nunnir Haor b Nabinpur Khal 4.00m at km 23.38 of Noapara Haor c Dipjuri Khal 4.0m at km 27.00 of Boro Haor d Sudhi Khal 4.00m at km 33.30 of Boro Haor 2Box sluice/Dranage Culvert- 4 nos a Chhagalia khal at km 10.48 of Noapara haor b Near Nasir at km 7.74 of Nunnir haor c Singhpur khal at km 11.17 of Noapara haor d Goru Chara Khal at km. 10.00 of Boro Haor 3 Irrigation Inlet structure-36 nos in different placess in Noapara haor Nunnir haor & Boro haor in c/w Haor Flood Management and Livelihood Improved Improvement ProjectBWDB Part under Kishoregange WD Division BWDB Kishoregonj during the FY 2017-18 & 2018-19. Package No. WDB/Kish/HFMLI/PW-20.

AKA-UCL (JV)
(JVCA)

Bill Of Quantity -03-(Nabinpur khal causeway)

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)
41	04-120	04-120	Construction of B.M. Pillars at site with first class bricks in cement mortar (1:4) of size 38cm x 38cm x 75cm on cement concrete (1:2:4) base of size 50cm x 50cm x 7.5cm with 12mm thick cement plastering (1:2) on exposed surfaces of pillar and cement morter on top (1:2), with inscription of "BWDB" with 25cm of the pillar balow ground level etc. complete including ramming the backfill and the cost of all materials as per direction of Engineer in charge.	each	5.000	1203.771	One Thousand Two Hundred and Three point Seven Seven One	6018.855	Six Thousand AND Eighteen point Eight Five Five
42	04-180	04-180	Site preparation by manually removing all miscellaneous objectional materials form entire site and removing soil upto 15cm depth including uprooting stumps, jungle clearing, levelling dressing etc.	sqm	9000.000	27.701	Twenty-Seven point Seven Zero One	249309.000	Two Lakh Forty-Nine Thousand Three Hundred and Nine

			complete as per direction of Engineer in charge.						and Nine
43	12-100	12-100	Installation of pizeometer including supply of 40mm G.I. pipe, brass strainer, socket, labour, by wash boring, lowering, fixing the elevation and providing cover on the top of the well etc. complete as per direction of Engineer in charge.	each	6.000	2584.221	Two Thousand Five Hundred and Eighty-Four point Two Two One	15505.326	Fifteen Thousand Five Hundred and Five point Three Two Six
44	16-310	16-310-10	Earth work in excavation of foundation trenches in all kinds of soil as per layout plan of foundation excavation with all leads and lifts and placing the spoil earth for constructing the ring bundh/offerdam where necessary as per design and specification or disposing it to a safe distance including pushing, levelling, dressing, etc. complete as per direction of Engineer in charge. 16-310-10 : For moving spoil earth upto a distance of 100m from the centre of the pit	cum	3225.602	246.711	Two Hundred and Forty-Six point Seven One One	795791.495	Seven Lakh Ninety-Five Thousand Seven Hundred and Ninety-One point Four Nine Five
45	16-560	16-560-20	Shoring for slope protection of foundation trench, canal, embankment, road, pond etc. as per design slopes, grades including removal of spoils to a safe distance as per direction of Engineer in charge. 16-560-20: By bamboo post of 6.0m length, c/c fixed with nails.	sqm	341.600	837.151	Eight Hundred and Thirty-Seven point One Five One	285970.782	Two Lakh Eighty-Five Thousand Nine Hundred and Seventy point Seven Eight Two
46	12-310	12-310-20	Bailing out of water with all leads and lifts by manual labour or pump, with all arrengements for protection of ring bund and side slopes of foundation pit against erosion or washout etc. complete actual volume of work will be measured by sounding method before starting the work) as per direction of Engineer in charge. 12-310-20 : By pump.	cum	50971.286	6.131	Six point One Three One	312504.954	Three Lakh Twelve Thousand Five Hundred and Four point Nine Five Four
47	44-240	44-240-30	Supplying at site U-shape hot rolled steel sheet pile of different section of Phosphorus=0.04%(Maximum), Sulphur = 0.04% (Maximum), Copper= 0.25% (Minimum), Tensile strength=> 490 N/mm2 , Yield strength =>296 N/mm2, Elongation =15% (Minimum) including all taxes, freights, incidental charges etc. complete as per direction of the Engineer -in- charge. 44-240-30 : U-shape, hot-rolled steel sheet pile width= 400mm to 600mm: height=> 100mm, Th.= > 10.5: wt. per sqm of pile wall =>120 kg/m2: sectional modulus per one meter of pile wall width => 874 cm3/m	Mton	16.992	150000.001	One Lakh Fifty Thousand point Zero Zero One	2548800.017	Twenty-Five Lakh Forty-Eight Thousand Eight Hundred point Zero One Seven

