Schedule of Rates

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
Chapter -	1 : General, Site Facilities and Safety						
1.01	Erection and maintenance of semi permanent site office and removal of the same after completion of work in accordance with the conditions of contract. In addition to the office required for own use, the contractor shall provide and maintain furnished site office for the use of Engineer-in-charge and his staff. The site office must have tiles floor, adequate foundation, brick walls, false ceiling of gypsum board and all windows are to be glazed, shuttered and provided with steel grill. Outside and inside wall surface are to be painted on plaster acceptable to the Engineer-in-charge. The site office shall be maintained in a secure condition by the contractor until the completion of the contract and shall be provided with electricity, water supply, wash rooms and sewerage facilities. All doors shall be fitted with approved locks and windows shall be provided with screen/blinds. Before construction the contractor shall submit plans and drawings showing proposed details and location for the site office, including foundations, access roads, shades, layout of electrical and water supply and hard standings there for the approval of Engineer-in-charge. The Engineer-in-charge may require revision of the plans prior to giving approval for construction. The contractor shall also submit detailed proposed furniture, fittings and other items of equipment and plant to the Engineer-in-charge for approval. These items shall be of the standard quality suitable for site. The office, complete with furnishings, fittings, access roads and hard standings shall be ready for occupation by the Engineer-in-charge within 28 days of the date when the contractor first occupies the site. The contractor shall provide day and night guards and an attendant for the field office. At the end of the contract all materials, equipment and plant, furniture, fittings recovered from dismantling the office and removing access road will be the property of the contractor. No interim payment shall be certified unless engineer's office with required facilitie	job					
1.01.01	Engineer's site office of minimum 10 sqm plinth area with providing necessary facilities including office furniture, consumables, stationeries etc.[PWD 01.1.1]	job	50,308.00	50,308.00	50,308.00	50,308.00	
1.01.02	Engineer's site office of minimum 15 sqm plinth area with providing necessary facilities including office furniture, consumables, stationeries, water purifier etc.[PWD 01.1.2]	job	80,370.00	80,370.00	80,370.00	80,370.00	
1.01.03	Engineer's site office of minimum 38 sqm plinth area with providing necessary facilities including office furniture, 24000 BTU air cooler, umbrella, crookeries, water purifier, PC with monitor, uninterruptible power supply (UPS), laserjet printer (minimum 20 ppm), LED flood light fittings(Halogen) for sight security etc. [PWD 01.1.3]	job	487,130.00	487,130.00	487,130.00	487,130.00	
1.02	Project Profile Signboard: Providing and fixing of typical project profile signboard as per direction of E-I-C, to be placed at a suitable place of the site including submission of proposals for the materials & size of the signboards (recommended size: 1800mm x 1200 mm with 2 nos. 75mm dia. MS post, outer & inner frames of board shall be 50mm x 50mm x 5mm & 25mm x 25mm x 5 mm respectively) and text layout to the engineer for approval which will be positioned as directed by the engineer and removing the same on completeion of the works or as instructed by the E-I-C. Sheeting will be made of encapsulated lens with retro-reflective type and messages/ borders will be screen printed. The text shall mention among others the name of the project, name of the implementing agency, cost of the project, completion time, name of the contractor etc.	sqm	16,872.86	16,825.93	16,755.53	16,755.53	

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1	2	3	4	5	6	7	
1.03	Supplying and providing of first aid box with necessary materials/medicine (hygienic gown, thermometer, adhesive dressings, antiseptic solutions, bandages, cotton balls or swaps, emergency blanket, gloves, hand sanitizer, ice pack, saline etc.). All complete as per direction of Engineer-in -charge. [PWD 01.1.4.3]	each	16,215.00	16,215.00	16,215.00	16,215.00	
1.04	Hiring, installation, testing & commissioning of CCTV/Surveillance facilities for monitoring construction site including supply, fixing of 5.0 megapixel IR fixed bullet network IP camera including lens, bracket, housing with outdoor night vision facilities, full HD 1080 pixel, real time video, network video recorder (NVR) , 2 TB HDD for NVR , 4/8/16/32 port PoE switch, 32"/42" Full HD CCTV monitor, cable & accessories, internet connection with operation & maintenance cost throughout contract completion period, re-fitting & re-fixing with progress of construction all complete as per direction of Engineer in charge. [PWD 01.1.5]	job	49,081.00	49,081.00	49,081.00	49,081.00	
1.05	Mobilization and cleaning site before commencing actual physical work and during contract period and demobilization after completion of the works under contract to be accepted by the Engineer-incharge. This work shall also cover cleaning and clearing, cutting or filling, dressing the project area on and in the ground to an extent that all the events of works of the project can be executed smoothly in a working environment with a particular attention on safety and security in all respects, and to stockpile the end outcome to a place for disposal agreed by the Engineer-in-charge, where, payments are to be based on ground area determined by the Engineer-in-charge and be proportionate to the percentage progress of work under contract as a whole in all respects and approved by the Engineer-in-charge. [PWD 01.7]	sqm	218.00	214.00	198.00	198.00	
1.06	Providing expertised architect having minimum qualification Bachelor of Architecture and relevant experience(s) more than 5 years with registration in respective professional body for detail documentation of architectural themes, drawings, working out shop drawings, communication with theme architect & getting approval, specifying architectural needs according to approved master architectural themes & plan, certifying as built drawing for the approval etc. and any relevant jobs assigned by the HOPE or his official at site (max man month not greater than 1/4 of initial contract duration or contract completion time whichever is less & payment for the item subject to submission of CV & approved by HOPE or his authorized officer). [PWD 01.8]	per month	80,000.00	80,000.00	80,000.00	80,000.00	
1.07	Providing expertised engineer having minimum qualification B.Sc. in Civil Engineering and relevant experience(s) more than 10 years with registration in respective professional body for project documentation, progress study & adjustment, preparation of project material schedule and testing schdule for approval etc. & jobs assigned by the HOPE or his official, at site (max man month not greater than 1/4 of initial contract duration or contract completion time whichever is less & payment for the item subject to submission of CV & approved by HOPE or his authorized officer). [PWD 01.9]	per month	120,000.00	120,000.00	120,000.00	120,000.00	
1.08	Bench Mark Pillar: Manufacturing, supplying & fixing in position RCC (1:2:4) Bench Mark Pillars of size 150mm x 150mm x 750mm, with 400mm x 400mm x 100mm base having 3 nos. 10mm dia MS bar each way at base, 4 nos. 10mm dia vertical bar and 8 nos. 6mm dia tie, including cost of form works, concreting, reinforcement, plastering at top, inscribing on exposed surface, finishing surface, curing, earth cutting, embedding 450mm below GL., backfilling, ramming etc. complete as per direction of E-I-C.	each	1,311.07	1,306.53	1,275.78	1,275.78	

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1	2	3	4	5	6	7
1.09	Providing 3 sets as-built drawings subject to Engineer's approval produced in AutoCAD software in 584.5 mm x 413.5 mm (A-2 size) standard drawing paper, and operating and maintenance manual of the equipment and plant incorporated in the works, if any, in original by the date stated in the particular conditions of contract (PCC). If the contractor does not supply the as-built drawings and operating & maintenance manuals by the date stated in the particular conditions of contract (PCC), or they do not receive the Engineer-in-charge's approval, the Engineer-in-charge shall withhold the amount stated in the PCC from the payments due to the contractor. The as-built drawings must show the permanent works as actually constructed and reflect the revision of drawings supplied to the contractor during the Contract as well as revisions of drawings supplied to the contractor during the contract (One set of as-built drawings shall be considered for measurement and payment) [PWD 01.2.1]	per tender	28,256.00	28,256.00	28,256.00	28,256.00
1.10	Videography: Providing and carrying out video shoting of roads, bridges, buildings, other programmes by professional videographer including hiring of vehicle, equipment for video shooting, titling, lightening, mixing, lettering, editing including cost of two DVDs of approved makes and quality etc. all complete as per direction of E-I-C. The edition of the video film and the script for narration shall be as approved by the engineer.	day				
1.10.01	Within 50 kilometer from district head quarter for full day	day	1,693.30	1,693.30	1,693.30	1,693.30
1.10.02	Beyond 50 kilometer from district head quarter for full day	day	1,840.54	1,840.54	1,840.54	1,840.54
1.10.03	Work upto 5 hours per day only	day	1,100.64	1,100.64	1,100.64	1,100.64
1.11	Photography: Shooting of still photographs by professinal photographer at outdoor and indoor of construction and other works of building, bridges, roads etc. for recording the progress of works at any distances including hiring of vehicle, equipment for photo shooting, lightening, mixing, lettering, editing including cost of digitized media & min. 10 nos.4R images printed on photo paper etc. all complete as per direction of E-I-C.	hour	441.73	441.73	441.73	441.73
1.12	Dust suppression measures	km	2,576.76	2,576.76	2,576.76	2,576.76
1.13	Temporary Toilet: Construction of temporary toilets in work site/ rest area complete as per design and specifications and approved by the Engineer-in-Charge. There should be 1 camp in each site. In each camp, there should be 1 no of toilet for women and 1 no of toilet for men	each	12,883.78	12,883.78	12,883.78	12,883.78
1.14	Traffic Management: Maintaining traffic management at worksite from time of commencement of contractor's activities to time of completion activities, including ensuring that the road is safe for users, providing a safe working area for those involved in work on trafficked network and minimizing any disruption to smooth flow of traffic (this includes providing necessary barricades, warning signs/lights, guide signs, flagmen, maintaining diversion roads by cutting, filling, constructing, etc. or by any other means) in accordance with the full satisfaction of the Engineering-in-charge, unless specified otherwise, including keeping provision for existing traffic and pedestrian movements in such a way as to assure that a single lane at least 3.0m wide is available for public traffic at all times (including access to properties and local roads) affected by the contractor's activities shall be maintained at all times (day & night), including removal of all temporary constructions on completion of the activities, etc. all complete as per requirement and instruction of Engineer-in-charge. All relevant accessories and arrangements under this item shall be property of the contractor and payment will be made after 100% completion of the contract successfully.	LS				
1.15	Supplying of Best Quality Safety hand gloves for construction work of Flexible/durable/excellent puncture resistance working gloves with PVC palm and T/C drill back, pasted cuff ,palm liner . all complete in all respect as per approved specification and direction of the Engineer-in-charge.	each	306.76	306.76	306.76	306.76

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1	2	3	4	5	6	7	
1.16	Supplying, fitting and fixing 18mm thick marble Name plate including cost of materials, labour, form work, engraving neatly the approved Sample given by the engineer etc. complete as per drawings and direction of the Engineer-in-charge.	sqm	8,500.16	8,494.02	8,320.40	8,320.40	

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1	2	3	4	5	6	7	
Chapter -	2 : Earth Works in Road Embankment						
2.01.1	C&G (Clearing and Grubbing): The work consists of cutting, removing and disposing of all materials such as trees, bushes, shrubs, stumps, roots, grass, weeds, rubbish, and removal of topsoil and other organic material etc. all complete as per direction of Engineer in Charge.	sqm	40.05	40.04	40.01	40.01	
2.02.1	EFW: Earth work in road embankment up to a lift of 1.5 m in all kinds of soil including cutting and throwing earth in layers not exceeding 150 mm in thickness, breaking clods up to 40 mm size in each layer, ramming, leveling and dressing as per required side slope and alignment with earth borrowed from the road side govt. acquired land for any leads and maintaining the embankment true to level and side slopes as per profiles for one year from the date of completion including making dug, bailing, profiling etc. complete and accepted by the Engineer-in-charge. [PWD 24.1]	cum					
2.02.1.1	For initial lift of 1.5 m	cum	201.00	197.00	183.00	183.00	
2.02.1.2	For additional lift of 1 m beyond 1.5 m up to 2.5	cum	229.00	225.00	209.00	209.00	
2.02.1.3	For additional lift of 1 m beyond 2.5 m up to 3.5 m	cum	258.00	253.00	234.00	234.00	
2.02.1.4	For additional lift of 1 m beyond 3.5 m up to 4.5 m	cum	286.00	281.00	261.00	261.00	
2.02.1.5	For additional lift of 1 m beyond 4.5 m up to 5.5 m	cum	315.00	309.00	286.00	286.00	
2.02.1.6	For additional lift of 1 m beyond 5.5 m up to 6.5 m	cum	344.00	338.00	313.00	313.00	
2.02.2	EFW(AE): Earth filling work with specified soil in any type of embankment, where earth shall be arranged by the contractor's own cost including royalty, cutting, carrying, filling and compacting to 85%/95%/98% of Maximum Dry Density (MDD) at Optimum Moisture Content (OMC), with reference to laboratory density test AASHTO standard hammer by throwing earth in layers not more than 150mm in each layer in proper alignment, grade, camber and side slope in all types of soil except rocky, gravelly and slushy including benching not more than 300mm in vertical and 600mm in horizontal steps along the sides while widening any embankment with clod breaking to maximum size of 100mm, benching the side slopes, removing roots and stumps of trees of girth upto 200mm and other foreign particles stripping/ ploughing the base of embankment and borrow pit area, dug bailing, clearing jungles, bail out of water, rough dressing including 150mm cambering at the centre of crest with all leads and lifts complete (compaction will be done by the contractor with approved equipment including all ancillary charges for compaction and testing) as per direction of Engineer in charge. Payment will be made on compacted volume.						
2.02.2.01	85% Compaction	cum	278.61	274.31	256.89	256.89	
2.02.2.02	95% Compaction	cum	404.23	400.31	384.35	384.35	
2.02.2.03	98% Compaction	cum	450.07	446.15	430.20	430.20	

