|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Abstract cost of estimate for the construction of Mahindra Khal Regulator (4V-1.5 x 1.80m ) at km 12.18 & Drainage khal of Nunnir Haor A) Katakhali Khal from km 0.00 to km 3.800 B) Samar bari khal form km. 0.100 to km 3.990 C) Mahinhandra khal from km 1.00 to km 1.90 D) Kata khal from km 0.100 to km 0.600 E) Kurigai Gang from km 0.00 to km 7.350 F) Beri Gang from km 0.00 to km 3.56 Total length = 20.00 km of Nunnir Haor Sub-Project,Part -A, in C/W Haor flood Management and Livelihood Improvement project Under Kishoreganj W.D Division, BWDB, Kishoreganj during the Financial year 2016-17& 2017-18 .Package No. BWDB/Kish/HFMLIP/PW-06.** | | | | | |
| **Item no & Code** | **Item Description** | **Qnty** | **Unit** | **Unit Rate (Tk)** | **Amount (Tk)** |
| 1/  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. | 4.00 | each | 1203.77 | 4815.08 |
| 2/  04-180 | Site preparation by manually removing all miscellaneous objectionable materials form entire site and removing soil up to 15cm depth including uprooting stumps, jungle clearing, leveling dressing etc. complete as per direction of Engineer in charge. | 9000.00 | sqm | 27.72 | 249480.00 |
| 3/  NSI | Mobilization with construction of inspection Facilities | 1.00 | L.S | 600000.00 | 600000.00 |
| 4/  04-620-20 | Filling of expansion joints upto a depth of 40 mm with bitumen mixed with coarse sand (FM>=2.5) in concrete works including supply of all materials etc. complete as per specification and direction of Engineer in charge. 04-620-20: 20 mm wide. | 37.62 | m | 69.54 | 2616.37 |
| 5/  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. | 6.00 | each | 2584.22 | 15505.32 |
| 6/  16-150 | Earth work in excavation of foundation trenches in all kinds of soils including levelling, dressing, placing, removal of spoils to a safe distance with initial lead of 30m and lift of 1.5m as per direction of Engineer in charge. | 10519.412 | cum | 172.85 | 1818280.36 |
| 7/  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. By bamboo post of 6.0m length, c/c fixed with nails. | 243.00 | Cum | 837.15 | 203427.45 |
| 8/  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.by pump. | 64087.20 | cum | 6.13 | 392854.54 |
| 9/  44-240 | 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. 44-240-10 . U- Shape, hot rolled steel sheet pile: width=400 to 600 mm: height=>85mm, Th.=>8.0mm, wt per sqm. of pile wall=> 88.0 kg/m2 , Section modulus per one meter of pile width => 529 cm3/m | 22.704 | M ton | 145120.53 | 3294816.51 |
| 10/  44-320-10 | Cutting of steel sheet piles to design and length and shape as per requirement in design and drawing and as per direction of Engineer in charge. Upto 10mm thick. | 84.50 | m | 39.16 | 3309.02 |
| 11/  44-330 | Jointing steel sheet piles of different thickness by welding to increase the length of pile as per requirment including necessary modification of the ends to receive the weld, supply of welding materials, equipments and other accessories as per specification and direction of Engineer in charge. | 13.00 | m | 845.40 | 10990.20 |
| 12/  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 efects and any other incidental cost etc. complete (measurement will be taken on projected width x height) as per direction of Engineer in charge. U-type or any other type : Upto 4.50m depth. | 258.00 | Sqm | 1250.75 | 322693.50 |
| 13/  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. | 422.50 | Sqm | 293.330 | 123931.93 |
| 14/  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. | 95.79 | Sqm | 461.80 | 44235.82 |
| 15/  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. Weighing minimum 1.0kg per 6.50 sqm. | 567.52 | Sqm | 31.22 | 17717.97 |
| 16/  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. With 25mm downgraded stone chips. | 60.11 | Cum | 10954.48 | 658495.70 |
| 17/  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 and washing aggregates with clear 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. With stone chips. | 442.415 | Cum | 11674.49 | 5164969.49 |
| 18/  76-120-10 | M.S. Work for reinforcement with twisted 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 twisted 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. 8mm dia to 30mm dia. | 30030.967 | kg | 77.34 | 2322594.99 |
| 19/  76-115-10 | M.S Work for reinforcement with Standard deformed bar fy=276 N/mm^2 in RCC works including local handling,cutting,forging,bending,cleaning and fabrication with supply of deformed M.S. bar in different sizes and bending with 22 to 18 gages G.I. wire etc. complete including the cost of all materials as per direction of Engineer in charge. | 35.00 | kg | 74.37 | 2602.95 |