48	44-320	44-320-10	Cutting of steel sheet piles to design length and shape as per requirement in design and drawing and as per direction of Engineer in charge. 44-320-10 : Upto 10mm thick.	m	80.240	39.161	Thirty-Nine point One Six One	3142.279	Three Thousand One Hundred and Forty-Two point Two Seven Nine
49	12-300	12-300	Construction of sump well with dug holes of size 1.80 m x 2.0 m, laying in position the perforated empty diesel/petrol drum sheet of 1.00 m dia to a depth 1.5m having slot area of 1000 sq.cm/sqm, slot dia being 30mm each with supply of necessary shrouding materials comprising of 60% 40mm down graded khoa and 40% coarse sand of FM>=2.50 and placing those around and beneath the drum sheet having thickness of 40cm and 50cm respectively including necessary welding, fitting etc. complete as per direction of Engineer in charge.	each	10.000	17211.171	Seventeen Thousand Two Hundred and Eleven point One Seven One	172111.710	One Lakh Seventy-Two Thousand One Hundred and Eleven point Seven One
50	44-270	44-270-20	Driving steel sheet piles of various sections and weights of any type of soil, by monkey hammer including handling and placing in position, staging and supplying of all equipments like monkey hammer, pully, rope, bamboo, bullah etc. including correcting leaning beyond tolerance & other defects and any other incidental cost etc. complete (measurement will be taken on projected width x height) as per direction of Engineer in charge. 44-270-20: U-type or any other type : Upto 4.50 m depth.	sqm	123.900	1250.751	One Thousand Two Hundred and Fifty point Seven Five One	154968.049	One Lakh Fifty-Four Thousand Nine Hundred and Sixty-Eight point Zero Four Nine
51	72-180	72-180	Painting of steel sheet piles, 2 coats of bitumen paint, including preparation of surface with sand paper, iron brush etc. including the cost of all materials and labour etc. complete as per direction of Engineer in charge.	sqm	481.440	293.331	Two Hundred and Ninety-Three point Three Three One	141221.277	One Lakh Forty-One Thousand Two Hundred and Twenty-One point Two Seven Seven
52	44-310	44-310	Supplying and placing 20mm thick hessian cloth impregnated with bitumen in expansion joints or on top of sheet piles as per specification and direction of Engineer in charge.	sqm	45.900	461.801	Four Hundred and Sixty-One point Eight Zero One	21196.666	Twenty-One Thousand One Hundred and Ninety-Six point Six Six Six
53	44-220	44-220-10	Supplying and laying single layer polythene sheet in floor below cement concrete, RCC slab, on walls etc. complete in all respect as per direction of Engineer in charge.	sqm	343.776	31.221	Thirty-One point Two Two One	10733.030	Ten Thousand Seven Hundred and Thirty-Three

			44-220-10: Weighing minimum 1.0 kg per 6.50 sqm						Three point Zero Three
54	28-120	28-120-20	Cement concrete work in leanest mix. 1:3:6 with sand of FM>=1.5, in foundation or floor including breaking, screening, grading and washing aggregates with clear water, mixing, laying in position, consolidation to levels, curing, including supply of all materials, excluding the cost of formworks etc. complete as per direction of Engineer in charge. 28-120-20: With 25mm down graded stone chips.	cum	39.988	11500.001	Eleven Thousand Five Hundred point Zero Zero One	459862.040	Four Lakh Fifty-Nine Thousand Eight Hundred and Sixty-Two point Zero Four
55	28-100	28-100-20	Cement concrete work in leanest mix. 1:4:8, with sand of FM>=1.5, in foundation or floor, including breaking, screening, grading and washing aggregates with clear water, mixing, laying in position, consolidation to levels, curing, including supply of all materials, excluding the cost of formworks etc. complete as per direction of Engineer in charge. 28-100-20 : With 25mm down graded stone chips	cum	1.813	11500.001	Eleven Thousand Five Hundred point Zero Zero One	20849.502	Twenty Thousand Eight Hundred and Forty-Nine point Five Zero Two
56	28-200	28-200-10	Reinforced cement concrete work in leanest mix. 1:1.5:3, with 20mm down graded coarse aggregates and sand of FM>2.0 to FM<=2.5, to attain a minimum 28 day cylinder strength of 22.0 N/mm², including breaking, screening, grading, washing aggregates with clean water, mixing, laying in forms, consolidation to levels, curing, including supply of all materials, excluding cost of M.S. work for reinforcements and formworks etc. complete and as per direction of Engineer in charge. 28-200-10 : with stone chips	cum	256.781	12500.001	Twelve Thousand Five Hundred point Zero Zero One	3209762.757	Thirty-Two Lakh Nine Thousand Seven Hundred and Sixty-Two point Seven Five Seven
57	76-120	76-120-10	M.S. Work for reinforcement with deformed M.S. bar, fy=414 N/mm², (made from billet) in RCC works, including local handling, cutting, forging, bending, cleaning and fabrication with supply of deformed M.S. bar in different sizes and binding with 22 to 18 gages G.I. wire etc. complete including the cost of all materials as per direction of Engineer in charge. 76-120-10: 8mm dia to 30mm dia	kg	22780.624	81.001	Eighty-One point Zero Zero One	1845253.325	Eighteen Lakh Forty-Five Thousand Two Hundred and Fifty-Three point Three Two Five
			Formwork for centering and water tight shuttering as per drawing with 14 BWG M.S. sheet, fitted and fixed with 40mmx40mmx6mm M.S. angle						

58(a)	36-150	36-150-60	frame and 25mmx6mm F.I. bar stiffener, with necessary fabrication, welding, making the forms including fitting, fixing of steel forms with necessary ties, battens, struts, nuts & bolts, props etc. as per desired shape and size including levelling and removing the forms after specified period including the cost of all materials as per direction of Engineer in charge. 36-150-60: Footing, footing beams, grade beams, foundation slab with 60-80mm dia barrack bamboo props.	sqm	213.991	735.351	Seven Hundred and Thirty-Five point Three Five One	157358.496	One Lakh Fifty-Seven Thousand Three Hundred and Fifty-Eight point Four Nine Six
58(b)	36-150	36-150-10	Vertical and inclined walls, columns, piers with 60-80mm dia barrack bamboo props.	sqm	569.108	909.691	Nine Hundred and Nine point Six Nine One	517712.426	Five Lakh Seventeen Thousand Seven Hundred and Twelve point Four Two Six
59	16-520	16-520-20	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 labour using mallet/ vibro compactor) as per direction of Engineer in charge. 16-520-20 : sand of FM>=1.50	cum	84.220	921.991	Nine Hundred and Twenty-One point Nine Nine One	77650.082	Seventy-Seven Thousand Six Hundred and Fifty point Zero Eight Two
60(a)	40-610	40-610-20	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: Well graded between 40mm to 20mm size.	cum	26.366	3730.471	Three Thousand Seven Hundred and Thirty point Four Seven One	98357.598	Ninety-Eight Thousand Three Hundred and Fifty-Seven point Five Nine Eight
60(b)	40-610	40-610-30	Well graded between 20mm to 5mm size. (Combination of sub-item 10 & 30 or 20 & 30 shall be used)	cum	26.366	4076.091	Four Thousand AND Seventy-Six point Zero Nine One	107470.215	One Lakh Seven Thousand Four Hundred and Seventy point Two One Five
61(a)	40-	40-140-	Manufacturing and supplying C.C. blocks in leanest mix. 1:3:6, with cement, sand (FM>=1.5) and Stone Chips (40mm down graded), to attain a minimum 28 days cylinder strength of 9.0 N/mm² including grading, washing stone chips, mixing, laying in forms, consolidation, curing for at	nos	6554.000	485.001	Four Hundred and Eighty-	3178696.554	Thirty-One Lakh Seventy-Eight Thousand Six