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1	2	3	4	5	6	7
2.02.3	EFW(CE): Earth filling work with specified soil in any type of embankment, where earth shall be carried by truck/boat or any other means, supplied at contractor's own cost including royalty, cutting, carrying, filling and compacting to 85%/95%/98% of Maximum Dry Density (MDD) at Optimum Moisture Content (OMC), with reference to laboratory density test AASHTO standard hammer by throwing earth in layers not more than150mm in proper alignment, grade, camber and side slope in all types of soil except rocky, gravelly and slushy including benching not more than 300mm in vertical and 600mm in horizontal steps along the sides while widening any embankment, with clod breaking to maximum size of 100mm, benching the side slopes, removing roots and stumps of trees of girth upto 200mm and other foreign particles, stripping/ ploughing the base of embankment and borrow pit area, dug bailing, clearing jungles, bail out of water, rough dressing including 150mm cambering at the centre of crest with all leads and lifts complete (compaction will be done by the contractor with approved equipment including all ancillary charges for compaction and testing) as per direction of Engineer in charge. Payment will be made on compacted volume. The item is applicable when earth is supplied and arranged by the contractor from a distance beyond 200m from the end of right of way.	cum				
2.02.3.01	Outside municipal area, 85% Compaction	cum	327.69	323.40	305.97	305.97
2.02.3.02	Outside municipal area, 95% Compaction	cum	453.31	449.39	433.44	433.44
2.02.3.03	Outside municipal area, 98% Compaction	cum	492.47	488.54	472.59	472.59
2.02.3.04	Within municipal area, 85% Compaction	cum	395.98	391.68	369.41	369.41
2.02.3.05	Within municipal area, 95% Compaction	cum	525.26	521.33	500.27	500.27
2.02.3.06	Within municipal area, 98% Compaction	cum	568.68	564.75	543.39	543.39
2.02.4	EFW(DrS): Earth filling work in any type of embankment/pond/low lands with suitable dredged soil (sandy clay/silty clay/silt but excluding organic material), collected from silt-up river/canal bed by dredging with appropriate local dredger, including carrying through pipe or any other suitable means, loading, unloading and filling gradually at the right place of filling area in an artificial silt up manner at a suitable height and distance, including leveling, dressing and all necessary arrangements to fill-up soil and compacting to 95% of Maximum Dry Density (MDD) at Optimum Moisture Content (OMC) with reference to laboratory density test AASHTO modified hammer with suitable equipment dressing etc. complete in all respect as per direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, their carriages, hire charges of dredger and all other machines, equipment for filling soil as per specification, fuels, lubricants, wages of operational staff and all incidental charges in this connection, etc. Location of river bed from where earth will be collected and quality of borrow soil must have prior approval from the Engineer-in-charge. In no circumstances, earth shall be borrowed from agricultural/homestead land. The borrow earth have to be collected from river bed by avoiding any detrimental impact on the river channel. Payment will be made on compacted volume.	cum				
2.02.4.01	Initial distance within 300m	cum	312.46	312.18	311.42	311.42
2.02.4.02	Distance 300m to 600m	cum	339.46	339.17	338.41	338.41
2.02.4.03	Distance 600m to 1.0km	cum	388.05	387.77	387.00	387.00
2.02.4.04	Distance 1.0km to 2.0km	cum	442.04	441.75	440.99	440.99
2.02.4.05	Distance 2.0km to 3.0km	cum	496.03	495.74	494.98	494.98
2.02.4.06	Distance 3.0km to 4.0km	cum	550.01	549.73	548.97	548.97
2.02.4.07	Distance 4.0km and above	cum	631.00	630.72	629.96	629.96

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1	2	3	4	5	6	7	
2.03.1	CB: Providing clay blanket/clay cover by carried earth supplied at contractor's own cost including royalty in different thickness over the side slopes or crest of the road embankment with selected soil (clay content minimum 80% and silt content 0-20%) including throwing clay in layers not exceeding 150 mm in thickness, clod breaking, benching the side slopes and compacting to 95% of maximum dry density at optimum moisture content with reference to laboratory density test AASHTO standard hammer with suitable equipment dressing etc. complete as per direction of Engineer-in-charge. Composition of specified soil must be confirmed by laboratory test before use. (compaction will be done by the contractor with approved equipment including all ancillary charges for compaction and testing) as per direction of Engineer in charge. Payment will be made on compacted volume.	cum	453.31	449.39	433.44	433.44	
2.04.1	EWEx(Rd/C/P): Earthwork in excavation of roadway/canal/pond etc of any dimension in all kinds of soil including cutting up to required depth including bailing out water and throwing on the embankment, breaking clods, ramming and leveling, dressing in 225 mm layer with maintaining the side slopes and level of both pond and the embankment as per design and accepted by the Engineer-incharge.[PWD 02.18]	cum					
2.04.1.1	For initial lead of 30 m and lift of 1.5 m	cum	259.00	255.00	236.00	236.00	
2.04.1.2	Added for each additional lift of 0.3 m beyond 1.5 m and up to 3 m	cum	268.00	264.00	244.00	244.00	
2.04.3	EWEx(Dr): Earth work in re-excavation of Beel, River & Beel connectivity (Canal) etc. by small dredging unit according to the lines, grades and elevation as shown in the drawing, fitting of cutter machine, delivery pipe fitting, soil management, filling chamber, village platform and disposing of all excavated materials at a safe distance designated by the E-I-C in all types of clay/slurry/organic soils except rocky, gravelly, slushy soil, levelling, dressing, etc. all complete for an initial soil dumping lead upto 100m including arranging for and supplying all necessary tools and equipment at work site etc. complete as per direction of the E-I-C.	cum	121.70	121.62	121.14	121.14	
2.04.4	EWEx(M): Earth Excavation by Mechanical hydraulic Excavator (Long Boon) in roadway/canals/ponds, etc. with 0.90 cum bucket capacity, including cutting and loading in tippers or disposing of all excavated materials at a safe distance designated by the E-I-C, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, leveling, dressing, etc. all complete for an initial excavation depth of 3m and lead upto 20m. including cost of hire charges of Excavator and all other machines, equipment, fuels, lubricants and wages of operational staff etc. all complete as per the direction of the E-I-C	cum	105.88	105.82	105.38	105.38	
2.05.1	Leveling and dressing the embankment crown, road flanks, etc. in maintenance work by earth cutting and filling as necessary with maintaining proper slope and camber including compaction etc. all complete as per direction of the E-I-C.	sqm	15.46	15.22	14.11	14.11	
2.05.2	E/C(Mech): Compaction of earth in constructing of road embankment/road slopes/ canal bank/ compounds etc. as per design to profile in layers not exceeding 200mm thick, including clod breaking to a maximum size of 75mm, leveling, dressing, watering to bring moisture content ± 2% of OMC & compacting soil by vibratory soil compactor or by appropriate mechanical means to attain 95% of Maximum Dry Density (MDD) at Optimum Moisture Content (OMC) with reference to laboratory density test AASHTO-180 etc. all complete in all respect as per drawing, specification, direction and accepted by the Engineer-in-charge. [This item will be applicable where compaction events are not included in the items like compaction on box cutting soil]	cum	139.03	138.73	137.50	137.50	

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1	2	3	4	5	6	7	
2.05.3	ESC(Mech): Scarifying and loosening of existing earthen shoulder up to the minimum depth of 100mm, including removing all detrimental material, breaking clods, levelling, dressing, maintaining proper grade & cross-fall (minimum+5%), watering to OMC ± 2% & compacting by vibratory soil compactor or by appropriate mechanical means to attain minimum 95% of Maximum Dry Density (MDD) at Optimum Moisture Content (OMC) with reference to laboratory density test AASHTO-180 etc. all complete in all respect as per drawing, specification, direction and accepted by the Engineer-incharge.	sqm	45.85	45.61	44.62	44.62	
2.06.1	Creating turf on the side slopes and top of embankment with good quality turf not less than 225 mm square chunk, watering till the grass grown including all leads and lifts etc. complete and accepted by the Engineer-in-charge. [PWD 24.3]	sqm	23.00	22.00	21.00	21.00	
2.06.2	Supplying and planting vetiver (Binna) grass/lawn grass in a bunch of 2 to 3 stem @of 225mm c/c all over the side slope starting from 225mm beyond the edge of the shoulder and watering till the grasses are fully grown etc. all complete as per direction of E-I-C. The stem should be 125mm to 150mm long with roots. (The payment is to be made only when grasses are fully grown)	sqm	58.59	57.79	54.60	54.60	

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1	2	3	4	5	6	7	
	3 : Road Works						
	Box Cutting		,				
3.01.1	BP: Preparation of bed by cutting and filling including watering to bring moisture content ± 2% of OMC & compacting by appropriate mechanical means etc. to obtain design CBR at minimum compaction 98% of Maximum Dry Density (MDD) etc. all complete as per direction of the E-I-C	sqm	16.13	16.03	15.33	15.33	
3.01.2	BC(150mm): Earth work in box cutting on road crest up to 150mm depth, maintaining proper grade, camber and alignment, super elevation on curves, removing soil to a safe distance or spreading the excavated earth on road flanks and slopes uniformly including leveling, dressing,watering and compacting the sub-grade soil by manual means etc. all complete as per direction of the E-I-C.	sqm	33.74	33.13	30.68	30.68	
3.01.3.1	BC(300mm): Earthwork in box cutting on road crest up to 300mm depth in all types of soil. Removing soil to a safe distance, maintaining proper alignment, camber and grade including leveling, dressing and compacting the sub grade as per drawing and accepted by the Engineer-in-charge. [PWD 24.2.1]	sqm	65.83	64.84	60.06	60.06	
3.01.3.2	BC&SGC(300mm): Earth work in box cutting on road crest up to 300mm depth, maintaining proper grade, camber and alignment, super elevation on curves, removing soils to a safe distance or if necessary, spreading the excavated earth on road flanks and slopes uniformly including leveling, dressing, watering to bring moisture content ± 2% of OMC & compacting the sub-grade by appropriate mechanical means to attain design CBR at specified degree of compaction etc. all complete as per direction of the E-I-C.	sqm					
3.01.3.2.01	Degree of Compaction: Minimum 98% of MDD (Standard Proctor)	sqm	77.18	76.07	71.04	71.04	
3.01.3.2.02	Degree of Compaction: Minimum 95% of MDD (Modified Proctor)	sqm	88.95	87.84	82.81	82.81	
3.01.3.3	BC&SGP(300mm): Earth work in box cutting up to 300mm depth & Preparation of sub-grade by excavating road crest another 300mm depth, removing soils to a safe distance or spreading the excavated earth on road flanks, slopes. In preparing 300mm sub-grade below the box, excavating top 150mm layer and excavated earth set aside to reuse, then scarifying the bottom 150 mm layer, breaking clods to 40mm maximum in size, leveling, dressing, watering to OMC ± 2% & compacting the 1st layer by appropriate mechanical means to attain design CBR at specified degree of compaction, subsequently prepare 2nd layer by spreading aside materials on top of prepared 1st layer, removing all deleterious material breaking clods, leveling, dressing, watering to OMC ± 2% and compacting the layer following the same procedure as 1st layer to attain design CBR including maintaining proper grade, camber and alignment, super elevation on curves etc. all complete as per direction of the E-I-C. (When in-situ sub grade materials is suitable but very loose)	sqm	440.54	440.20	420.55	420.55	
3.01.3.3.01	Degree of Compaction: Minimum 98% of MDD (Standard Proctor)	sqm	148.51	146.30	136.55	136.55	
3.01.3.3.02	Degree of Compaction: Minimum 95% of MDD (Modified Proctor)	sqm	169.73	167.52	157.77	157.77	
3.01.3.4	BC&SGP: Earth work in box cutting up to requried depth & Preparation of sub-grade by excavating road crest another 300mm depth, removing soils to a safe distance or spreading the excavated earth on road flanks, slopes. In preparing 300mm sub-grade below the box, excavating top 150mm layer and excavated earth set aside to reuse, then scarifying the bottom 150 mm layer, breaking clods to 40mm maximum in size, leveling, dressing, watering to OMC \pm 2% & compacting the 1st layer by appropriate mechanical means to attain design CBR at specified degree of compaction, subsequently prepare 2nd layer by spreading aside materials on top of prepared 1st layer, removing all deleterious material breaking clods, leveling, dressing, watering to OMC \pm 2% and compacting the layer following the same procedure as 1st layer to attain design CBR including maintaining proper grade, camber and alignment, super elevation on curves etc. all complete as per direction of the E-I-C. (When in-situ sub grade materials is suitable but very loose)						

Item Code	Brief Description of Item				ite	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.01.3.4.01	Degree of Compaction: Minimum 98% of MDD (Standard Proctor)	cum	494.42	487.06	454.54	454.54
3.01.3.4.02	Degree of Compaction: Minimum 95% of MDD (Modified Proctor)	cum	548.00	540.64	508.13	508.13
3.01.4.2	BC&SGC(450mm): Earth work in box cutting on road crest up to 450mm depth, maintaining proper grade, camber and alignment, super elevation on curves, removing soils to a safe distance or if necessary, spreading the excavated earth on road flanks and slopes uniformly including leveling, dressing, watering to bring moisture content ± 2% of OMC & compacting the sub-grade by appropriate mechanical means to attain design CBR at specified degree of compaction etc. all complete as per direction of the E-I-C.	sqm				
3.01.4.2.01	Degree of Compaction: Minimum 98% of MDD (Standard Proctor)	sqm	106.87	105.22	98.03	98.03
3.01.4.2.02	Degree of Compaction: Minimum 95% of MDD (Modified Proctor)	sqm	118.64	117.00	109.81	109.81
3.01.4.3	BC&SGP(450mm): Earth work in box cutting up to 450mm depth & Preparation of sub-grade by excavating road crest another 300mm depth, removing soils to a safe distance or spreading the excavated earth on road flanks, slopes. In preparing 300mm sub-grade below the box, excavating top 150mm layer and excavated earth set aside to reuse, then scarifying the bottom 150 mm layer, breaking clods to 40mm maximum in size, leveling, dressing, watering to OMC ± 2% & compacting the 1st layer by appropriate mechanical means to attain design CBR at specified degree of compaction, subsequently prepare 2nd layer by spreading aside materials on top of prepared 1st layer, removing all deleterious material breaking clods, leveling, dressing, watering to OMC ± 2% and compacting the layer following the same procedure as 1st layer to attain design CBR including maintaining proper grade, camber and alignment, super elevation on curves etc. all complete as per direction of the E-I-C. (When in-situ sub grade materials is suitable but very loose)	sqm				
3.01.4.3.01	Degree of Compaction: Minimum 98% of MDD (Standard Proctor)	sqm	179.80	177.10	165.08	165.08
3.01.4.3.02	Degree of Compaction: Minimum 95% of MDD (Modified Proctor)	sqm	201.02	198.32	186.29	186.29
Section-02:	Improved Sub-Grade	<u> </u>				
3.02.1.1	Sand (FM 0.50) filling on the road bed in the improved sub-grade with sand (minimum FM 0.5) free from dust, earth, other vegetable growth, foreign materials etc. including supplying all materials, spreading, watering, compacting by appropriate mechanical means to obtain a minimum Soaked CBR 8% or Design CBR at minimum compaction 98% of Maximum Dry Density (MDD) (Modified Proctor), etc. all complete as per direction of the E-I-C.	cum	944.95	952.19	938.81	938.81
3.02.1.2	Sand (FM 0.80) filling on the road bed in the improved sub-grade with sand (minimum FM 0.8) free from dust, earth, other vegetable growth, foreign materials etc. including supplying all materials, spreading, watering, compacting by appropriate mechanical means to obtain a minimum Design Soaked CBR but not less than 8% at minimum compaction 98% of Maximum Dry Density (MDD) (Modified Proctor), etc. all complete as per direction of the E-I-C.	cum	1,015.50	1,018.51	979.73	979.73
3.02.1.3	Filling the road bed in the improved sub-grade with locally available sand (passing <=15% through #200 sieve) free from dust, earth clod, other vegetable growth, foreign materials etc. including supplying all materials, spreading, watering, compacting by appropriate mechanical means to obtain a minimum Soaked CBR 8% or Design CBR at minimum compaction 98% of Maximum Dry Density (MDD) (Modified Proctor), etc. all complete as per direction of the E-I-C.	cum	834.88	771.57	751.14	811.81
3.02.1.4	SB for Uni-Paver: Providing compacted Sand Bedding over the finished base course, including supplying well graded sand of minimum FM=2.5, free from dust, earth, other vegetation, foreign materials, etc., including spreading sand uniformly of specified loose thickness on finished road surface maintaining grade, camber and super elevation, local handling, booming, watering, to bring moisture content ± 3% of OMC & compacting by appropriate mechanical means to obtain a minimum design compaction, etc. all complete in all respect as per drawing, specification, direction and accepted by the Engineer-in-charge.	cum	2,885.42	2,793.88	2,824.25	2,794.62