| 20/  36-150 | Formwork for centering and water tight shuttering as per drawing with 14 BWG M.S. sheet, fitted and fixed with 0mmx40mmx6mm 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 leveling and removing the forms after specified period including the cost of all materials as per direction of Engineer in charge. |  |  |  |  |
| a) 36-150-60 | 36-150-60 . Footing, footing beams, grade beams, foundation slab with 60-80mm dia barrack bamboo props. | 270.239 | sqm | 735.35 | 198720.25 |
| b) 36-150-10 | 36-150-10 . Vertical and inclined walls, columns, piers with 60-80mm dia barrack bamboo props. | 705.036 | Sqm | 909.69 | 641364.20 |
| c) 36-150-20 | 36-150-20 . Deck slab, operating deck slab, top slab of barrel upto 3.5m height with 60-80mm dia barrack bamboo props. | 112.49 | Sqm | 921.99 | 103714.66 |
| 21/  76-630-10 | Supply and fitting and fixing 23cm wide P.V.C water stops having minimum strength of 13.80N/mm2 at 225% elongation and of approved quality in antraction and expansion joints with necessary arrangements for modification in shuttering and keeping the water stop in position etc. complete as per design, specification and direction of Engineer in charge. 3 bulb type. | 32.40 | m | 1133.75 | 36733.50 |
| 22/  56-430 | Filling up the expansion joints by asphalt, sand and jute waste etc. complete including supply of all materials and as per direction of Engineer in charge. | 9.13 | m | 165.95 | 1515.12 |
| 23/  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 laqbour using mallet/vibro compactor) as per direction of Engineer in charge. sand of FM>= 1.50 | 341.454 | cum | 1402.06 | 478739.00 |
| 24/  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. Well graded between 20mm to 5mm size. (Combination of sub-item 10 and 30 or 20 and 30 shall be used) | 256.98 | Cum | 3730.47 | 958656.18 |
| 40-610-30 | Well graded between 20mm to 5mm size. (Combination of sub-item 10 & 30 or 20 & 30 shall be used) | 256.98 |  | 4076.090 | 1047473.61 |
| 25/  40-140-50 | Manufacturing and supplying C.C. blocks in leanest mix. 1:2:4 with cement, sand (FM>=1.5) and Stone Chips (40mm down graded) to attain a 28 days cylinder strength of 15 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 measurable stacks etc. complete including supply of all materials (steel shutter to be used) as per direction of Engineer in charge. block size 30cmx30cmx30cm | 10291.00 |  | 317.01 | 3262349.91 |
| 26/  40-220-10 | 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. Within 200m | 277.857 | Cum | 1145.88 | 318390.78 |
| 27/  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. | 3384.380 | kg | 144.42 | 488772.16 |
| 28/  80-230-40 | 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.. | 7.50 | each | 232.93 | 1746.98 |
| 29/  76-240-40 | Manufacturing & Supplying of M.S. Vertical Lift Gate shutter of 8mm thick M.S. skin plate and stiffener with minimum75mm x 75mm x 10mm M.S. angle as frame, horizontal & vertical beam,t with proper thread, nut, cotter pin and washer as per approved design including the cost of all materials of proper grade & brand new with a prime coat of redoxide where necessary as per specification and direction of Engineer in charge. Size 1.95m x 1.65m | 4.00 | each | 96799.63 | 387198.52 |
| 30/  76-260-20 | 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. Size 1.95m x 1.35m or 1.95m x 1.65m | 4.00 | each | 9991.91 | 39967.64 |
| 31/  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. | 4.00 | each | 84135.85 | 336543.40 |
| 32/  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 up to 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. | 1660.00 | each | 187.79 | 311731.40 |
| 33/  16-130 | Earth work by manual labour in all kinds of soil in excavation or re excavation 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. | 15258.84 | each | 142.47 | 2173926.51 |
| 34/  16-200 | Extra rate for every additional lift of 1.0m or part thereof beyond the initial lift of 1.5m (30cm neglected) for all kinds of earth work. | 7629.419 | Pltcum | 10.990 | 83847.31 |
| 35/  16-220 | 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. | 851.801 | Cum | 142.42 | 121313.50 |
| 36/  04-280-10 | Constructing at site, cement mortar gauge on masonry wall, includingengraving in meter, decimeter & centimeter, painting and figuring with black and red water proof paint, etc. complete as per direction of Engineer in charge. | 8.00 | m | 77.73 | 621.84 |
| 37/  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. | 681.44 | Cum | 142.47 | 97084.90 |
| 38/  16-540-20 | Back filling in hydraulic structures including all leads and lifts in 150mmlayer including watering, ramming, compacting to 30% relative density etc. complete by compactor or any other suitable method as per direction of Engineer in charge. | 1937.490 | Cum | 757.750 | 1468133.05 |