61(a)	140	140-50	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) 40-140-50 : block size 30cmx30cmx30cm.	nos	6554.000	485.001	Eighty-Five point Zero Zero One	3178696.554	Six Hundred and Ninety-Six point Five Five Four
61(b)	40-140	40-140-40	40-140-40 :block size 40cmx40cmx20cm	nos	2671.000	485.001	Four Hundred and Eighty-Five point Zero Zero One	1295437.671	Twelve Lakh Ninety-Five Thousand Four Hundred and Thirty-Seven point Six Seven One
62	40-220	40-220-10	Labour charge for protective works in laying CC blocks of different sizes including preparation of base, watering and ramming of base etc. complete as per direction of Engineer in charge. 40-220-10 : Within 200 m.	cum	305.145	1250.001	One Thousand Two Hundred and Fifty point Zero Zero One	381431.555	Three Lakh Eighty-One Thousand Four Hundred and Thirty-One point Five Five Five
63	40-	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)=>2x10E-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).Supplying and placing non-woven needle punched type geotextile fabric as filter materials of elongation at maximum force machine	sqm	486.220	158.661	One Hundred and Fifty-	77144.151	Seventy-Seven Thousand One Hundred

63	600	600-20	direction (MD) >=60% and <= 100 % , elongation at maximum force (CMD) => 40% and <= 100% ,horizontal and vertical permeability (under 2 kn/m² pressure)=>2x10E-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	486.220	158.661	Eight point Six Six One	77144.151	Hundred and Forty-Four point One Five One
64	16-140	16-140-10	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 exceeding 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 m to 3 m height	cum	11260.000	187.791	One Hundred and Eighty-Seven point Seven Nine One	2114526.660	Twenty-One Lakh Fourteen Thousand Five Hundred and Twenty-Six point Six Six
65	16-130	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	cum	7375.000	142.471	One Hundred and Forty-Two point Four Seven	1050723.625	Ten Lakh Fifty Thousand Seven Hundred and Twenty-

			jungles including cutting trees upto 200mm girth, dug bailing etc. complete as per direction of Engineer in charge.				Seven One		Three point Six Two Five
66	16-200	16-200	Extra rate for every additional lift of 1.00 meter part thereof beyond the initial lift of 1.5m (30 cm neglected) for all kinds of earth work. 1 no. lift	plt/cum	7375.000	10.991	Ten point Nine Nine One	81058.625	Eighty-One Thousand AND Fifty-Eight point Six Two Five
67	16-220	16-220	Earth work by manual labour with clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand) in construction of cross bundh/ ring bundh as per design and specification with all leads and lifts, throwing the earth in layers not exceeding 150mm in thickness, including breaking clods, rough dressing, clearing the jungle, removing stumps, dug bailing and 75mm cambering etc. complete as per direction of Engineer in charge.	cum	2859.198	142.421	One Hundred and Forty-Two point Four Two One	407209.838	Four Lakh Seven Thousand Two Hundred and Nine point Eight Three Eight
68	16-190	16-190	Extra rate for every additional lead of 15 m or part thereof beyond the initial lead of 30m up to a maximum of 19 leads (3m neglected) for all kinds of earth work 1 no lead	pld/cum	8034.398	14.571	Fourteen point Five Seven One	117069.213	One Lakh Seventeen Thousand AND Sixty-Nine point Two One Three
69	04-280	04-280-10	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: 150mm x 25mm	m	5.600	44.731	Forty-Four point Seven Three One	250.494	Two Hundred and Fifty point Four Nine Four
70	16-240	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, (minimun 15m apart from the bank) as per direction of Engineer in charge.	cum	3274.355	142.471	One Hundred and Forty-Two point Four Seven One	466500.631	Four Lakh Sixty-Six Thousand Five Hundred point Six Three One
71	16-540	16-540-20	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>=0.80	cum	796.561	757.751	Seven Hundred and Fifty-Seven point Seven Five One	603594.894	Six Lakh Three Thousand Five Hundred and Ninety-Four point Eight Nine Four
72	16-530	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	cum	677.150	159.491	One Hundred and Fifty-Nine point Four Nine	107999.331	One Lakh Seven Thousand Nine Hundred and Ninety-

			20% relative density by compactor or any other suitable method as per direction ofEngineer in charge.				Four Nine One		Nine point Three Three One
73	48-100	48-100	Fine dressing and close turfing of the slopes and the crest of embankment with 75mm thick, good quality durba or charkanta sods of size 200mm x 200mm, with all leads and lifts, including ramming, watering until the turf grows properly, maintaining etc. complete (measurment will be given on well grown grass only), as per direction of Engineer in charge.	sqm	1118.420	26.171	Twenty-Six point One Seven One	29270.170	Twenty-Nine Thousand Two Hundred and Seventy point One Seven
							Grand Total:	21122463.293	Two Crore Eleven Lakh Twenty-Two Thousand Four Hundred and Sixty-Three point Two Nine Three

This Bill Of Quantity -03-(Nabinpur khal causeway) is Electronically Signed by Mr. Md Ali on behalf of AKA-UCL (JV)

Ashim Singh-M/S Subroto Suttradhar-M/S Pritom Enterprise (JV)
(JVCA)