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.02.2	PilSG: Labour charge for taking out the existing sand from road bed of any thickness and removing the debris including staking the materials at a specified distance, etc. all complete as per direction of the E-I-C.	cum	101.23	99.39	92.03	92.03
3.02.3	CISG: Labour for spreading & compaction of Improved Subgrade consisting of sand having compacted thickness as per specifications including local handling, hand packing, watering, rolling in layers of specified loose thickness with 8~10 tonne road roller to achieve Design Soaked CBR but not less than 8% at a degree of compaction to minimum 98% Maximum Dry Density (MDD) (Modified Proctor) etc all complete as per direction of the Engineering-in-charge. Thickness of each layer should not be more than 125mm loose and Payment will be made on compacted thickness. (The rate excludes the cost of sand)	cum	182.96	181.73	176.83	176.83
Section-03:	Sub-Base Course					
3.03.1	Dis(SB/BC): Dismantling of damaged sub-base and Base course works in flexible paved road of any thickness by appropriate mechanical means and removing the debris to a safe distance, stacking properly including all tools and plants, etc. all complete as per direction of the E-I-C.	cum	194.53	192.69	185.33	185.33
3.03.2	S&C(SB): Labour for mixing, spreading & compacting of Sub-base consisting of sand and crusher run aggregate made of well burnt picked 1st class bricks or stone having compacted thickness as per specifications including local handling, hand packing, watering, dry rolling followed by wet rolling in layers of specified loose thickness with 8~10 tonne road roller to achieve Design soaked CBR but not less than 30% at a degree of compaction to minimum 98% (Modified Proctor) etc. all complete as per direction of the Engineering-incharge. Thickness of each layer should not be more than 100mm loose and Payment will be made on compacted thickness. (The rate excludes the cost of sand, brick/stone aggregates)	cum	453.85	448.33	431.77	431.77
3.03.3.1	SBBC(FM-0.5): Providing compacted aggregate sand sub-base course with 38mm down Crusher run 1st class bricks/picked chips of LAA value not exceeding 40 & sand of minimum FM 0.50 mixed in proportion 1:1 by volume placed in layer(s), mixing properly, watering, compacting with 8~10 tonne road roller to attain each layer's minimum soaked CBR 30% or Design CBR at minimum compaction 98% of MDD (Modified Proctor) including supplying of all materials, labourers, tools and equipment etc. all complete as per direction of the E-I-C.	cum	4,358.52	4,350.50	4,185.64	4,185.64
3.03.3.2	SBBC(FM<0.5): Providing compacted aggregate sand sub-base course with 38mm down Crusher run 1st class bricks/picked chips of LAA value not exceeding 40 & locally available sand (Passing <=15% through #200 sieve) mixed in proportion 1:1 by volume placed in layer(s) to give a maximum compacted thickness of 100mm in a single appropriate layer, mixing properly, watering, compacting with 8~10 tonne road roller to attain each layer's minimum soaked CBR 30% or Design CBR at minimum compaction 98% of MDD (Modified Proctor) including supplying of all materials, labourers, tools and equipment etc. all complete as per direction of the E-I-C.	cum	4,294.87	4,246.05	4,077.12	4,112.20
3.03.3.3	SBSL(FM-0.5): Providing compacted aggregate sand sub-base course with 38mm down local Crushed stone (Louva) chips mixed with Bholaganj crushed stone chips, as necessary, having LAA value not exceeding 40 & sand of minimum FM 0.50 mixed in proportion 1:1 by volume placed in layer(s), mixing properly, watering, compacting with 8~10 tonne road roller to attain each layer's minimum soaked CBR 30% or Design CBR at minimum compaction 98% of MDD (Modified Proctor) including supplying of all materials, labourers, tools and equipment etc. all complete as per direction of the E-I-C.	cum	4,076.19	4,116.15	3,661.79	3,984.91

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.03.3.4	SBBC(FM-0.8): Providing compacted aggregate sand sub-base course with 38mm down Crusher run 1st class bricks/picked chips of LAA value not exceeding 40 & sand of minimum FM 0.80 mixed in proportion 1:1 by volume placed in layer(s), mixing properly, watering, compacting with 8~10 tonne road roller to attain each layer's minimum soaked CBR 35% or Design CBR at minimum compaction 98% of MDD (Modified Proctor) including supplying of all materials, labourers, tools and equipment etc. all complete as per direction of the E-I-C.	cum	4,399.32	4,388.85	4,209.30	4,209.30
3.03.4.1	SBBC(70:30): Providing compacted aggregate sand sub-base course with 38mm down brick chips made of 1st class /picked brick (LAA value not exceeding 40) mixed thoroughly with sand of requisite FM (FM not less than 0.8) to obtain a homogeneous mix complying with the specified grading requirement of the relevant item of Road Design standards, (Suggested mixing ratio Brick Chips 38mm downgraded 25% and 20mm downgraded 45% with 30% sand) including mixing, carrying, placing and spreading uniformly in appropriate layer to give specified compacted thickness not more than 100mm in a single layer, watering, compacting by 8~10 tonne road roller at OMC±3% to obtain each layer's minimum soaked CBR 50% or Design CBR at minimum compaction 98% of MDD (Modified Proctor), including supplying of all materials, their carriage, labourers tools and equipment etc. all complete as per direction of the E-I-C.	cum	5,767.16	5,750.78	5,510.49	5,510.49
3.03.4.2	SBSC(50:50): Providing compacted aggregate sand sub-base course with 38mm down chips made of Crushed Stone (LAA value not exceeding 35) mixed thoroughly with sand of requisite FM (FM not less than 0.8) to obtain a homogeneous mix complying with the specified grading requirement of the relevant item of Road Design standards, (Suggested mixing ratio Crushed Stone 38mm downgraded 25% and 20mm downgraded 25% with 50% sand of total mix) including mixing, carrying, placing and spreading uniformly in appropriate layer to give specified compacted thickness not more than 100mm in a single layer, watering, compacting with 8~10 tonne road roller at OMC±3% to obtain each layer's minimum soaked CBR 50% or Design CBR at minimum compaction 98% of MDD (Modified Proctor), including supplying of all materials, their carriage, labourers tools and equipment etc. all complete as per direction of the E-I-C.	cum	7,508.46	7,646.31	6,695.60	6,932.41
3.03.5.1	SBbySM(FM-0.5): Providing compacted aggregate sand sub-base course with 38mm down crusher run 1st class bricks/picked chips from suitable salvage materials and supplying sand of minimum FM 0.50 mixed in proportion of 1:1 by volume placed in layer(s), mixing properly, watering, compacting with 8~10 tonne road roller to attain each layer's minimum soaked CBR 30% or Design CBR at minimum compaction 98% of MDD (Modified Proctor) including supplying of all materials, labourers, tools and equipment etc. all complete as per direction of the E-I-C. (Excluding cost of 0.6650cum brick chips per cum work).	cum	1,069.33	1,064.41	1,031.91	1,031.91
3.03.5.2	SBbySM(FM-0.8): Providing compacted aggregate sand sub-base course with 38mm down crusher run 1st class bricks/picked chips from suitable salvage materials and supplying sand of minimum FM 0.80 mixed in proportion of 1:1 by volume placed in layer(s), mixing properly, watering, compacting with 8~10 tonne road roller to attain each layer's minimum soaked CBR 35% or Design CBR at minimum compaction 98% of MDD (Modified Proctor) including supplying of all materials, labourers, tools and equipment etc. all complete as per direction of the E-I-C. (Excluding cost of 0.6650cum brick chips per cum work).	cum	1,110.13	1,102.76	1,055.57	1,055.57
Section-04:	End Edging					
3.04.1.1	PiEE(75mm): Labour charge for picking up the existing brick on end edging (75mm across) including staking the materials at a specified distance, etc. all complete as per direction of the E-I-C.	m	9.45	9.28	8.59	8.59
3.04.1.2	PiEE(125mm): Labour charge for picking up the existing brick on end edging (125mm across) including staking the materials at a specified distance, etc. all complete as per direction of the E-I-C.	m	18.22	17.89	16.56	16.56

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.04.2.1	ReEE(75mm): Labour charge for Resetting the brick on end edging (75mm across) with 1st class/picked bricks including cutting trenches true to level & maintaining grade, removing earth, re-filling & ramming the sides properly, including supplying and filling the gaps with local sand, etc. all complete as per direction of the E-I-C.	m	17.40	17.17	15.99	15.99	
3.04.2.2	ReEE(125mm): Labour charge for Resetting the brick on end edging (125mm across) with 1st class/picked bricks including cutting trenches true to level & maintaining grade, removing earth, re-filling & ramming the sides properly, including supplying and filling the gaps with local sand, etc. all complete as per direction of the E-I-C.	m	29.02	28.65	26.75	26.75	
3.04.3.1	EE (75mm): Brick on end edging (75 mm across the road) with first class or picked jhama bricks and filling the gaps with fine sand (F.M. 0.80) including cutting trenches, true to level and grade, removing earth, refilling and ramming the sides properly including cost of all materials and accepted by the Engineer-in-charge. [PWD 24.7.1]	m	166.96	166.36	159.91	159.91	
3.04.3.2	EE(125mm): Brick on end edging (125mm across) with 1st class/picked bricks including cutting trenches true to level & maintaining grade, removing earth, re-filling & ramming the sides properly, including supplying and filling the gaps with local sand, etc. all complete as per direction of the E-I-C.	m	250.31	249.98	239.64	239.64	
Section-05:	Base Course						
3.05.1	S&SBC: Supplying and spreading 1st class and picked brick chips (LAA value not exceeding 40) including cost of bricks carrying breaking into specified sizes including screening & spreading uniformly on the road surface maintaining grade, camber and super elevation, etc. all complete as per direction of the E-I-C.						
3.05.1.1	20mm downgraded	cum	5,300.76	5,283.58	5,073.76	5,073.76	
3.05.1.2	40mm downgraded	cum	5,131.43	5,116.70	4,914.24	4,914.24	
3.05.1.3	50mm downgraded	cum	4,978.05	4,965.78	4,770.07	4,770.07	
3.05.1.4	63mm downgraded	cum	4,877.43	4,866.39	4,674.97	4,674.97	
3.05.1.5	80mm downgraded	cum	4,792.77	4,782.95	4,595.22	4,595.22	
3.05.2	B&SBC: Labour charge for breaking and spreading 1st class & picked brick chips including cost of bricks carrying, breaking into specified sizes including screening & spreading uniformly on the road surface maintaining grade, camber and super elevation, etc. all complete as per direction of the E-I-C.						
3.05.2.1	20mm downgraded	cum	552.16	533.76	506.15	506.15	
3.05.2.2	40mm downgraded	cum	441.73	427.01	404.92	404.92	
3.05.2.3	50mm downgraded	cum	368.11	355.84	337.43	337.43	
3.05.2.4	63mm downgraded	cum	331.30	320.25	303.69	303.69	
3.05.2.5	80mm downgraded	cum	294.49	284.67	269.95	269.95	
3.05.3	S&SSC: Supplying and spreading stone chips of LAA value not exceeding 35% [Preferably stone chips from Madhyapara, Dinajpur], to be obtained from boulders including cost of boulders carrying breaking into specified sizes including screening & spreading uniformly on the road surface maintaining grade, camber and super elevation, etc. all complete as per direction of the E-I-C.						
3.05.3.1	20mm downgraded	cum	9,100.68	9,299.45	7,857.27	8,265.25	
3.05.3.2	40mm downgraded	cum	8,953.43	9,157.12	7,722.29	8,130.28	
3.05.3.3	50mm downgraded	cum	8,806.19	9,014.78	7,587.32	7,995.31	
3.05.3.4	63mm downgraded	cum	8,622.13	8,836.86	7,418.61	7,826.59	
3.05.3.5	80mm downgraded	cum	8,438.08	8,658.95	7,249.89	7,657.88	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.05.4.1	S&SBC(WG): Supplying and spreading 50mm downgraded crusher run 1st class and Picked brick chips of LAA value not exceeding 40% including supplying of required amount of 12mm downgraded chips made of same quality bricks to fill the voids including cost of materials, spreading uniformly in layers of specified loose thickness on road surface maintaining grade, camber and super elevation, etc. all complete as per direction of the E-I- C. Measurement will be made on loose volume.	cum	5,067.68	5,059.52	4,850.74	4,850.74	
3.05.4.2	S&SSC(WG): Supplying and spreading 50mm downgraded crusher run stone chips of LAA value not exceeding 35% including supplying of required amount of 12mm downgraded chips made of same quality stone to fill the voids including cost of materials, spreading uniformly in layers of specified loose thickness on road surface maintaining grade, camber and super elevation, etc. all complete as per direction of the E-I-C. Measurement will be made on loose volume.	cum	8,729.07	8,971.04	8,041.94	8,272.62	
3.05.5	B&SCS: Labour charge for breaking and spreading the concrete slab into pieces, salvaged from existing RCC/CC pavement, breaking into specified sizes including screening & stacking properly in measurable stacks (max stack height 0.5m) at site, etc. all complete including dismantling existing concrete pavement as per direction of the E-I-C.						
3.05.5.1	20mm downgraded	cum	2,024.59	1,957.11	1,855.88	1,855.88	
3.05.5.2	40mm downgraded	cum	1,840.54	1,779.19	1,687.16	1,687.16	
3.05.5.3	50mm downgraded	cum	1,472.43	1,423.35	1,349.73	1,349.73	
3.05.5.4	63mm downgraded	cum	1,288.38	1,245.43	1,181.01	1,181.01	
3.05.5.5	75mm downgraded	cum	1,104.32	1,067.51	1,012.30	1,012.30	
3.05.6	CWBM(iSSM): Labour charge for compacted WBM base course with crusher run aggregate made of well burnt picked and 1st class bricks or stone having compacted thickness as per specifications including local handling, hand packing, watering, dry rolling followed by wet rolling in layers of specified loose thickness with 8~10 tonne road roller to attain each layer's minimum soaked CBR 80% or Design CBR at specified degree of compaction including supplying choking/screening material as filler material @0.012cum/sqm or as required etc. all complete as per direction of the Engineering-incharge. After adequate dry rolling, spreading of choking/screening material on the surface, sprinkling of water and rolling is to be continued until all the voids are filled, wave of grout/slurry flushes ahead of the roller. Thickness of each layer should not be more than 100mm loose and Payment will be made on compacted thickness. The rate excludes the cost of brick aggregates.	cum					
3.05.6.01	Degree of compaction: minimum 98% of MDD (Modified Proctor)	cum	596.03	593.94	581.73	581.73	
3.05.6.02	Degree of compaction: 100% of MDD (Modified Proctor)	cum	698.10	696.03	683.68	683.68	
3.05.7.1	WBMBC: Providing compacted brick aggregate base course, including supplying, spreading and compacting 50mm downgraded crusher run 1st class and Picked brick chips (LAA value not exceeding 40%) including supplying of required amount of 12mm downgraded chips made of same quality bricks, including spreading uniformly in layers of specified loose thickness on road surface maintaining grade, camber and super elevation including local handling, hand packing, booming, watering, dry rolling followed by wet rolling in layers with 8~10 tonne road roller to attain each layer's minimum soaked CBR 80% or Design CBR at specified degree of compaction, including supplying choking/screening material as filler material @0.018cum/sqm or as required including cost of materials, labours etc. all complete as per direction of the E-I-C. After adequate dry rolling spreading of choking/screening material on the surface, sprinkling water and rolling is to be continued until all the voids are filled, wave of grout/slurry flushes ahead of the roller. Thickness of each layer should not be more than 100mm loose and measurement for Payment will be made on compacted thickness.	cum					