| 39/  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 method as per direction of Engineer in charge. | 6535.510 | Cum | 159.49 | 1042348.49 |
| 40/  68-130 | Supplying pressure treated wooden fall boards/stop logs of different sizes (not less than 15cm in depth) of sal, sundari, garjan, shishu or equivalent for regulator/ sluices, including fixing in position with eye hook etc. complete as per direction of Engineer in charge. | 5.25 | Cum | 60966.400 | 320073.60 |
| 41/  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 x200mm, with all leads and lifts, including ramming, watering until the turf grows properly, maintaining etc. complete (measurement will be given on well grown grass only). as per direction of Engineer in charge. | 1200.00 | Sqm | 26.17 | 31404.00 |
| 42/  NSI | part time employment of environmental inspector for Implementation and reporting on environmental management plan provision for first aid Box and medical assistant as per specification and direction of engineer in-charge. | 1.00 | LS | 200000.0 | 200000.00 |
|  | **Sub Total regulator** |  |  |  | **29405707.70** |
|  | **Re-excavation of Khal** |  |  |  |  |
| 43/  16-100 | Erecting of bamboo profile with full bamboo posts and pegs not les than 60 mm in diameter and coir strings etc. complete as per direction of Engineer in charge. | 640.00 | Each | 290.48 | 185907.20 |
| 44/  16-220 | Earth work by manual labor in all kinds of soil in construction of cross bundh/ ring bundh as per design and specification with all leads and lifts, throwing the earth in layers not exceeding 150 mm in thickness including breaking clods, rough dressing, clearing the jungle, removing stumps, dug bailing and 75 mm cambering etc. complete as per direction of Engineer in charge | 13069.69 | Cum | 142.42 | 1861384.82 |
| 45/  12-310 | Bailing out of water with all leads and lifts by manual labour or pump, with all arrangements 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 | 332771.88 | cum | 6.13 | 2039891.59 |
| 46/  16-600-10 | Earth work by Mechanical Excavator (long Boom) in all kinds of soil in excavation/ re-excavation of channel/canal/khal etc. including disposal of spoil soil up to 30m away from point of excavation with rough dressing and leveling etc. complete as per direction of Engineer- in- charge. | 433280.265 | Cum | 96.97 | 42015187.30 |
| 47/  16-130 | Earth work by manual labour in all kinds of soil in excavation of channels with the initial lead of 30m and lift of 1.5 m including leveling dressing and throwing the spoils to profile with breaking clods, rough dressing, clearing jungles including cutting trees up to 200 mm girth, dug bailing etc. complete as per direction of Engineer in charge. | 144426.755 | cum | 142.47 | 20576479.78 |
| 48/  16-240 | Earth work by manual labor in all kinds of soil in removing 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 | 10455.749 | cum | 142.47 | 1489630.56 |
| 49/  16-190 | Extra rate for every additional lead of 15m or part thereof beyond the initial lead of 30m up to a maximum of 19 leads (3m neglected) for all kinds of earth work. Lead= 1 no | 144426.785 | cum | 14.57 | 2104298.26 |
| 50/  NSI | Video documents for every sequence of work for every Item all Through Package | 1.00 | L.S | 100000 | 100000.00 |
|  | **Sub Total Khal =** |  |  | **Total Tk =** | **70372779.52** |
|  | **Gross Total Regulator + Khal** |  |  |  | **9,97,78487.217** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  | **(MD.Alauddin)** | |
|  |  |  |  | **Sectional officer** | |
|  |  |  |  | **Bhairab WD Section -01** | |
|  |  |  |  | **BWDB,Kishoregonj** | |
|  |  |  |  |  |  |
| The estimate has been prepared on the basis of the approved design/drawing & examined on the basis of mymensing O&M circke schedule of rates effective for the year 2016-2017.The items provided are fully appropriate & essentially required. The varified edtimated amonting of tk.9,97,78,487.217 (Taka nine crore ninety seven lac seventy eight thousand four hundred eighty seven & poisa two one seven) only is recommended for sanction. | | | | | |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | **(Mohammad Aktaruzzaman)** | | |
|  |  |  | **Sub- Divisional Engineer** | | |
|  |  |  | **Bhairab WD Sub division** | | |
|  |  |  | **BWDB. Kishoregonj** | | |
| The estimate has been verified carefully verified amount of tk .9,97,78,487.217 (Taka Nine crore ninety seven lac seventy eight thousand four hundred eighty seven & paisa two one seven) ) only is recommended for sanction. | | | | | |
|  |  |  |  |  |  |
|  |  |  | **(Md.Shafiqul islam)** | | |
|  |  |  | **Executive Engineer)** | | |
|  |  |  | **Kishoregonj WD Division** | | |
|  |  |  | **BWDB. Kishoregonj.** | | |