Bill Of Quantity -03-(Nabinpur khal causeway)

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)
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42	04-180	04-180	Site preparation by manually removing all miscellaneous objectional materials form entire site and removing soil upto 15cm depth including uprooting stumps, jungle clearing, levelling dressing etc. complete as per direction of	sqm	9000.000	27.721	Twenty-Seven point Seven Two One	249489.000	Two Lakh Forty-Nine Thousand Four Hundred and Eighty-

			complete as per direction of Engineer in charge.						Nine
43	12-100	12-100	Installation of pizeometer including supply of 40mm G.I. pipe, brass strainer, socket, labour, by wash boring, lowering, fixing the elevation and providing cover on the top of the well etc. complete as per direction of Engineer in charge.	each	6.000	2584.221	Two Thousand Five Hundred and Eighty-Four point Two Two One	15505.326	Fifteen Thousand Five Hundred and Five point Three Two Six
44	16-310	16-310-10	Earth work in excavation of foundation trenches in all kinds of soil as per layout plan of foundation excavation with all leads and lifts and placing the spoil earth for constructing the ring bundh/offerdam where necessary as per design and specification or disposing it to a safe distance including pushing, levelling, dressing, etc. complete as per direction of Engineer in charge. 16-310-10 : For moving spoil earth upto a distance of 100m from the centre of the pit	cum	3225.602	246.711	Two Hundred and Forty-Six point Seven One One	795791.495	Seven Lakh Ninety-Five Thousand Seven Hundred and Ninety-One point Four Nine Five
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49	12-300	12-300	Construction of sump well with dug holes of size 1.80 m x 2.0 m, laying in position the perforated empty diesel/petrol drum sheet of 1.00 m dia to a depth 1.5m having slot area of 1000 sq.cm/sqm, slot dia being 30mm each with supply of necessary shrouding materials comprising of 60% 40mm down graded khoa and 40% coarse sand of FM>=2.50 and placing those around and beneath the drum sheet having thickness of 40cm and 50cm respectively including necessary welding, fitting etc. complete as per direction of Engineer in charge.	each	10.000	17211.171	Seventeen Thousand Two Hundred and Eleven point One Seven One	172111.710	One Lakh Seventy-Two Thousand One Hundred and Eleven point Seven One
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51	72-180	72-180	Painting of steel sheet piles, 2 coats of bitumen paint, including preparation of surface with sand paper, iron brush etc. including the cost of all materials and labour etc. complete as per direction of Engineer in charge.	sqm	481.440	293.331	Two Hundred and Ninety-Three point Three Three One	141221.277	One Lakh Forty-One Thousand Two Hundred and Twenty-One point Two Seven Seven
52	44-310	44-310	Supplying and placing 20mm thick hessian cloth impregnated with bitumen in expansion joints or on top of sheet piles as per specification and direction of Engineer in charge.	sqm	45.900	461.811	Four Hundred and Sixty-One point Eight One One	21197.125	Twenty-One Thousand One Hundred and Ninety-Seven point One Two Five
53	44-220	44-220-10	Supplying and laying single layer polythene sheet in floor below cement concrete, RCC slab, on walls etc. complete in all respect as per direction of	sqm	343.776	31.221	Thirty-One point Two Two	10733.030	Ten Thousand Seven Hundred and Thirty

		10	Engineer in charge. 44-220-10: Weighing minimum 1.0 kg per 6.50 sqm				One		Thirty-Three point Zero Three
54	28-120	28-120-20	Cement concrete work in leanest mix. 1:3:6 with sand of FM>=1.5, in foundation or floor including breaking, screening, grading and washing aggregates with clear water, mixing, laying in position, consolidation to levels, curing, including supply of all materials, excluding the cost of formworks etc. complete as per direction of Engineer in charge. 28-120-20: With 25mm down graded stone chips.	cum	39.988	10954.481	Ten Thousand Nine Hundred and Fifty-Four point Four Eight One	438047.786	Four Lakh Thirty-Eight Thousand AND Forty-Seven point Seven Eight Six
55	28-100	28-100-20	Cement concrete work in leanest mix. 1:4:8, with sand of FM>=1.5, in foundation or floor, including breaking, screening, grading and washing aggregates with clear water, mixing, laying in position, consolidation to levels, curing, including supply of all materials, excluding the cost of formworks etc. complete as per direction of Engineer in charge. 28-100-20 : With 25mm down graded stone chips	cum	1.813	10601.191	Ten Thousand Six Hundred and One point One Nine One	19219.959	Nineteen Thousand Two Hundred and Nineteen point Nine Five Nine
56	28-200	28-200-10	Reinforced cement concrete work in leanest mix. 1:1.5:3, with 20mm down graded coarse aggregates and sand of FM>2.0 to FM<=2.5, to attain a minimum 28 day cylinder strength of 22.0 N/mm², including breaking, screening, grading, washing aggregates with clean water, mixing, laying in forms, consolidation to levels, curing, including supply of all materials, excluding cost of M.S. work for reinforcements and formworks etc. complete and as per direction of Engineer in charge. 28-200-10 : with stone chips	cum	256.781	11674.491	Eleven Thousand Six Hundred and Seventy-Four point Four Nine One	2997787.473	Twenty-Nine Lakh Ninety-Seven Thousand Seven Hundred and Eighty-Seven point Four Seven Three
57	76-120	76-120-10	M.S. Work for reinforcement with deformed M.S. bar, fy=414 N/mm², (made from billet) in RCC works, including local handling, cutting, forging, bending, cleaning and fabrication with supply of deformed M.S. bar in different sizes and binding with 22 to 18 gages G.I. wire etc. complete including the cost of all materials as per direction of Engineer in charge. 76-120-10: 8mm dia to 30mm dia	kg	22780.624	77.341	Seventy-Seven point Three Four One	1761876.241	Seventeen Lakh Sixty-One Thousand Eight Hundred and Seventy-Six point Two Four One
			Formwork for centering and water tight shuttering as per drawing with 14 BWG M.S. sheet, fitted and fixed with						