Dahaka Kampuraningh Division Dahaka Kampuraningh Division	Item Code	Brief Description of Item	Unit	Rate				
3.05.7.1.01 Degree of Compaction: Minimum 98% of MDD (Modified Proctor) cum 6,966.94 6,951.51 6,677.63 6 3.05.7.1.02 Degree of Compaction: 100% of MDD (Modified Proctor) cum 7.371.41 7,355.73 7,088.63 3 3.05.7.2 WMMSC: Providing compacted brick aggingate WMM base course, including supplying, spreading and compacting 38mm downgraded aggregates as specified in the relevant item of LCED road design standard or well run macadism specification (LA value not exceeding 40%) made of 1st class and Plotka bricks, combining brick-chips of afferent stass to provide requisite grading and permitting the material with water at ONC in mechanical mix plant at stack yard including carriage of mixed material by lisper with proper coverag to site, laying in uniform layers of specified blogsed or compaction in college of compaction of the EI-CE of the providence and compacting with 8-10 cBR 80% or board or the second of the EI-CE of th				Dhaka & Mymensingh	& Sylhet	Rangpur	Zone-D Khulna & Barishal Division	
3.05.7.1.02 Degree of Compaction: 100% of MDD (Modified Protor) 3.05.7.2 WMMSC: Providing compacted brick aggregate WMM base course, with the control of th	1	2	3	4	5	6	7	
3.05.7.2 WMMBC: Providing compacted brick aggregate WMM base course, including supplying, spreading and compacting 38mm downgraded aggregates as specified in the relevant ten of LCED road design standard or wet mix macadam specification. (LAA value not exceeding 40% mixed of 1st class and Picked bricks, combining brick chips of different sizes to provide requisite grading and promising the material with water at ONCE in mechanical mix plant at stack yard including camage of mixed material by tipper with proper covering to site, aying in uniform layers of specified observe of compaction including supplying all materials, carriage, labors, took & equipment etc. all complete as per direction of the EI-C. 3.05.7.2.01 Degree of Compaction. 100% of MDD (Modified Proctor) 3.05.7.2.02 Degree of Compaction. 100% of MDD (Modified Proctor) 3.05.7.2.02 Degree of Compaction. 100% of MDD (Modified Proctor) 3.05.7.2.02 Degree of Compaction including supplying all materials, carriage, labors, took a specified to the relevant item of LCED and design shandard (LAA value not exceeding 35%), including supplying of materials, to the specified specified in the relevant item of LCED and design shandard (LAA value not exceeding 35%), including supplying and supplying all materials, and the specified in the relevant item of LCED and design shandard (LAA value not exceeding 35%), including specified or specified to see the specified or specified because of same quality stone and Sand of minimum FMH-080. including spreading and materials as filter material and specified specified because the surface, sprinking water and rolling is to be continued until all the voices are filted, wave of groundship with the specified specified because the surface, sprinking water and rolling is to be continued until all the voices are filted, wave of groundship with the specified of the relevant item of LCED road design shandard in specification (LAA value not exceeding 35%) made of Cousied stone combining aggregates of different sizes to water with s	3.05.7.1.01	Degree of Compaction: Minimum 98% of MDD (Modified Proctor)	cum	6,966.94	6,951.51	6,677.63	6,677.63	
including supplying, spreading and compacting 38mm downgraded a spergregates as specified in the relevant interior (LOED road design standard or well mix meacatan specification (LAA value not exceeding 40%) made of 1st class and Picked bricks, combining brick chips of different sizes to provide requisite grading and premising the melarial with water at ONC in mechanical mix plant at stack yard including carriage of mixed material by tipper with proper covering to site, laying in uniform layers of specified observe thickness not more than 100mm with Creater in base course on well prepared surface and compacting with 8-10 tome Virastory road roller to attain each layer's minimum soaked CBR 80% or Design CBR at specified degree of Compaction. Molitoring supplying all materials, carriage, labors, tools & equipment etc. all complete as per direction of the E-L-C. 305.72.201 Degree of Compaction. 100% of MDD (Modified Proctor) cum 7,998.35 7,982.44 7,694.78 7.305.72.00 Degree of Compaction. 100% of MDD (Modified Proctor) cum 7,998.35 7,982.44 7,694.78 7.305.72.00 Degree of Compaction. 100% of MDD (Modified Proctor) cum 7,998.35 7,982.44 7,694.78 7.305.72.00 Degree of Compaction. 100% of MDD (Modified Proctor) cum 7,998.35 7,982.44 7,694.78 7.305.72.00 processing specified districts of the relevant term of LCED road degree shadors of the relevant term of LCED road contributions of the relevant of the relevant term	3.05.7.1.02	Degree of Compaction: 100% of MDD (Modified Proctor)	cum	7,371.41	7,355.73	7,069.63	7,069.63	
3.05.7.2.02 Degree of Compaction: 100% of MDD (Modified Proctor) cum 7,998.35 7,982.44 7,694.78 7 3.05.8.1 WBMSC: Providing compacted Stone Aggregate Base Course by supplying, spreading and compacting 50mm downgraded crusher run stone chips as specified in the relevant time of LGED road design standard (LAA value not exceeding 35%), including supplying of required amount of 12mm downgraded chips made of same quality stone and Sand of minimum FM-9.08, including supplying uniformly in layers of specified loose thickness on road surface maintaining grade, camber and super elevation including local handling, hand packing, booming, watering, dry rolling followed by wet rolling in layers with 8-10 tone road roller to attain each layer's minimum soaked CBR 90% or Design CBR at specified degree of compaction, blinding with choking material as filler material (Bo.0.18c.um/sam or as required including cost of materials, labours etc. all complete as per direction of the E-I-C. After adequate dry rolling spreading choking material an the surface, sprinkling water and rolling is to be continued until all the voids are filled, wave of grout/slurry flushes ahead of the roller. Thickness of each layer should not be more than 100mm loose and measurement for Payment will be made on compacted thickness. 3.05.8.1.01 Degree of Compation: Minimum 98% of MDD (Modified Proctor) cum 9,073.93 9,284.61 8,402.74 6 8 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 8,881.00 9 9,583.74 9,805.48 9,805.48 9,805.48 9,805.48 9,805.48 9,805.48 9,805.48 9,805.48 9	3.05.7.2	including supplying, spreading and compacting 38mm downgraded aggregates as specified in the relevant item of LGED road design standard or wet mix macadam specification (LAA value not exceeding 40%) made of 1st class and Picked bricks, combining brick chips of different sizes to provide requisite grading and premixing the material with water at OMC in mechanical mix plant at stack yard including carriage of mixed material by tipper with proper covering to site, laying in uniform layers of specified loose thickness not more than 100mm with Grader in base course on well prepared surface and compacting with 8~10 tonne Vibratory road roller to attain each layer's minimum soaked CBR 80% or Design CBR at specified degree of compaction including supplying all materials, carriage, labors, tools & equipment etc. all complete as per direction	cum					
3.05.8.1 WBMSC: Providing compacted Stone Aggregate Base Course by supplying, spreading and compacting 50mm downgraded crusher run stone chips as specified in the relevant litem of LGED road design standard (LAA value not exceeding 35%), including supplying of required amount of 12mm downgraded chips made of same quality stone and Sand of minimum FM-9.08, including supplying of required amount of 12mm downgraded chips made of same quality stone and Sand of minimum FM-9.08, including spreading uniformly in layers of specified loose thickness on road surface maintaining grade, camber and super elevation including local handling, hand packing, booming, watering, dry rolling followed by wet rolling in layers with 8-10 tonne road roller to attain each layer's minimum soaked CBR 90% or Design CBR at specified degree of compaction, blinding with choking material as filler material (@0.018cum/sgm or as required including oost of materials, labours etc. all complete as per direction of the E1-LC. After adequate dry rolling spreading choking material on the surface, sprinkling water and rolling is to be continued until all the voids are filled, wave of grout/slurry flushes ahead of the roller. Thickness of each layer should not be more than 100mm loose and measurement for Payment vill be made on compacted thickness. 3.05.8.1.01 Degree of Compation: Minimum 98% of MDD (Modified Proctor) cum 9,073.93 9,284.61 8,402.74 & 8,305.8.1.02 Degree of Compation: 100% of MDD (Modified Proctor) cum 9,583.74 9,805.48 8,881.00 \$ 3.05.8.1.02 WMMSC: Providing compacted Stone aggregate base course by supplying, spreading and compacting 38mm downgraded stone chips as specified in the relevant tiem of LCED road design standard or wet mix macadam specification (LAA value not exceeding 35% made of Crushed stone combining aggregates of different sizes to provide required grading and premixing with water at OMC in mechanical mix plant at stack yard including carriage of mixed materials by typer with proper covering to site, laying in uniform l	3.05.7.2.01	Degree of Compaction: Minimum 98% of MDD (Modified Proctor)	cum	7,468.51	7,452.95	7,177.92	7,177.92	
supplying, spreading and compacting 50mm downgraded crusher run stone chips as specified in the relevant item of LGED road design standard (LAA value not exceeding 35%), including supplying of required amount of 12mm downgraded chips made of same quality stone and Sand of minimum FM=0,00, including spreading uniformly in layers of specified loose thickness on road surface maintaining grade, camber and super elevation including local handling, hand packing, booming, watering, dry rolling followed by wet rolling in layers with 8-10 tonne road roller to attain each layer's minimum soaked CBR 90% or Design CBR at specified degree of compaction, blinding with choking material as filler material @0.018cum/sgm or as required including cost of materials, labours etc. all complete as per direction of the E-I-C. After adequate dry rolling spreading choking material on the surface, sprinkling water and rolling is to be continued until all the voids are filled, wave of grout/slurry flushes ahead of the roller. Thickness of each layer should not be more than 100mm loose and measurement for Payment will be made on compacted thickness. 3.05.8.1.01 Degree of Compation: Minimum 98% of MDD (Modified Proctor) cum 9,073.93 9,284.61 8,402.74 8. 3.05.8.1.02 Degree of Compation: Minimum 98% of MDD (Modified Proctor) cum 9,583.74 9,805.48 8,881.00 9. 3.05.8.1.02 WMMSC: Providing compacted Stone aggregate base course by supplying, spreading and compacting 38mm downgraded stone chips as specified in the relevant item of LGED road design standard or wet mix macadam specification (LAA value not exceeding 35% made of Crushed stone combining aggregates of different sizes to provide required grading and premixing with water at OMC in mechanical mix plant at stack yard including carriage of mixed material by tipper with proper covering to site, laying in uniform layers of specified loose thickness not more than 100mm with Grader in base course on well prepared surface and compacting with 8-10 none vibratory road roller to attain each layer	3.05.7.2.02	Degree of Compaction: 100% of MDD (Modified Proctor)	cum	7,998.35	7,982.44	7,694.78	7,694.78	
3.05.8.1.02 Degree of Compation: 100% of MDD (Modified Proctor) cum 9,583.74 9,805.48 8,881.00 S 3.05.8.2 WMMSC: Providing compacted Stone aggregate base course by supplying, spreading and compacting 38mm downgraded stone chips as specified in the relevant item of LGED road design standard or wet mix macadam specification (LAA value not exceeding 35% made of Crushed stone combining aggregates of different sizes to provide required grading and premixing with water at OMC in mechanical mix plant at stack yard including carriage of mixed material by tipper with proper covering to site, laying in uniform layers of specified loose thickness not more than 100mm with Grader in base course on well prepared surface and compacting with 8~10 tonne vibratory road roller to attain each layer's minimum soaked CBR 90% or Design CBR at specified degree of compaction including supplying all materials, carriage, labors, tools & equipment etc. all complete as per direction of the E-I-C.		supplying, spreading and compacting 50mm downgraded crusher run stone chips as specified in the relevant item of LGED road design standard (LAA value not exceeding 35%), including supplying of required amount of 12mm downgraded chips made of same quality stone and Sand of minimum FM=0.80, including spreading uniformly in layers of specified loose thickness on road surface maintaining grade, camber and super elevation including local handling, hand packing, booming, watering, dry rolling followed by wet rolling in layers with 8~10 tonne road roller to attain each layer's minimum soaked CBR 90% or Design CBR at specified degree of compaction, blinding with choking material as filler material @0.018cum/sqm or as required including cost of materials, labours etc. all complete as per direction of the E-I-C. After adequate dry rolling spreading choking material on the surface, sprinkling water and rolling is to be continued until all the voids are filled, wave of grout/slurry flushes ahead of the roller. Thickness of each layer should not be more than 100mm loose and measurement for Payment will be made on compacted thickness.						
3.05.8.2 WMMSC: Providing compacted Stone aggregate base course by supplying, spreading and compacting 38mm downgraded stone chips as specified in the relevant item of LGED road design standard or wet mix macadam specification (LAA value not exceeding 35% made of Crushed stone combining aggregates of different sizes to provide required grading and premixing with water at OMC in mechanical mix plant at stack yard including carriage of mixed material by tipper with proper covering to site, laying in uniform layers of specified loose thickness not more than 100mm with Grader in base course on well prepared surface and compacting with 8~10 tonne vibratory road roller to attain each layer's minimum soaked CBR 90% or Design CBR at specified degree of compaction including supplying all materials, carriage, labors, tools & equipment etc. all complete as per direction of the E-I-C.	3.05.8.1.01	Degree of Compation: Minimum 98% of MDD (Modified Proctor)	cum	9,073.93	9,284.61	8,402.74	8,616.25	
supplying, spreading and compacting 38mm downgraded stone chips as specified in the relevant item of LGED road design standard or wet mix macadam specification (LAA value not exceeding 35% made of Crushed stone combining aggregates of different sizes to provide required grading and premixing with water at OMC in mechanical mix plant at stack yard including carriage of mixed material by tipper with proper covering to site, laying in uniform layers of specified loose thickness not more than 100mm with Grader in base course on well prepared surface and compacting with 8~10 tonne vibratory road roller to attain each layer's minimum soaked CBR 90% or Design CBR at specified degree of compaction including supplying all materials, carriage, labors, tools & equipment etc. all complete as per direction of the E-I-C.	3.05.8.1.02	Degree of Compation: 100% of MDD (Modified Proctor)	cum	9,583.74	9,805.48	8,881.00	9,105.18	
3.05.8.2.01 Degree of Compaction: Minimum 98% of MDD (Modified Proctor) cum 9,993.64 10,145.43 9,065.46	3.05.8.2	supplying, spreading and compacting 38mm downgraded stone chips as specified in the relevant item of LGED road design standard or wet mix macadam specification (LAA value not exceeding 35% made of Crushed stone combining aggregates of different sizes to provide required grading and premixing with water at OMC in mechanical mix plant at stack yard including carriage of mixed material by tipper with proper covering to site, laying in uniform layers of specified loose thickness not more than 100mm with Grader in base course on well prepared surface and compacting with 8~10 tonne vibratory road roller to attain each layer's minimum soaked CBR 90% or Design CBR at specified degree of compaction including supplying all materials, carriage, labors, tools	cum					
	3.05.8.2.01	· · ·	cum	9,993.64	10,145.43	9,065.46	9,333.32	
		, , , , , , , , , , , , , , , , , , , ,					9,957.94	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
Section-06:	Surfacing Works		_				
3.06.1.1	PCHD@1.2: Providing Prime coat @1.2 liter/sqm with cut back bitumen to be prepared by cutting back 60/70 penetration grade straight run bitumen (conforming to the requirements of ASTM/ AASHTO in the ratio of 100 parts by volume of bitumen to 40-60 parts by volume of kerosene depending on the porosity of the surface and will be decided by field trials, the correct quantity that is completely absorbed within 24 hours including carefully cleaning of the surface of the granular base material to be primed and spraying cut back bitumen at a temperature from 100°C to 120°C by appropriate hand device, etc. complete as per direction of the E-I-C. [Retail]	sqm	153.99	152.89	155.45	155.45	
3.06.1.1.01	PCHD@1.2: Providing Prime coat @1.2 liter/sqm with cut back bitumen to be prepared by cutting back 60/70 penetration grade straight run bitumen (conforming to the requirements of ASTM/ AASHTO in the ratio of 100 parts by volume of bitumen to 40-60 parts by volume of kerosene depending on the porosity of the surface and will be decided by field trials, the correct quantity that is completely absorbed within 24 hours including carefully cleaning of the surface of the granular base material to be primed and spraying cut back bitumen at a temperature from 100°C to 120°C by appropriate hand device, etc. complete as per direction of the E-I-C. [Bulk]	sqm	151.04	148.97	152.51	152.51	
3.06.1.2	PCMD@1.2: Providing Prime coat @1.2 liter/sqm with cut back bitumen to be prepared by cutting back 60/70 penetration grade straight run bitumen (conforming to the requirements of ASTM/ AASHTO in the ratio of 100 parts by volume of bitumen to 40-60 parts by volume of kerosene depending on the porosity of the surface and will be decided by field trials, the correct quantity that is completely absorbed within 24 hours including carefully cleaning of the surface of the granular base material to be primed and spraying cut back bitumen at a temperature from 100°C to 120°C by mechanical distributor, etc. complete as per direction of the E-I-C.[Retail]	sqm	155.62	154.54	157.15	157.15	
3.06.1.2.01	PCMD@1.2: Providing Prime coat @1.2 liter/sqm with cut back bitumen to be prepared by cutting back 60/70 penetration grade straight run bitumen (conforming to the requirements of ASTM/ AASHTO in the ratio of 100 parts by volume of bitumen to 40-60 parts by volume of kerosene depending on the porosity of the surface and will be decided by field trials, the correct quantity that is completely absorbed within 24 hours including carefully cleaning of the surface of the granular base material to be primed and spraying cut back bitumen at a temperature from 100°C to 120°C by mechanical distributor, etc. complete as per direction of the E-I-C.[Bulk]	sqm	152.68	150.62	154.20	154.20	
3.06.2.1	TCHD@0.5: Providing tack coat @0.50kg/sqm with 60/70 penetration grade straight run bitumen complying with the requirements of ASTM/AASHTO applied by appropriate hand device at a temperature between 175°C and 185°C including heating bitumen, surface cleaning, etc. all complete as per direction of the E-I-C.[Retail]	sqm	64.89	64.16	65.62	65.62	
3.06.2.1.01	TCHD@0.5: Providing tack coat @0.50kg/sqm with 60/70 penetration grade straight run bitumen complying with the requirements of ASTM/AASHTO applied by appropriate hand device at a temperature between 175°C and 185°C including heating bitumen, surface cleaning, etc. all complete as per direction of the E-I-C.[Bulk]	sqm	63.04	61.71	63.77	63.77	
3.06.2.2	TCHD@0.75: Providing tack coat @0.75kg/sqm with 60/70 penetration grade straight run bitumen complying with the requirements of ASTM/AASHTO applied by appropriate hand device at a temperature between 175°C and 185°C including heating bitumen, surface cleaning, etc. all complete as per direction of the E-I-C.[Retail]	sqm	94.55	93.52	95.90	95.90	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.06.2.2.01	TCHD@0.75: Providing tack coat @0.75kg/sqm with 60/70 penetration grade straight run bitumen complying with the requirements of ASTM/AASHTO applied by appropriate hand device at a temperature between 175°C and 185°C including heating bitumen, surface cleaning, etc. all complete as per direction of the E-I-C.[Bulk]	sqm	91.79	89.84	93.14	93.14	
3.06.2.3	TCMD@0.5: Providing tack coat @0.50kg/sqm with 60/70 penetration grade straight run bitumen complying with the requirements of ASTM/AASHTO applied by mechanical distributor at a temperature between 175°C and 185°C including heating bitumen, surface cleaning, etc. all complete as per direction of the E-I-C.[Retail]	sqm	67.65	66.93	68.39	68.39	
3.06.2.3.01	TCMD@0.5: Providing tack coat @0.50kg/sqm with 60/70 penetration grade straight run bitumen complying with the requirements of ASTM/AASHTO applied by mechanical distributor at a temperature between 175°C and 185°C including heating bitumen, surface cleaning, etc. all complete as per direction of the E-I-C.[Bulk]	sqm	65.81	64.48	66.55	66.55	
3.06.2.4	TCMD@0.75: Providing tack coat @0.75kg/sqm with 60/70 penetration grade straight run bitumen complying with the requirements of ASTM/AASHTO applied by mechanical distributor at a temperature between 175°C and 185°C including heating bitumen, surface cleaning, etc. all complete as per direction of the E-I-C.[Retail]	sqm	97.32	96.29	98.67	98.67	
3.06.2.4.01	TCMD@0.75: Providing tack coat @0.75kg/sqm with 60/70 penetration grade straight run bitumen complying with the requirements of ASTM/AASHTO applied by mechanical distributor at a temperature between 175°C and 185°C including heating bitumen, surface cleaning, etc. all complete as per direction of the E-I-C.[Bulk]	sqm	94.56	92.61	95.91	95.91	
3.06.3.1	7mmSC: Providing 7mm thick (minimum) compacted pre-mixed bituminous seal coat to be prepared using 6.33mm down crushed stone chips & stone dust blended together to comply the gradation as specified in the relevant item of Road Design Standards, mixed with 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO, minimum @5.5% by weight of total mix or as determined by job mix design. The bitumen and chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The mixture of bitumen and chips shall be laid uniformly on the road surface in appropriate layer so as to produce the specified compacted thickness, rolling at a temperature not bellow 90°C with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to the desired compaction, including supplying of all materials, their carriage, labourers tools and equipment etc. all complete as per direction of the E-I-C [Excluding the cost of applying Prime/Tack coat].						
3.06.3.1.01	Bitumen Grade 60/70 [Retail]	sqm	178.23	176.74	177.69	178.12	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.06.3.2	15mmSC: Providing 15mm thick (minimum) compacted pre-mixed bituminous surfacing - wearing course to be prepared using 12mm down, 6mm downgraded crushed stone chips & Stone Dust to comply the gradation as specified in the relevant item of Road Design Standards, mixed with 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO, minimum @5.0% by weight of total mix or as determined by job mix design. The bitumen and chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The mixture of bitumen and chips shall be laid uniformly on the road surface in appropriate layer so as to produce the specified compacted thickness, rolling at a temperature not bellow 90°C with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to the desired compaction, including supplying of all materials, their carriage, labours, tools and equipment etc. all complete in all respect as per direction of the Engineer-in-charge. [Excluding the cost of applying Prime/Tack coat].						
3.06.3.2.01	Bitumen Grade 60/70 [Retail]	sqm	360.69	358.27	357.93	359.64	
3.06.3.2.02	Bitumen Grade 60/70 [Bulk]	sqm	354.20	349.62	351.44	353.15	
3.06.4.1	25mmBC: Providing 25mm thick (minimum) compacted pre-mixed bituminous carpeting to be prepared using 16mm downgraded stone-chips (LAA value not exceeding 30%) to comply the gradation as specified, mixed with heated bitumen of 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. The bitumen and stone-chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively before mixing. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The bitumen and stone-chips mixture shall be laid uniformly, maintaining specified camber, grade and super-elevation, only on the prepared and accepted base or surface in a single appropriate layer to give the specified compacted thickness. The mixture should be rolled with appropriate by Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to full compaction. The rolling temperature shall be maintained not below 90°C including supplying of all materials, their carriage, labourers, tools and equipment etc. all complete as per direction of the E-I-C. The bitumen in the mix shall be minimum (@4.5% to 5.5% by weight of total mix or as determined by job mix design. (In order to achieve the specified grading a blending of nominal maximum size of 16mm, 12mm, 6mm crushed stone chips and stone dust is suggested and proportion will have to determine by the laboratory analysis).						
3.06.4.1.01	Bitumen Grade 60/70 [Retail]	sqm	576.47	574.37	561.98	568.39	
3.06.4.1.02	Bitumen Grade 60/70 [Bulk]	sqm	567.96	563.02	553.47	559.88	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.06.4.2	25mmDC: Providing 25mm thick (minimum) compacted pre-mixed bituminous surfacing - wearing course with 16mm downgraded crushed stone chips complying with the specified grading requirement of the relevant item of Road Design standards, of LAA value <=30%, water absorption not >2%, flakiness index not >35% mixed with 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. The bitumen and stone-chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively before mixing. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The bitumen and stone-chips mixture shall be laid uniformly on the road surface in single appropriate layer to give specified compacted thickness maintaining specified camber, grade and super-elevation. The mixture should be rolled at a temperature not below 90°C with Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to full compaction, including supplying of all materials, their carriage, labourers tools and equipment etc. all complete as per the direction of the E-I-C. The bitumen in the mix shall be between 5.0% to 5.5% by weight of total mix or as determined by job mix design. (In order to achieve the specified grading a blending of nominal maximum size of 16mm, 12mm, 6mm crushed stone chips and stone dust is suggested and proportion will have to determine by the laboratory analysis).						
3.06.4.2.01	Bitumen Grade 60/70 [Retail]	sqm	641.75	638.72	629.41	635.38	
3.06.4.2.02	Bitumen Grade 60/70 [Bulk]	sqm	630.89	624.24	618.56	624.52	
3.06.5.1	40mmBC (BG-60/70): Providing 40mm thick (minimum) compacted pre-mixed bituminous carpeting to be prepared using 25mm downgraded crushed stone chips (LAA value <= 30%) to comply the gradation as specified, mixed with heated bitumen of 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. The bitumen and stone-chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively before mixing. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The bitumen and stone-chips mixture shall be laid uniformly, maintaining specified camber, grade and super-elevation only on the prepared and accepted base or surface in a single appropriate layer to give the specified compacted thickness. The mixture should be rolled with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to full compaction. The rolling temperature shall be maintained not below 90°C. including supplying of all materials, their carriage, labourers, tools and equipment etc. all complete as per direction of the E-I-C. The bitumen in the mix shall be between @4.5% to 5.5% by weight of total mix or as determined by job mix design. (In order to achieve the specified grading a blending of nominal maximum size of 25mm, 19mm, 12mm, 6mm crushed stone chips and stone dust is suggested and proportion will have to determine by the laboratory analysis).[Retail]	sqm	912.23	910.75	887.64	896.57	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.06.5.1.01	40mmBC (BG-60/70): Providing 40mm thick (minimum) compacted pre-mixed bituminous carpeting to be prepared using 25mm downgraded crushed stone chips (LAA value <= 30%) to comply the gradation as specified, mixed with heated bitumen of 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. The bitumen and stone-chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively before mixing. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The bitumen and stone-chips mixture shall be laid uniformly, maintaining specified camber, grade and super-elevation only on the prepared and accepted base or surface in a single appropriate layer to give the specified compacted thickness. The mixture should be rolled with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to full compaction. The rolling temperature shall be maintained not below 90°C. including supplying of all materials, their carriage, labourers, tools and equipment etc. all complete as per direction of the E-I-C. The bitumen in the mix shall be between @4.5% to 5.5% by weight of total mix or as determined by job mix design. (In order to achieve the specified grading a blending of nominal maximum size of 25mm, 19mm, 12mm, 6mm crushed stone chips and stone dust is suggested and proportion will have to determine by the laboratory analysis).[Bulk]	sqm	898.68	892.68	874.09	883.02	
3.06.5.2	40mmDC (BG-60/70): Providing 40mm thick (minimum) compacted pre-mixed bituminous surfacing - wearing course with 25mm downgraded crushed stone chips (LAA value <= 30%) complying with the specified grading requirement of the relevant item of Road Design standards, water absorption not >2%, flakiness index not >35% mixed with 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. The bitumen and stone-chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively before mixing. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The bitumen and stone-chips mixture shall be laid uniformly on the road surface in single appropriate layer to give specified compacted thickness, maintaining specified camber, grade and super-elevation. The mixture should be rolled at a temperature not below 90°C with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to full compaction, including supplying of all materials, their carriage, labourers tools and equipment etc. all complete as per the direction of the E-I-C. The bitumen in the mix shall be between @ 5.0% to 5.5% by weight of total mix or as determined by job mix design. (In order to achieve the specified grading a blending of nominal maximum size of 25mm, 19mm, 12mm, 6mm crushed stone chips and stone dust is suggested and proportion will have to determine by the laboratory analysis).[Retail]	sqm	1,008.42	1,005.76	986.24	994.68	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.06.5.2.01	40mmDC (BG-60/70): Providing 40mm thick (minimum) compacted pre-mixed bituminous surfacing - wearing course with 25mm downgraded crushed stone chips (LAA value <= 30%) complying with the specified grading requirement of the relevant item of Road Design standards, water absorption not >2%, flakiness index not >35% mixed with 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. The bitumen and stone-chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively before mixing. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The bitumen and stone-chips mixture shall be laid uniformly on the road surface in single appropriate layer to give specified compacted thickness, maintaining specified camber, grade and super-elevation. The mixture should be rolled at a temperature not below 90°C with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to full compaction, including supplying of all materials, their carriage, labourers tools and equipment etc. all complete as per the direction of the E-I-C. The bitumen in the mix shall be between @ 5.0% to 5.5% by weight of total mix or as determined by job mix design. (In order to achieve the specified grading a blending of nominal maximum size of 25mm, 19mm, 12mm, 6mm crushed stone chips and stone dust is suggested and proportion will have to determine by the laboratory analysis).[Bulk]	sqm	991.74	983.52	969.56	978.00	
3.06.6	50mmBC (BG-60/70): Providing 50mm thick (minimum) compacted pre-mixed bituminous carpeting to be prepared using 25mm downgraded stone-chips (LAA value <= 30%) of gradation as specified, mixed with heated bitumen of 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. The bitumen and stone-chips shall be separately heated to a temperature 140°C – 150°C and 150°C – 170°C respectively before mixing. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The bitumen and stone-chips mixture shall be laid uniformly, maintaining specified camber, grade and super-elevation only on the prepared and accepted base or surface in a single appropriate layer to give the specified compacted thickness. The mixture should be rolled with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to full compaction. The rolling temperature shall be maintained not below 90°C including supplying of all materials, their carriage, labourers, tools and equipment etc. all complete as per direction of the E-I-C. The bitumen in the mix shall be between @4.5% to 5.5% by weight of total mix or as determined by job mix design. (In order to achieve the specified grading a blending of nominal maximum size of 25mm,19mm, 12mm, 6mm crushed stone chips and stone dust is suggested and proportion will have to determine by the laboratory analysis).[Retail]	sqm	1,140.56	1,139.21	1,107.87	1,119.10	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.06.6.01	50mmBC (BG-60/70): Providing 50mm thick (minimum) compacted pre-mixed bituminous carpeting to be prepared using 25mm downgraded stone-chips (LAA value <= 30%) of gradation as specified, mixed with heated bitumen of 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. The bitumen and stone-chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively before mixing. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The bitumen and stone-chips mixture shall be laid uniformly, maintaining specified camber, grade and super-elevation only on the prepared and accepted base or surface in a single appropriate layer to give the specified compacted thickness. The mixture should be rolled with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to full compaction. The rolling temperature shall be maintained not below 90°C including supplying of all materials, their carriage, labourers, tools and equipment etc. all complete as per direction of the E-I-C. The bitumen in the mix shall be between @4.5% to 5.5% by weight of total mix or as determined by job mix design. (In order to achieve the specified grading a blending of nominal maximum size of 25mm,19mm, 12mm, 6mm crushed stone chips and stone dust is suggested and proportion will have to determine by the laboratory analysis).[Bulk]	sqm	1,123.62	1,116.63	1,090.93	1,102.16	
3.06.7	DCPM: Providing and Laying pre-mixed dense bituminous surfacing - wearing course with hot mix plant using coarse aggregate, fine aggregate, filler and bituminous binder as per design Job Mix Formula conforming Marshall Method as per specification, LAA value of aggregate should be <=30%, water absorption not >2%, flakiness index not >35% mixed with 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. Including screening, cleaning of chips and preparing a uniform and quality mix in Hot Mix Plant and ensuring a homogenous mix, in which all particles of the mineral aggregates are coated uniformly, carrying the hot premixed materials by means of Dump/tipper truck, spreading the mixed materials at specified laying temperature with a hydrostatic paver finisher with sensor control to the required grade, level and alignment over the prepared surface tamping and finishing the mix at specified compacted thickness, maintaining specified camber, grade, super-elevation and cross section, through rolling with appropriate Steel Drum Roller & pneumatic multiple tire roller (8-10 tons) to full compaction, for break down, inter - mediate and finished rolling to achieve the desired density of at least 98% of that of Laboratory Marshall specimen, hand packing and pinning to give an even surface, including cost of all materials, their carriages, hire charges of Hot Mix Plant and all other machines, equipment for construction and quality control as per specification, fuels, lubricants and wages of operational staff etc. all complete as per the direction of the E-I-C.						
3.06.7.01	Bitumen Grade 60/70 [Retail]	cum	27,166.82	27,081.20	26,734.73	26,988.55	

Item Code	Brief Description of Item	Unit		Ra	ate	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.06.8	BMPM: Providing and Laying pre-mixed bituminous macadam with hot mix plant using coarse aggregate, fine aggregate, filler and bituminous binder as per design Job Mix Formula conforming Marshall Method as per specification, LAA value of aggregate should be <=35%, water absorption not >2%, flakiness index not >35% mixed with 60/70 penetration grade straight run bitumen satisfying the requirements of ASTM/AASHTO. including screening, cleaning of chips and preparing a uniform and quality mix in Hot Mix Plant and ensuring a homogenous mix, in which all particles of the mineral aggregates are coated uniformly, carrying the hot premixed materials by means of Dump/tipper truck, spreading the mixed materials at specified laying temperature with a hydrostatic paver finisher with sensor control to the required grade, level and alignment over the prepared surface, tamping and finishing the mix at specified compacted thickness, maintaining specified camber, grade, superelevation and cross section, through rolling with appropriate Steel Drum Roller & pneumatic multiple tire roller (8-10 tons) to full compaction, for break down, inter - mediate and finished rolling to achieve the desired density of at least 98% of that of Laboratory Marshall specimen, hand packing and pinning to give an even surface, including cost of all materials, their carriages, hire charges of Hot Mix Plant and all other machines, equipment for construction and quality control as per specification, fuels, lubricants and wages of operational staff etc. all complete as per the direction of the E-I-C.					
3.06.8.1	A. For Grading -1 (25mm nominal size, 50-75mm thick) [Bitumen Grade 60/70, Retail]	cum	25,816.16	25,886.82	25,259.37	25,603.09
3.06.8.2	B. For Grading -2 (40mm nominal size, 75-100mm thick.) [Bitumen Grade 60/70, Retail]	cum	25,632.57	25,648.15	24,920.91	25,256.35
3.06.8.3	C. For Grading -1 (25mm nominal size, 50-75mm thick) [Bitumen Grade 60/70, Bulk]	cum	25,477.35	25,435.07	24,920.56	25,264.28
3.06.8.4	D. For Grading -2 (40mm nominal size, 75-100mm thick.) [Bitumen Grade 60/70, Bulk]	cum	25,302.45	25,207.99	24,590.79	24,926.23
Section-07:	Concrete Pavement					
3.07.1	PS: Supplying and laying of single layer polythene sheet weighing one kilogram per 6.5 square meter in floor or any where below cement concrete complete in all respect and accepted by Engineer-in-charge. [PWD 03.7]	sqm	46.83	46.52	46.07	46.07
3.07.2.1	RCC-17BCCM(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared sub-base with picked brick chips and minimum cement contents relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.45 having minimum required average strength fcr = 24 Mpa and satisfying specified minimum compressive strength fc = 17 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, best quality sand [50% quantity of medium sand (FM. 1.2) and 50% quantity of coarse sand of equivalent FM = 2.2] and 25mm down well graded picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming ASTM C-33 including breaking chips and screening, making, placing steel shutter in position and maintaining true to the alignment, making shutter water-tight properly, placing reinforcement in position, mixing in a batching and mixing plant as per approved mix design unless otherwise approved by the Engineer, transported to site, laid with a fixed form, compacting by vibrator machine and finished in a continuous operation including provision of contraction, expansion and longitudinal joints, joint filler, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, as per drawing complete, etc. all complete approved and accepted by the E-I-C. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. (Rate is excluding the cost of all reinforcement and its fabrication, admixtures and joint sealant, etc.) [Retail]	cum	11,201.46	11,131.99	10,843.94	10,832.80