58(a)	36-150	36-150-60	40mmx40mmx6mm M.S. angle frame and 25mmx6mm F.I. bar stiffener, with necessary fabrication, welding, making the forms including fitting, fixing of steel forms with necessary ties, battens, struts, nuts & bolts, props etc. as per desired shape and size including levelling and removing the forms after specified period including the cost of all materials as per direction of Engineer in charge. 36-150-60: Footing, footing beams, grade beams, foundation slab with 60-80mm dia barrack bamboo props.	sqm	213.991	735.351	Seven Hundred and Thirty-Five point Three Five One	157358.496	One Lakh Fifty-Seven Thousand Three Hundred and Fifty-Eight point Four Nine Six
58(b)	36-150	36-150-10	Vertical and inclined walls, columns, piers with 60-80mm dia barrack bamboo props.	sqm	569.108	909.691	Nine Hundred and Nine point Six Nine One	517712.426	Five Lakh Seventeen Thousand Seven Hundred and Twelve point Four Two Six
59	16-520	16-520-20	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 labour using mallet/ vibro compactor) as per direction of Engineer in charge. 16-520-20 : sand of FM>=1.50	cum	84.220	1420.061	One Thousand Four Hundred and Twenty point Zero Six One	119597.537	One Lakh Nineteen Thousand Five Hundred and Ninety-Seven point Five Three Seven
60(a)	40-610	40-610-20	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: Well graded between 40mm to 20mm size.	cum	26.366	3730.471	Three Thousand Seven Hundred and Thirty point Four Seven One	98357.598	Ninety-Eight Thousand Three Hundred and Fifty-Seven point Five Nine Eight
60(b)	40-610	40-610-30	Well graded between 20mm to 5mm size. (Combination of sub-item 10 & 30 or 20 & 30 shall be used)	cum	26.366	4076.091	Four Thousand AND Seventy-Six point Zero Nine One	107470.215	One Lakh Seven Thousand Four Hundred and Seventy point Two One Five
		40-	Manufacturing and supplying C.C. blocks in leanest mix. 1:3:6, with cement, sand (FM>=1.5) and Stone Chips (40mm down graded), to attain a minimum 28 days cylinder strength of 9.0 N/mm² including grading, washing stone chips, mixing, laying in forms,				Three Hundred		Twenty Lakh Seventy-Seven

61(a)	40-140	40-140-50	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) 40-140-50 : block size 30cmx30cmx30cm.	nos	6554.000	317.011	and Seventeen point Zero One One	2077690.094	Thousand Six Hundred and Ninety point Zero Nine Four
61(b)	40-140	40-140-40	40-140-40 :block size 40cmx40cmx20cm	nos	2671.000	381.461	Three Hundred and Eighty-One point Four Six One	1018882.331	Ten Lakh Eighteen Thousand Eight Hundred and Eighty-Two point Three Three One
62	40-220	40-220-10	Labour charge for protective works in laying CC blocks of different sizes including preparation of base, watering and ramming of base etc. complete as per direction of Engineer in charge. 40-220-10 : Within 200 m.	cum	305.145	1145.881	One Thousand One Hundred and Forty-Five point Eight Eight One	349659.858	Three Lakh Forty-Nine Thousand Six Hundred and Fifty-Nine point Eight Five Eight
63	40-600	40-600-20	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)=>2x10E-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).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 <=	sqm	486.220	190.471	One Hundred and Ninety point Four Seven One	92610.810	Ninety-Two Thousand Six Hundred and Ten point Eight

			100% ,horizontal and vertical permeability (under 2 kn/m² pressure)=>2x10E-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.						One
64	16-140	16-140-10	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 exceeding 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 m to 3 m height	cum	11260.000	155.001	One Hundred and Fifty-Five point Zero Zero One	1745311.260	Seventeen Lakh Forty-Five Thousand Three Hundred and Eleven point Two Six
65	16-130	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	cum	7375.000	130.001	One Hundred and Thirty point Zero Zero One	958757.375	Nine Lakh Fifty-Eight Thousand Seven Hundred and Fifty-Seven point Three Seven Five

			of Engineer in charge.						Five
66	16-200	16-200	Extra rate for every additional lift of 1.00 meter part thereof beyond the initial lift of 1.5m (30 cm neglected) for all kinds of earth work. 1 no. lift	plt/cum	7375.000	10.991	Ten point Nine Nine One	81058.625	Eighty-One Thousand AND Fifty-Eight point Six Two Five
67	16-220	16-220	Earth work by manual labour with clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand) in construction of cross bundh/ ring bundh as per design and specification with all leads and lifts, throwing the earth in layers not exceeding 150mm in thickness, including breaking clods, rough dressing, clearing the jungle, removing stumps, dug bailing and 75mm cambering etc. complete as per direction of Engineer in charge.	cum	2859.198	142.421	One Hundred and Forty-Two point Four Two One	407209.838	Four Lakh Seven Thousand Two Hundred and Nine point Eight Three Eight
68	16-190	16-190	Extra rate for every additional lead of 15 m or part thereof beyond the initial lead of 30m up to a maximum of 19 leads (3m neglected) for all kinds of earth work 1 no lead	pld/cum	8034.398	14.571	Fourteen point Five Seven One	117069.213	One Lakh Seventeen Thousand AND Sixty-Nine point Two One Three
69	04-280	04-280-10	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: 150mm x 25mm	m	5.600	77.731	Seventy-Seven point Seven Three One	435.294	Four Hundred and Thirty-Five point Two Nine Four
70	16-240	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, (minimun 15m apart from the bank) as per direction of Engineer in charge.	cum	3274.355	142.471	One Hundred and Forty-Two point Four Seven One	466500.631	Four Lakh Sixty-Six Thousand Five Hundred point Six Three One
71	16-540	16-540-20	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>=0.80	cum	796.561	600.001	Six Hundred point Zero Zero One	477937.397	Four Lakh Seventy-Seven Thousand Nine Hundred and Thirty-Seven point Three Nine Seven
72	16-530	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	cum	677.150	159.491	One Hundred and Fifty-Nine point Four Nine One	107999.331	One Lakh Seven Thousand Nine Hundred and Ninety-Nine point