Item Code	Brief Description of Item	Unit		Ra	ite	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.07.2.1.01	RCC-17BCCM(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared sub-base with picked brick chips and minimum cement contents relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.45 having minimum required average strength for = 24 Mpa and satisfying specified minimum compressive strength for = 17 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, best quality sand [50% quantity of medium sand (FM. 1.2) and 50% quantity of equivalent FM = 2.2] and 25mm down well graded picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming ASTM C-33 including breaking chips and screening, making, placing steel shutter in position and maintaining true to the alignment, making shutter water-tight properly, placing reinforcement in position, mixing in a batching and mixing plant as per approved mix design unless otherwise approved by the Engineer, transported to site, laid with a fixed form, compacting by vibrator machine and finished in a continuous operation including provision of contraction, expansion and longitudinal joints, joint filler, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, as per drawing complete, etc. all complete approved and accepted by the E-I-C. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. (Rate is excluding the cost of all reinforcement and its fabrication, admixtures and joint sealant, etc.) [BulkI]	cum	10,932.55	10,863.59	10,577.69	10,566.63
3.07.2.2	RCC-20BCCM(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared sub-base with picked brick chips and minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, fcr = 28.5 Mpa and satisfying a compressive strength fc = 20 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, with best quality coarse sand (FM. 2.2) and 25mm down well graded picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming steel shutter in position and maintaining true to the alignment, making shutter water-tight properly, placing reinforcement in position, mixing in a batching and mixing plant as per approved mix design unless otherwise approved by the Engineer, transported to site, laid with a fixed form, compacting by vibrator machine and finished in a continuous operation including provision of contraction, expansion and longitudinal joints, joint filler, joint sealant, de-bonding strip, dowel bar, tie rod, admixtures as approved, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, as per drawing complete, etc. all complete approved and accepted by the E-I-C. Additional quantity of cement to be added if required to attain the specified strength at the contractors own cost. (Rate is excluding the cost of all reinforcement and its fabrication, admixtures and joint sealant, etc.) [Retail]	cum	11,911.68	11,860.82	11,570.36	11,563.98