			compactor or any other suitable method as per direction ofEngineer in charge.				One		Three Three One
73	48-100	48-100	Fine dressing and close turfing of the slopes and the crest of embankment with 75mm thick, good quality durba or charkanta sods of size 200mm x 200mm, with all leads and lifts, including ramming, watering until the turf grows properly, maintaining etc. complete (measurment will be given on well grown grass only), as per direction of Engineer in charge.	sqm	1118.420	26.171	Twenty-Six point One Seven One	29270.170	Twenty-Nine Thousand Two Hundred and Seventy point One Seven
							Grand Total:	18782361.903	One Crore Eighty-Seven Lakh Eighty-Two Thousand Three Hundred and Sixty-One point Nine Zero Three

This Bill Of Quantity -03-(Nabinpur khal causeway) is Electronically Signed by Mr. Ashim on behalf of Ashim Singh-M/S Subroto Suttradhar-M/S Pritom Enterprise (JV)

M/S. BHAWAL CONSTRUCTION

Bill Of Quantity -03-(Nabinpur khal causeway)

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)
41	04-120	04-120	Construction of B.M. Pillars at site with first class bricks in cement mortar (1:4) of size 38cm x 38cm x 75cm on cement concrete (1:2:4) base of size 50cm x 50cm x 7.5cm with 12mm thick cement plastering (1:2) on exposed surfaces of pillar and cement morter on top (1:2), with inscription of "BWDB" with 25cm of the pillar balow ground level etc. complete including ramming the backfill and the cost of all materials as per direction of Engineer in charge.	each	5.000	1203.771	One Thousand Two Hundred and Three point Seven Seven One	6018.855	Six Thousand AND Eighteen point Eight Five Five
42	04-180	04-180	Site preparation by manually removing all miscellaneous objectional materials form entire site and removing soil upto 15cm depth including uprooting stumps, jungle clearing, levelling dressing etc. complete as per direction of Engineer in charge.	sqm	9000.000	27.721	Twenty-Seven point Seven Two One	249489.000	Two Lakh Forty-Nine Thousand Four Hundred and Eighty-Nine
			Installation of pizeometer				Two		Fifteen

43	12-100	12-100	including supply of 40mm G.I. pipe, brass strainer, socket, labour, by wash boring, lowering, fixing the elevation and providing cover on the top of the well etc. complete as per direction of Engineer in charge.	each	6.000	2584.221	Thousand Five Hundred and Eighty-Four point Two Two One	15505.326	Fifteen Thousand Five Hundred and Five point Three Two Six
44	16-310	16-310-10	Earth work in excavation of foundation trenches in all kinds of soil as per layout plan of foundation excavation with all leads and lifts and placing the spoil earth for constructing the ring bundh/offerdam where necessary as per design and specification or disposing it to a safe distance including pushing, levelling, dressing, etc. complete as per direction of Engineer in charge. 16-310-10 : For moving spoil earth upto a distance of 100m from the centre of the pit	cum	3225.602	246.711	Two Hundred and Forty-Six point Seven One One	795791.495	Seven Lakh Ninety-Five Thousand Seven Hundred and Ninety-One point Four Nine Five
45	16-560	16-560-20	Shoring for slope protection of foundation trench, canal, embankment, road, pond etc. as per design slopes, grades including removal of spoils to a safe distance as per direction of Engineer in charge. 16-560-20: By bamboo post of 6.0m length, c/c fixed with nails.	sqm	341.600	837.151	Eight Hundred and Thirty-Seven point One Five One	285970.782	Two Lakh Eighty-Five Thousand Nine Hundred and Seventy point Seven Eight Two
46	12-310	12-310-20	Bailing out of water with all leads and lifts by manual labour or pump, with all arrengements for protection of ring bund and side slopes of foundation pit against erosion or washout etc. complete actual volume of work will be measured by sounding method before starting the work) as per direction of Engineer in charge. 12-310-20 : By pump.	cum	50971.286	6.131	Six point One Three One	312504.954	Three Lakh Twelve Thousand Five Hundred and Four point Nine Five Four
47	44-240	44-240-30	Supplying at site U-shape hot rolled steel sheet pile of different section of Phosphorus=0.04%(Maximum), Sulphur = 0.04% (Maximum), Copper= 0.25% (Minimum), Tensile strength=> 490 N/mm2 , Yield strength =>296 N/mm2, Elongation =15% (Minimum) including all taxes, freights, incidental charges etc. complete as per direction of the Engineer -in- charge. 44-240-30 : U-shape, hot-rolled steel sheet pile width= 400mm to 600mm: height=> 100mm, Th.= > 10.5: wt. per sqm of pile wall =>120 kg/m2: sectional modulus per one meter of pile wall width => 874 cm3/m	Mton	16.992	145120.531	One Lakh Forty-Five Thousand One Hundred and Twenty point Five Three One	2465888.063	Twenty-Four Lakh Sixty-Five Thousand Eight Hundred and Eighty-Eight point Zero Six Three
			Cutting of steel sheet piles to						Three Thousand One

48	44-320	44-320-10	design length and shape as per requirement in design and drawing and as per direction of Engineer in charge. 44-320-10 : Upto 10mm thick.	m	80.240	39.161	Thirty-Nine point One Six One	3142.279	One Hundred and Forty-Two point Two Seven Nine
49	12-300	12-300	Construction of sump well with dug holes of size 1.80 m x 2.0 m, laying in position the perforated empty diesel/petrol drum sheet of 1.00 m dia to a depth 1.5m having slot area of 1000 sq.cm/sqm, slot dia being 30mm each with supply of necessary shrouding materials comprising of 60% 40mm down graded khoa and 40% coarse sand of FM>=2.50 and placing those around and beneath the drum sheet having thickness of 40cm and 50cm respectively including necessary welding, fitting etc. complete as per direction of Engineer in charge.	each	10.000	17211.171	Seventeen Thousand Two Hundred and Eleven point One Seven One	172111.710	One Lakh Seventy-Two Thousand One Hundred and Eleven point Seven One
50	44-270	44-270-20	Driving steel sheet piles of various sections and weights of any type of soil, by monkey hammer including handling and placing in position, staging and supplying of all equipments like monkey hammer, pully, rope, bamboo, bullah etc. including correcting leaning beyond tolerance & other defects and any other incidental cost etc. complete (measurement will be taken on projected width x height) as per direction of Engineer in charge. 44-270-20: U-type or any other type : Upto 4.50 m depth.	sqm	123.900	1250.751	One Thousand Two Hundred and Fifty point Seven Five One	154968.049	One Lakh Fifty-Four Thousand Nine Hundred and Sixty-Eight point Zero Four Nine
51	72-180	72-180	Painting of steel sheet piles, 2 coats of bitumen paint, including preparation of surface with sand paper, iron brush etc. including the cost of all materials and labour etc. complete as per direction of Engineer in charge.	sqm	481.440	293.331	Two Hundred and Ninety-Three point Three Three One	141221.277	One Lakh Forty-One Thousand Two Hundred and Twenty-One point Two Seven Seven
52	44-310	44-310	Supplying and placing 20mm thick hessian cloth impregnated with bitumen in expansion joints or on top of sheet piles as per specification and direction of Engineer in charge.	sqm	45.900	461.801	Four Hundred and Sixty-One point Eight Zero One	21196.666	Twenty-One Thousand One Hundred and Ninety-Six point Six Six Six
53	44-220	44-220-10	Supplying and laying single layer polythene sheet in floor below cement concrete, RCC slab, on walls etc. complete in all respect as per direction of Engineer in charge. 44-220-10: Weighing minimum 1.0 kg per 6.50 sqm	sqm	343.776	31.221	Thirty-One point Two Two One	10733.030	Ten Thousand Seven Hundred and Thirty-Three point Zero Three

54	28-120	28-120-20	Cement concrete work in leanest mix. 1:3:6 with sand of FM>=1.5, in foundation or floor including breaking, screening, grading and washing aggregates with clear water, mixing, laying in position, consolidation to levels, curing, including supply of all materials, excluding the cost of formworks etc. complete as per direction of Engineer in charge. 28-120-20: With 25mm down graded stone chips.	cum	39.988	10954.481	Ten Thousand Nine Hundred and Fifty-Four point Four Eight One	438047.786	Four Lakh Thirty-Eight Thousand AND Forty-Seven point Seven Eight Six
55	28-100	28-100-20	Cement concrete work in leanest mix. 1:4:8, with sand of FM>=1.5, in foundation or floor, including breaking, screening, grading and washing aggregates with clear water, mixing, laying in position, consolidation to levels, curing, including supply of all materials, excluding the cost of formworks etc. complete as per direction of Engineer in charge. 28-100-20 : With 25mm down graded stone chips	cum	1.813	10601.191	Ten Thousand Six Hundred and One point One Nine One	19219.959	Nineteen Thousand Two Hundred and Nineteen point Nine Five Nine
56	28-200	28-200-10	Reinforced cement concrete work in leanest mix. 1:1.5:3, with 20mm down graded coarse aggregates and sand of FM>2.0 to FM<=2.5, to attain a minimum 28 day cylinder strength of 22.0 N/mm², including breaking, screening, grading, washing aggregates with clean water, mixing, laying in forms, consolidation to levels, curing, including supply of all materials, excluding cost of M.S. work for reinforcements and formworks etc. complete and as per direction of Engineer in charge. 28-200-10 : with stone chips	cum	256.781	11674.491	Eleven Thousand Six Hundred and Seventy-Four point Four Nine One	2997787.473	Twenty-Nine Lakh Ninety-Seven Thousand Seven Hundred and Eighty-Seven point Four Seven Three
57	76-120	76-120-10	M.S. Work for reinforcement with deformed M.S. bar, fy=414 N/mm², (made from billet) in RCC works, including local handling, cutting, forging, bending, cleaning and fabrication with supply of deformed M.S. bar in different sizes and binding with 22 to 18 gages G.I. wire etc. complete including the cost of all materials as per direction of Engineer in charge. 76-120-10: 8mm dia to 30mm dia	kg	22780.624	77.341	Seventy-Seven point Three Four One	1761876.241	Seventeen Lakh Sixty-One Thousand Eight Hundred and Seventy-Six point Two Four One
			Formwork for centering and water tight shuttering as per drawing with 14 BWG M.S. sheet, fitted and fixed with 40mmx40mmx6mm M.S. angle frame and 25mmx6mm F.I. bar stiffener, with necessary fabrication, welding, making the				Seven		One Lakh Fifty-