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.07.2.2.01	RCC-20BCCM(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared sub-base with picked brick chips and minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, for = 28.5 Mpa and satisfying a compressive strength fc = 20 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, with best quality coarse sand (FM. 2.2) and 25mm down well graded picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming ASTM C-33 including breaking chips and screening, making, placing steel shutter in position and maintaining true to the alignment, making shutter water-tight properly, placing reinforcement in position, mixing in a batching and mixing plant as per approved mix design unless otherwise approved by the Engineer, transported to site, laid with a fixed form, compacting by vibrator machine and finished in a continuous operation including provision of contraction, expansion and longitudinal joints, joint filler, joint sealant, de-bonding strip, dowel bar, tie rod, admixtures as approved, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, as per drawing complete, etc. all complete approved and accepted by the E-I-C. Additional quantity of cement to be added if required to attain the specified strength at the contractors own cost. (Rate is excluding the cost of all reinforcement and its fabrication, admixtures and joint sealant, etc.) [Bulk]	cum	11,586.89	11,536.42	11,248.12	11,241.78	
3.07.3.1	RCC-20SCBP(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared sub-base with crushed stone chips and minimum cement content relates to mix ratio 1:2:4 and maximum water cement ratio 0.4 having minimum required average strength, fcr = 28.5 Mpa and satisfying a compressive strength fc = 20 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), using coarse sand of minimum FM 2.50 and graded stone aggregate of 38 mm nominal size (LAA value not exceeding 30) in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, mixing in mechanized batch mix plant, transported to site, laid with a fixed form (pumping using line pump or boom placer), laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/camber/super elevation, finishing with required texture, including steel form work with sturdy M.S. channel sections, making provision for expansion, construction, longitudinal joints, including groove cutting by groove/saw cutting machine for contraction joints (12 mm wide x 50 mm deep), providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and its fabrication, placing, binding and, dowel bar for expansion/longitudinal joints and joint sealant etc. is not included but the cost of admixture is included in this unit rate. The Mix Design has to be approved by the Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before e	cum	16,210.36	16,330.30	15,313.13	15,527.03	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.07.3.1.01	RCC-20SCBP(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared sub-base with crushed stone chips and minimum cement content relates to mix ratio 1:2:4 and maximum water cement ratio 0.4 having minimum required average strength, for = 28.5 Mpa and satisfying a compressive strength fc = 20 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), using coarse sand of minimum FM 2.50 and graded stone aggregate of 38 mm nominal size (LAA value not exceeding 30) in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, mixing in mechanized batch mix plant, transported to site, laid with a fixed form (pumping using line pump or boom placer), laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/camber/super elevation, finishing with required texture, including steel form work with sturdy M.S. channel sections, making provision for expansion, construction, longitudinal joints, including groove cutting by groove/saw cutting machine for contraction joints (12 mm wide x 50 mm deep), providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and its fabrication, placing, binding and, dowel bar for expansion/longitudinal joints and joint sealant etc. is not included but the cost of admixture is included in this unit rate. The Mix Design has to be approved by the Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before e	cum	15,552.69	15,669.13	14,681.59	14,889.26	
3.07.3.10	Supplying different inside dia best quality uPVC pressure pipe having specific gravity 1.35 - 1.45, and other physical, chemical, themal, fire resistivity properties etc. as per BSTI approved manufacturer standards or ASTM, BS/ISO/IS standards fitted and fixed in position with sockets, bends, with all accessories such as Round grating/domed roof grating, bends, sockets etc. approved and accepted by the Engineer-in-charge. [PWD 26.45]	m					
3.07.3.10.1	12 mm dia wall thickness 1.7 mm - 2.8 mm	m	128.50	126.49	121.79	121.79	
3.07.3.10.2	19 mm dia wall thickness 1.9 mm - 2.9 mm	m	145.61	143.59	138.89	138.89	
3.07.3.10.3	25 mm dia wall thickness 2.2 mm - 3.4 mm	m	186.66	184.65	179.95	179.95	
3.07.3.10.4	32 mm dia wall thickness 2.7 mm - 3.6 mm	m	217.24	215.23	210.53	210.53	
3.07.3.10.5	37 mm dia wall thickness 2.5 mm - 3.1 mm	m	240.18	238.17	233.47	233.47	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.07.3.2	RCC-25SCBP(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared sub-base with crushed stone chips and minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, for = 33.5 Mpa and satisfying a compressive strength fc = 25 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), using coarse sand of minimum FM 2.50 and graded stone aggregate of 38mm nominal size (LAA value not exceeding 30) in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, mixing in mechanized batch mix plant, transported to site, laid with a fixed form (pumping using line pump or boom placer), laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/camber/super elevation, finishing with required texture, including steel form-work with sturdy M.S. channel sections, making provision for expansion, construction, longitudinal joints, including groove cutting by groove/saw cutting machine for contraction joints (12 mm wide x 50 mm deep), providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification, placing, binding and, dowel bar for expansion/longitudinal joints and joint sealant etc. is not included but the cost of admixture is included in this unit rate. The Mix Design has to be approved by the Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. All complete approved and accepted by the E-I-C.	cum	17,162.73	17,283.37	16,247.57	16,466.23	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.07.3.2.01	RCC-25SCBP(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared sub-base with crushed stone chips and minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, for = 33.5 Mpa and satisfying a compressive strength fc = 25 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), using coarse sand of minimum FM 2.50 and graded stone aggregate of 38mm nominal size (LAA value not exceeding 30) in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, mixing in mechanized batch mix plant, transported to site, laid with a fixed form (pumping using line pump or boom placer), laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/camber/super elevation, finishing with required texture, including steel form-work with sturdy M.S. channel sections, making provision for expansion, construction, longitudinal joints, including groove cutting by groove/saw cutting machine for contraction joints (12 mm wide x 50 mm deep), providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification, placing, binding and, dowel bar for expansion/longitudinal joints and joint sealant etc. is not included but the cost of admixture is included in this unit rate. The Mix Design has to be approved by the Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. All complete approved and accepted by the E-I-C.	cum	16,426.73	16,543.86	15,538.23	15,750.52	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.07.3.3	RCC-30SCBP(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared base/sub-base with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 38.5 Mpa and satisfying a specified compressive strength, fcr = 30 Mpa at 28 days on standard cylinder as per standard practice of Code AASHTO/ASTM and cement conforming to BDS EN 197-1: 2003 CEM-152.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/G under ASTM C-494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self-compacting concrete), using coarse sand of minimum FM 2.50 and graded stone aggregate of 38 mm nominal size (LAA value not exceeding 30) in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, mixing in mechanized batch mix plant, transported to site, laid with a fixed form (pumping using line pump or boom placer), laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/camber/super elevation, finishing with required texture, including steel form-work with sturdy M.S. channel sections, making provision for expansion, construction, longitudinal joints, including groove cutting by groove/saw cutting machine for contraction joints (12 mm wide x 50 mm deep), providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification, placing, binding and, dowel bar for expansion/longitudinal joints and joint sealant etc. is not included but the cost of admixture is included in this unit rate. Note: minimum Cement content considered in M-30 is @ 440kg/cum. Additional quantity of cement to be added if required to attain the requ	cum	18,321.96	18,414.62	17,432.07	17,630.59	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.07.3.3.01	RCC-30SCBP(RW): Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared base/sub-base with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 38.5 Mpa and satisfying a specified compressive strength, fcr = 30 Mpa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/ G under ASTM C-494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self-compacting concrete), using coarse sand of minimum FM 2.50 and graded stone aggregate of 38 mm nominal size (LAA value not exceeding 30) in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, mixing in mechanized batch mix plant, transported to site, laid with a fixed form (pumping using line pump or boom placer), laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/camber/super elevation, finishing with required texture, including steel form-work with sturdy M.S. channel sections, making provision for expansion, construction, longitudinal joints, including groove cutting by groove/saw cutting machine for contraction joints (12 mm wide x 50 mm deep), providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and its fabrication, placing, binding and, dowel bar for expansion/longitudinal joints and joint sealant etc. is not included but the cost of admixture is included in this unit rate. Note: minimum Cement content considered in M-30 is @ 440kg/cu	cum	17,353.94	17,443.91	16,489.97	16,682.71	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.07.3.6.01	Marine Concrete_RCC-30SCBP: Providing and laying reinforced, dowel jointed, cement concrete pavement over a prepared base/subbase with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 40 Mpa and satisfying a specified compressive strength, fcr = 30 Mpa at 28 days on standard cylinder as per standard practice of Code AASHTO/ASTM and cement conforming to BDS EN 197-1: 2003 -CEMI-II/B-V and adding high range water reducing admixture of complying type F/G under ASTM C-494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self-compacting concrete), using coarse sand of minimum FM 2.50 and graded stone aggregate of 38 mm nominal size (LAA value not exceeding 25) in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, mixing in mechanized batch mix plant, transported to site, laid with a fixed form (pumping using line pump or boom placer), laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/camber/super elevation, finishing with required texture, including steel form- work with sturdy M.S. channel sections, making provision for expansion, construction, longitudinal joints, including groove cutting by groove/saw cutting machine for contraction joints (12 mm wide x 50 mm deep), providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and its fabrication, placing, binding and, dowel bar for expansion/longitudinal joints and joint sealant etc. is not included but the cost of admixture is included in this unit rate. Note: minimum Cement content considered in M-30 is @ 450kg/cu	cum	18 447 08	18 530 74	17 557 10	17 765 10	
3.07.3.6.01	Specified Compressive Strength f'c=30MPa and Mix design Compressive Strength fcr=40MPa. [Retail]	cum	18,447.08	18,539.74	17,557.19	17,765.19	
3.07.3.6.02	Specified Compressive Strength fc=30MPa and Mix design Compressive Strength fcr=40MPa. [Bulk]	cum	17,633.70	17,723.67	16,769.73	16,971.68	
3.07.3.9	ExJFill: Providing expansion/longitudinal joints sealing by Joint sealing compound for expansion or longitudinal joints as shown in the relevant drawings, including cleaning joints by brush on the concrete surface and cleaning all loose materials on the existing concrete surface and wash it by water jet, excess water removed by air jet or drying, including supplying and applying approved joint filler & sealant materials, sealant must comply with international standards, including supplying of all materials, their carriage, labourers, tools and equipment etc. all complete as per the direction of the E-I-C.	m					
3.07.3.9.01	Bitumen Sealant	m	96.99	96.14	93.62	93.62	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.07.4	KS(RW): Manufacturing, Supplying and Fixing of cement concrete kerb stone with top and bottom thickness 120mm and 150mm respectively, width 380mm and height 550mm as per approved drawing for side of footpath/median/road island etc. using steel shutter, with 6mm downgraded Stone Chips of LAA value ≤35%, sand (FM>=2.2) and minimum cement conforming to BDS EN 197-1 : 2003 CEM-II/A-M 42.5N content relates to mix ratio 1:2:4 satisfying specified minimum required average strength, fcr = 28.5 MPa and satisfying a compressive strength fc = 20 MPa at 28 days on standard cylinders, including grading, washings stone chips, mixing in standard mixture machine, casting in forms, making shutter watertight properly, compacting by vibrator machine and curing for at least 28 days, including preparation kerb foundation, true to level, maintaining alignment and height, including carrying and placing kerb stone, filling interstices of kerb stone tightly with cement mortar (1:4), raking out joints, cleaning and soaking kerb stone at least for 24 hours before use, curing for requisite period, etc. all complete as per drawing and direction of the E-I-C.	m	1,222.81	1,213.59	1,172.27	1,187.89	
Section-08:	Herring Bone Bond (HBB) Road						
3.08.1.1	PiBFS: Labour charge for picking up the existing brick flat (BFS) soling and staking the materials at a specified distance, etc. all complete as per direction of the E-I-C.	sqm	22.27	21.87	20.25	20.25	
3.08.1.2	PiHBB: Labour charge for picking up the existing HBB and staking the materials at a specified distance, etc. all complete as per direction of the E-I-C.	sqm	33.74	33.13	30.68	30.68	
3.08.2.1	ReBFS(FM-0.50): Labour charge for Resetting of Single layer brick flat soling (BFS) with 1st class or picked bricks, true to level, maintaining camber/super elevation and grade including carrying bricks, supplying and filling the interstices tightly with sand of minimum FM 0.50, etc. all complete as per direction of the E-I-C.	sqm	50.28	49.76	46.60	46.60	
3.08.2.2	ReBFS(FM-0.80): Labour charge for Resetting of Single layer brick flat soling (BFS) with 1st class or picked bricks, true to level, maintaining camber/super elevation and grade including carrying bricks, supplying and filling the interstices tightly with sand of minimum FM 0.80, etc. all complete as per direction of the E-I-C.	sqm	51.02	50.45	47.03	47.03	
3.08.2.3	ReBFS(FM<0.50): Labour charge for Resetting of Single layer brick flat soling (BFS) with 1st class or picked bricks, true to level, maintaining camber/super elevation and grade including carrying bricks, supplying and filling the interstices tightly with locally available sand (passing <=15% through #200 sieve), etc. all complete as per direction of the E-I-C.	sqm	49.14	47.87	44.64	45.28	
3.08.3.1	ReHBB(FM-0.50): Labour charge for Resetting of Brick on edge pavement in single layer of Herring Bone Bond (HBB) with 1st class or picked bricks true to level, maintaining camber, super elevation and grade over 25mm thick sand (minimum FM 0.50) cushion including filling the interstices tightly with same type of sand, etc. including supplying sand all complete as per direction of the E-I-C.	sqm	101.68	100.85	94.63	94.63	
3.08.3.2	ReHBB(FM-0.80): Labour charge for Resetting of Brick on edge pavement in single layer of Herring Bone Bond (HBB) with 1st class or picked bricks true to level, maintaining camber, super elevation and grade over 25mm thick sand (minimum FM 0.80) cushion including filling the interstices tightly with same type of sand, etc. including supplying sand all complete as per direction of the E-I-C.	sqm	103.40	102.46	95.62	95.62	
3.08.3.3	ReHBB(FM<0.50): Labour charge for Resetting of Brick on edge pavement in single layer of Herring Bone Bond (HBB) with 1st class or picked bricks true to level, maintaining camber, super elevation and grade over 25mm thick locally available sand (passing<=15% through #200 sieve) cushion including filling the interstices tightly with same type of sand, etc. including supplying sand all complete as per direction of the E-I-C.	sqm	99.00	96.45	90.06	91.54	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.08.4.1	SBFS(FM-0.50): Providing Single layer brick flat soling (BFS) with 1st class or picked bricks, true to level, maintaining camber/super elevation and grade including carrying bricks, filling the interstices tightly with sand of minimum FM 0.50, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.	sqm	544.78	544.25	522.08	522.08	
3.08.4.2	SBFS(FM-0.80): Single layer brick flat soling in road work with first class or picked jhama bricks as per alignment, camber and grade including filling joints with sand (F.M. 0.80) etc. complete including cost of all materials and accepted by the Engineer-in-charge. [PWD 24.4.1]	sqm	666.90	664.31	638.19	638.19	
3.08.4.3	SBFS(FM<0.50): Providing Single layer brick flat soling (BFS) with 1st class or picked bricks, true to level, maintaining camber/super elevation and grade including carrying bricks, filling the interstices tightly with locally available sand (passing <=15% through#200 sieve), etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.	sqm	543.63	542.37	520.12	520.75	
3.08.5.1	SHBB(FM-0.50): Providing Brick on edge pavement in single layer of Herring Bone Bond (HBB) with 1st class or picked bricks true to level, maintaining camber, super elevation and grade, including supplying and laying 25mm thick sand (minimum FM 0.50) cushion over the BFS, filling the interstices tightly with same type of sand, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.	sqm	931.15	930.32	892.20	892.20	
3.08.5.2	SHBB(FM-0.80): Brick on edges pavement in herring bone bond (HBB) with first class or picked jhama bricks as per alignment, camber and grade over 12 mm thick sand cushion (F.M. 0.80) including filling the joints with the same sand including cost of all materials and accepted by the Engineer-in-charge. [PWD 24.5.1]	sqm	1,093.17	1,090.63	1,047.26	1,047.26	
3.08.5.3	SHBB(FM<0.50): Providing Brick on edge pavement in single layer of Herring Bone Bond (HBB) with 1st class or picked bricks true to level, maintaining camber, super elevation and grade, including supplying and laying 25mm thick sand (passing<=15% through #200 sieve) cushion over the BFS, filling the interstices tightly with same type of sand, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.	sqm	928.47	925.92	887.63	889.10	
Section-09:	Concrete Block Road	•	•	•	•		
3.09.02	PiCCB(cum): Labour charge for picking up the existing CC Block of any sizes on soling or slope of embankment, including staking the materials at a specified distance, etc. all complete as per direction of the E-I-C.	cum	452.16	443.94	411.05	411.05	
3.09.04	ReCCB(cum): Labour charge for Setting/Resetting of single layer CC Block of different sizes on road top, including preparation base, true to level, maintaining camber, super elevation, grade, watering and ramming the base, including carrying CC blocks, supplying and filling the interstices tightly with sand (FM - 0.5), etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.	cum	1,143.66	1,120.66	1,044.27	1,044.27	
3.09.05	CCBSS-PW: Manufacturing and supplying Plain Cement Concrete (PCC) Blocks with cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, using steel shutter, with 40mm downgraded Stone Shingles, sand (FM>=1.5) and minimum cement content relates to mix ratio 1:3.6 satisfying specified minimum compressive strength 10.0Mpa at 28 days, including grading, washings shingles, mixing in standard mixture machine, casting in forms, making shutter watertight properly, compacting by vibrator machine and curing for at least 28 days, including preparation of platform, shuttering and stacking in measurable stacks etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.						
3.09.05.1	PCC Block Size: 400mmX200mmX150mm	each	135.14	134.61	131.22	132.08	
3.09.05.2	PCC Block Size: 375mmX100mmX225mm	each	99.09	98.64	96.00	96.61	
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Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.09.06.1	CCBSS-EE: Providing PCC Block on End Edging (100mm across) of size (375mmX100mmX225mm), including manufacturing and supplying Plain Cement Concrete (PCC) Blocks with cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, using steel shutter, with 40mm down graded Stone Shingles, sand (FM>=1.5) and minimum cement content relates to mix ratio 1:3.6 satisfying specified minimum compressive strength 10.0Mpa at 28 days, including cutting trenches true to level & grade, removing earth, refilling & ramming the sides properly, including supplying and filling the gaps with local sand (FM - 0.5), etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-incharge.	m	339.34	336.92	324.38	325.99	
3.09.06.2	CCBSS-EE-SR: Providing CC Block on End Edging (average 125mm across) for submersible road of size [L: 1000mmXH: 500mmXW:(100mm+150mm)], including manufacturing and supplying Plain Cement Concrete (PCC) Blocks with cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, using steel shutter, with 40mm down graded Stone Shingles, sand (FM>=1.5) and minimum cement content relates to mix ratio 1:3.6 satisfying specified minimum compressive strength 10.0Mpa at 28 days, including cutting trenches true to level & grade, removing earth, refilling & ramming the sides properly, including supplying and filling the gaps with local sand (FM - 0.5), etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-incharge.	m	909.13	902.66	870.11	874.61	
3.09.07	CCBSC-RW: Manufacturing and supplying Plain Cement Concrete (PCC) Blocks with cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, for road pavement works using steel shutter, with 40mm down graded Stone Chips, sand (FM>=1.8) and minimum cement content relates to mix ratio 1:2:4 satisfying specified minimum compressive strength 20.0Mpa at 28 days, including grading, washings stone chips, mixing in standard mixture machine, casting in forms, making shutter water-tight properly, compacting by vibrator machine and curing for at least 28 days, including preparation of platform, shuttering and stacking in measurable stacks etc.all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. [Excluding the cost of labour charge for block setting].						
3.09.07.1	PCC Block Size: 375mmX225mmX150mm	each	185.47	187.41	173.56	176.92	
3.09.08	CCBSC-RW: Providing single layer PCC Block on road top of size (375mmX225mmX150mm), including manufacturing and supplying Plain Cement Concrete (PCC) Blocks with cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, using steel shutter, with 40mm down graded Stone Chips, sand (FM>=1.8) and minimum cement content relates to mix ratio 1:2.4 satisfying specified minimum compressive strength 20.0Mpa at 28 days, including preparation of bed by cutting or filling with ramming the filled up earth to the same profile as that of the finished pavement, including carrying and placing PCC blocks, filling the interstices tightly with sand (FM - 0.5), etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.	sqm	2,245.56			2,135.03	
3.09.09	LC-CCB: Labour charge for laying single layer CC Block of different sizes for protective wall, including preparation trenches, true to level, maintaining alignment, watering and ramming the base, including carrying and placing CC blocks, filling minimum 65% interstices of CC Block work tightly with cement mortar (1:6), raking out joints, cleaning and soaking Block at least for 24 hours before use, washing of sand, curing for requisite period, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-incharge. [Excluding the cost of CC Blocks].	cum	2,125.46	2,087.88	1,966.04	1,966.04	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.09.15	Uni-Block Paver: Supplying and laying factory made cement concrete interlocking high strength as specified paver universal uniblock made by block making machine with mechanically compressed with high load- bearing capacity, enriched weather resistance, the low water absorption capacity of standard thick and approved design/shape, size in required long lasting colour, texture and pattern conforming BS-6717 or as specified approved by the E-I-C, laid over the prepared sand bedding layer maintaining grade, camber and super-elevation, including cleaning etc. all complete in all respect as per drawing, specification, direction and accepted by the Engineer-incharge. Cost included all materials, their carriages, hire charges of machineries, equipment for construction and quality control as per specification, wages of labour and operational staff etc.						
3.09.15.01	60mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 25MPa	sqm	1,117.09	1,111.70	1,100.05	1,099.28	
3.09.15.02	60mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 25MPa	sqm	1,239.79	1,234.40	1,222.76	1,221.98	
3.09.15.03	60mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 30MPa	sqm	1,166.17	1,160.78	1,149.14	1,148.36	
3.09.15.04	60mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 30MPa	sqm	1,288.87	1,283.48	1,271.84	1,271.07	
3.09.15.05	60mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 35MPa	sqm	1,215.25	1,209.86	1,198.22	1,197.44	
3.09.15.06	60mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 35MPa	sqm	1,337.95	1,332.56	1,320.92	1,320.15	
3.09.15.07	80mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 30MPa	sqm	1,485.19	1,479.81	1,468.16	1,467.39	
3.09.15.08	80mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 30MPa	sqm	1,632.44	1,627.05	1,615.41	1,614.63	
3.09.15.09	80mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 35MPa	sqm	1,534.27	1,528.89	1,517.24	1,516.47	
3.09.15.10	80mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 35MPa	sqm	1,681.52	1,676.13	1,664.49	1,663.71	
3.09.15.11	80mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 40MPa	sqm	1,730.60	1,725.21	1,713.57	1,712.79	
3.09.15.12	80mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 40MPa	sqm	1,730.60	1,725.21	1,713.57	1,712.79	
3.09.15.13	100mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 30MPa	sqm	1,828.76	1,823.37	1,811.73	1,810.96	
3.09.15.14	100mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 30MPa	sqm	1,926.92	1,921.54	1,909.89	1,909.12	
3.09.15.15	100mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 35MPa	sqm	1,877.84	1,872.46	1,860.81	1,860.04	
3.09.15.16	100mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 35MPa	sqm	1,976.00	1,970.62	1,958.97	1,958.20	
3.09.15.17	100mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 40MPa	sqm	1,926.92	1,921.54	1,909.89	1,909.12	
3.09.15.18	100mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 40MPa	sqm	2,025.09	2,019.70	2,008.05	2,007.28	
3.09.15.19	100mm Thick (Size: 222mmx110mm), Colour: Gray, Minimum Compressive Strength: 45MPa	sqm	2,074.17	2,068.78	2,057.14	2,056.36	
3.09.15.20	100mm Thick (Size: 222mmx110mm), Colour: Red/Black/any other Suitable Colour, Minimum Compressive Strength: 45MPa	sqm	2,172.33	2,166.94	2,155.30	2,154.52	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.09.16	KS-30MPa(RW): Supplying and Fixing factory made cement concrete Pre Cast kerb stone of specified size as per approved drawing and design for side of footpath/median/road island etc. using 20mm downgraded Stone Chips of LAA value ≤30%, sand (FM>=2.5) and minimum cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N content relates to mix ratio 1:1.25:2.4 satisfying specified minimum required average strength, fcr = 38.5 Mpa and satisfying a compressive strength fc = 30 Mpa at 28 days on standard cylinders, kerb stone should be made by specified machine with mechanically compressed with high load-bearing capacity, enriched weather resistance, the low water absorption capacity of standard thick and approved design/shape, size in required long-lasting colour, texture and pattern conforming BS-6717 or as specified approved by the E-I-C. including cutting trenches true to level & maintaining grade, alignment and height, removing earth, preparation kerb foundation, including carrying and placing kerb stone tightly, re-filling & ramming the sides properly, etc. all complete in all respect as per drawing, specification, direction and accepted by the Engineer-in-charge. Cost included all materials, their carriages, hire charges of machineries, equipment for construction and quality control as per specification, wages of labour and operational staff etc.	cum	14,641.25	14,660.93	13,911.38	14,101.14
3.09.16.2	KS-35MPa(RW): Supplying and Fixing factory made cement concrete Pre Cast kerb stone of specified size as per approved drawing and design for side of footpath/median/road island etc. using 20mm downgraded Stone Chips of LAA value ≤30%, sand (FM>=2.8) and minimum cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N content relates to minimum mix ratio 1:1.2:2.3 satisfying specified minimum required average strength, f'cr = 45 Mpa and satisfying a compressive strength f'c = 35 Mpa at 28 days on standard cylinders,kerb stone should be made by specified machine with mechanically compressed with high load-bearing capacity,enriched weather resistance, the low water absorption capacity of standard thick and approved design/shape,size in required long-lasting colour, texture and pattern conforming BS-6717 or as specified approved by the E-I-C. including cutting trenches true to level & maintaining grade, alignment and height, removing earth, preparation kerb foundation, including carrying and placing kerb stone tightly, re-filling & ramming the sides properly, etc. all complete in all respect as per drawing, specification, direction and accepted by the Engineer-in-charge. Cost included all materials, their carriages, hire charges of machineries, equipment for construction and quality control as per specification, wages of labour and operational staff etc.	cum	15,337.96	15,353.30	14,642.92	14,820.57
3.09.17.1	Spr&Com: Spreading filling sand @ 0.01cum/sqm or as required of minimum FM=0.8 uniformly over the laid paving blocks, including local handling, booming and compacting at least two passes of vibratory plate compactor or by appropriate mechanical means to obtain smooth top surface subsequently after 7 days later re-do the activity again [standard compactors may have a weight of about 90kg, plate area of about 0.3 sqm and apply a centrifugal force of about 15KN, such vibratory compaction should be continued till the top of each paving block is in level with its adjacent blocks. There should not be delay in compaction after laying of paving blocks to achieve uniformity of compaction and retention of the pattern of laying] etc. all complete in all respect as per drawing, specification, direction and accepted by the Engineer-in-charge.	sqm	8.08	8.04	7.87	7.87
Section-10:	Special Road Maintenance		<u> </u>		<u> </u>	
3.10.01.1	PPLM: Preparation of Pothole for small patch works (pothole, edge breaking, etc.) by cutting, scarifying and loosening of existing damaged Base/sub- base Course materials up to the depth of 150mm at the pothole areas in order to make regular shape of the pothole including leveling, dressing and compacting manually where mechanical compactors are not suitable to give a smooth surface including brushing, removing & stacking all debris at a safe distance etc. all complete in all respect as per direction of the Engineer-incharge.	sqm	23.93	23.44	21.78	21.78