58(a)	36-150	36-150-60	forms including fitting, fixing of steel forms with necessary ties, battens, struts, nuts & bolts, props etc. as per desired shape and size including levelling and removing the forms after specified period including the cost of all materials as per direction of Engineer in charge. 36-150-60: Footing, footing beams, grade beams, foundation slab with 60-80mm dia barrack bamboo props.	sqm	213.991	735.351	Seven Hundred and Thirty-Five point Three Five One	157358.496	Seven Thousand Three Hundred and Fifty-Eight point Four Nine Six
58(b)	36-150	36-150-10	Vertical and inclined walls, columns, piers with 60-80mm dia barrack bamboo props.	sqm	569.108	909.691	Nine Hundred and Nine point Six Nine One	517712.426	Five Lakh Seventeen Thousand Seven Hundred and Twelve point Four Two Six
59	16-520	16-520-20	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 labour using mallet/ vibro compactor) as per direction of Engineer in charge. 16-520-20 : sand of FM>=1.50	cum	84.220	1420.061	One Thousand Four Hundred and Twenty point Zero Six One	119597.537	One Lakh Nineteen Thousand Five Hundred and Ninety-Seven point Five Three Seven
60(a)	40-610	40-610-20	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: Well graded between 40mm to 20mm size.	cum	26.366	3730.471	Three Thousand Seven Hundred and Thirty point Four Seven One	98357.598	Ninety-Eight Thousand Three Hundred and Fifty-Seven point Five Nine Eight
60(b)	40-610	40-610-30	Well graded between 20mm to 5mm size. (Combination of sub-item 10 & 30 or 20 & 30 shall be used)	cum	26.366	4076.091	Four Thousand AND Seventy-Six point Zero Nine One	107470.215	One Lakh Seven Thousand Four Hundred and Seventy point Two One Five
61(a)	40-140	40-140-50	Manufacturing and supplying C.C. blocks in leanest mix. 1:3:6, with cement, sand (FM>=1.5) and Stone Chips (40mm down graded), to attain a minimum 28 days cylinder strength of 9.0 N/mm² including grading, washing stone chips, mixing, laying in forms, consolidation, curing for at least 21 days, including preparation of platform, shuttering and stacking in	nos	6554.000	317.011	Three Hundred and Seventeen point Zero One One	2077690.094	Twenty Lakh Seventy-Seven Thousand Six Hundred and Ninety

			measurable stacks etc complete including supply of all materials (steel shutter to be used) as per direction of Engineer in charge. (a) 40-140-50 : block size 30cmx30cmx30cm.						point Zero Nine Four
61(b)	40-140	40-140-40	40-140-40 :block size 40cmx40cmx20cm	nos	2671.000	381.461	Three Hundred and Eighty-One point Four Six One	1018882.331	Ten Lakh Eighteen Thousand Eight Hundred and Eighty-Two point Three Three One
62	40-220	40-220-10	Labour charge for protective works in laying CC blocks of different sizes including preparation of base, watering and ramming of base etc. complete as per direction of Engineer in charge. 40-220-10 : Within 200 m.	cum	305.145	1145.881	One Thousand One Hundred and Forty-Five point Eight Eight One	349659.858	Three Lakh Forty-Nine Thousand Six Hundred and Fifty-Nine point Eight Five Eight
63	40-600	40-600-20	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)=>2x10E-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).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)=>2x10E-3 m/sec. for effective erosion protection in	sqm	486.220	190.471	One Hundred and Ninety point Four Seven One	92610.810	Ninety-Two Thousand Six Hundred and Ten point Eight One

			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.						
64	16-140	16-140-10	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 exceeding 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 m to 3 m height	cum	11260.000	187.791	One Hundred and Eighty-Seven point Seven Nine One	2114526.660	Twenty-One Lakh Fourteen Thousand Five Hundred and Twenty-Six point Six Six
65	16-130	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.	cum	7375.000	142.471	One Hundred and Forty-Two point Four Seven One	1050723.625	Ten Lakh Fifty Thousand Seven Hundred and Twenty-Three point Six Two Five
	16	16	Extra rate for every additional lift of 1.00 meter part thereof				Ten point		Eighty-One Thousand

66	16-200	16-200	beyond the initial lift of 1.5m (30 cm neglected) for all kinds of earth work. 1 no. lift	plt/cum	7375.000	10.991	Nine Nine One	81058.625	AND Fifty-Eight point Six Two Five
67	16-220	16-220	Earth work by manual labour with clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand) in construction of cross bundh/ ring bundh as per design and specification with all leads and lifts, throwing the earth in layers not exceeding 150mm in thickness, including breaking clods, rough dressing, clearing the jungle, removing stumps, dug bailing and 75mm cambering etc. complete as per direction of Engineer in charge.	cum	2859.198	142.421	One Hundred and Forty-Two point Four Two One	407209.838	Four Lakh Seven Thousand Two Hundred and Nine point Eight Three Eight
68	16-190	16-190	Extra rate for every additional lead of 15 m or part thereof beyond the initial lead of 30m up to a maximum of 19 leads (3m neglected) for all kinds of earth work 1 no lead	pld/cum	8034.398	14.571	Fourteen point Five Seven One	117069.213	One Lakh Seventeen Thousand AND Sixty-Nine point Two One Three
69	04-280	04-280-10	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: 150mm x 25mm	m	5.600	77.731	Seventy-Seven point Seven Three One	435.294	Four Hundred and Thirty-Five point Two Nine Four
70	16-240	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, (minimun 15m apart from the bank) as per direction of Engineer in charge.	cum	3274.355	142.471	One Hundred and Forty-Two point Four Seven One	466500.631	Four Lakh Sixty-Six Thousand Five Hundred point Six Three One
71	16-540	16-540-20	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>=0.80	cum	796.561	757.751	Seven Hundred and Fifty-Seven point Seven Five One	603594.894	Six Lakh Three Thousand Five Hundred and Ninety-Four point Eight Nine Four
72	16-530	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 ofEngineer in charge.	cum	677.150	159.491	One Hundred and Fifty-Nine point Four Nine One	107999.331	One Lakh Seven Thousand Nine Hundred and Ninety-Nine point Three Three One
			Fine dressing and close turfing of the slopes and the crest of embankment with 75mm thick,						Twenty-

73	48-100	48-100	good quality durba or charkanta sods of size 200mm x 200mm, with all leads and lifts, including ramming, watering until the turf grows properly, maintaining etc. complete (measurment will be given on well grown grass only), as per direction of Engineer in charge.	sqm	1118.420	26.171	Twenty-Six point One Seven One	29270.170	Nine Thousand Two Hundred and Seventy point One Seven
							Grand Total:	19369200.591	One Crore Ninety-Three Lakh Sixty-Nine Thousand Two Hundred point Five Nine One

This Bill Of Quantity -03-(Nabinpur khal causeway) is Electronically Signed by Mr. FAKHAR UDDIN AHMED on behalf of M/S. BHAWAL CONSTRUCTION