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.01.2	HBPMM: Preparation of hard bed by scarifying and loosening of existing top (bituminous) surface, including base/sub-base course materials up to the depth of 75mm (minimum) using mechanical means, breaking dismantled material into specified sizes (less than 40mm), with supplying of extra fresh base course materials of required specification (if required) including spreading, leveling, dressing of loose material uniformly for maintaining camber & grade, watering if needed, rolling with 8 to 10 MT road roller to give compaction to 100% of MDD as obtained by standard proctor test etc. all complete in all respect as per direction of the Engineer-incharge. (Rate is excluding the cost of additional material supplied)	sqm	36.98	36.50	34.92	34.92	
3.10.02	SB: Providing and applying sand blinding with sand of minimum FM 0.80 @0.005 cum per sqm on prepared road surface, including supplying of all material, their carriage, labours, tools and equipment, etc. all complete in all respect as per direction of the Engineer-incharge.	sqm	5.64	5.63	5.33	5.33	
3.10.03	25mmSGSS: Providing 25mm thick (average) grouting with 20mm downgraded broken stone shingles (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, spraying tack coat @ 0.50kg per sqm over the cleaned road surface and laying, spreading stone shingles @0.028cum per sqm (loose) on the road surface, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.50kg per sqm uniformly, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006cum per sqm road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Retail]	sqm	520.00	517.17	515.91	518.35	
3.10.03.01	25mmSGSS: Providing 25mm thick (average) grouting with 20mm downgraded broken stone shingles (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, spraying tack coat @ 0.50kg per sqm over the cleaned road surface and laying, spreading stone shingles @0.028cum per sqm (loose) on the road surface, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.50kg per sqm uniformly, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006cum per sqm road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Bulk]]	sqm	512.64	507.35	508.55	510.99	
3.10.04.1	50mmSGBC: Providing 50mm thick (average) grouting with picked brick chips (LAA value not exceeding 40) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading picked brick chips 60mm thick (loose) in two layers, 1st layer of 35mm thick (loose) with 25mm to 16mm size and 2nd layer of 25mm thick (loose) mixing with 80% of 16mm to 12mm size and 20% of 12mm to 8mm size picked brick chips, spraying tack coat @ 0.50kg per sqm over the cleaned road surface, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.25kg per sqm uniformly on the 1st layer and @1.50kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge. [Retail]	sqm	802.60	797.00	792.66	792.66	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.04.1.01	50mmSGBC: Providing 50mm thick (average) grouting with picked brick chips (LAA value not exceeding 40) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading picked brick chips 60mm thick (loose) in two layers, 1st layer of 35mm thick (loose) with 25mm to 16mm size and 2nd layer of 25mm thick (loose) mixing with 80% of 16mm to 12mm size and 20% of 12mm to 8mm size picked brick chips, spraying tack coat @ 0.50kg per sqm over the cleaned road surface, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.25kg per sqm uniformly on the 1st layer and @1.50kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge. [Bulk]	sqm	790.63	781.04	780.70	780.70	
3.10.04.2	50mmSGSS: Providing 50mm thick (average) grouting with broken stone shingles (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading stone shingles 60mm thick (loose) in two layers, 1st layer of 35mm thick (loose) with 25mm to 16mm size and 2nd layer of 25mm thick (loose) mixing with 80% of 16mm to 12mm size and 20% of 12mm to 8mm size stone shingles, spraying tack coat @ 0.50kg per sqm over the cleaned road surface, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.25kg per sqm uniformly on the 1st layer and @1.50kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Retail]	sqm	895.80	891.73	887.71	892.93	
3.10.04.2.01	50mmSGSS: Providing 50mm thick (average) grouting with broken stone shingles (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading stone shingles 60mm thick (loose) in two layers, 1st layer of 35mm thick (loose) with 25mm to 16mm size and 2nd layer of 25mm thick (loose) mixing with 80% of 16mm to 12mm size and 20% of 12mm to 8mm size stone shingles, spraying tack coat @ 0.50kg per sqm over the cleaned road surface, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.25kg per sqm uniformly on the 1st layer and @1.50kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Bulk]	sqm	883.84	875.78	875.74	880.97	
3.10.04.3	50mmSGSC: Providing 50mm thick (average) grouting with broken stone chips (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading stone metal 60mm thick (loose) in two layers, 1st layer of 35mm thick (loose) with 25mm to 16mm size and 2nd layer of 25mm thick (loose) mixing with 80% of 16mm to 12mm size and 20% of 12mm to 8mm size stone chips, spraying tack coat @ 0.50kg per sqm over the cleaned road surface, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.25kg per sqm uniformly on the 1st layer and @1.50kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge. [Retail]	sqm	1,042.50	1,051.42	969.23	995.00	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.04.3.01	50mmSGSC: Providing 50mm thick (average) grouting with broken stone chips (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading stone metal 60mm thick (loose) in two layers, 1st layer of 35mm thick (loose) with 25mm to 16mm size and 2nd layer of 25mm thick (loose) mixing with 80% of 16mm to 12mm size and 20% of 12mm to 8mm size stone chips, spraying tack coat @ 0.50kg per sqm over the cleaned road surface, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.25kg per sqm uniformly on the 1st layer and @1.50kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge. [Bulk]	sqm	1,030.54	1,035.47	957.27	983.04	
3.10.05.1	75mmSGBC: Providing 75mm thick (average) grouting with picked brick chips (LAA value not exceeding 40) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading picked brick chips 100mm thick (loose) in two layers, 1st layer of 60mm thick (loose) with 40mm to 25mm size and 2nd layer of 40mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size picked brick chips, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @2.00kg per sqm uniformly on the 1st layer and @2.20kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Retail]	sqm	1,155.40	1,147.60	1,135.96	1,135.96	
3.10.05.1.01	75mmSGBC: Providing 75mm thick (average) grouting with picked brick chips (LAA value not exceeding 40) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading picked brick chips 100mm thick (loose) in two layers, 1st layer of 60mm thick (loose) with 40mm to 25mm size and 2nd layer of 40mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size picked brick chips, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @2.00kg per sqm uniformly on the 1st layer and @2.20kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Bulk]	sqm	1,139.94	1,126.99	1,120.50	1,120.50	
3.10.05.2	75mmSGSS: Providing 75mm thick (average) grouting with broken stone shingles (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading stone shingles 94mm thick (loose) in two layers, 1st layer of 56mm thick (loose) with 40mm to 25mm size and 2nd layer of 38mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size stone shingles, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.50kg per sqm uniformly on the 1st layer and @2.00kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge. [Retail]	sqm	1,182.43	1,177.78	1,166.00	1,174.19	

Item Code	Brief Description of Item		Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.05.2.01	75mmSGSS: Providing 75mm thick (average) grouting with broken stone shingles (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading stone shingles 94mm thick (loose) in two layers, 1st layer of 56mm thick (loose) with 40mm to 25mm size and 2nd layer of 38mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size stone shingles, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.50kg per sqm uniformly on the 1st layer and @2.00kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge. [Bulk]	sqm	1,169.55	1,160.60	1,153.12	1,161.31	
3.10.05.3	75mmSGSC: Providing 75mm thick (average) grouting with Stone metal (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading Stone chips 94mm thick (loose) in two layers, 1st layer of 56mm thick (loose) with 40mm to 25mm size and 2nd layer of 38mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size stone shingles, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.50kg per sqm uniformly on the 1st layer and @2.00kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Retail]	sqm	1,383.47	1,399.68	1,267.54	1,307.91	
3.10.05.3.01	75mmSGSC: Providing 75mm thick (average) grouting with Stone metal (LAA value not exceeding 35) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading Stone chips 94mm thick (loose) in two layers, 1st layer of 56mm thick (loose) with 40mm to 25mm size and 2nd layer of 38mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size stone shingles, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @1.50kg per sqm uniformly on the 1st layer and @2.00kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Bulk]	sqm	1,370.59	1,382.51	1,254.66	1,295.03	
3.10.06	100mmSGBC: Providing 100mm thick (average) grouting with picked brick chips (LAA value not exceeding 40) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading picked brick chips 130mm thick (loose) in two layers, 1st layer of 80mm thick (loose) with 40mm to 25mm size and 2nd layer of 50mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size picked brick chips, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @2.00kg per sqm uniformly on the 1st layer and @3.00kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Retail]	sqm	1,395.75	1,386.70	1,371.93	1,371.93	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.06.01	100mmSGBC: Providing 100mm thick (average) grouting with picked brick chips (LAA value not exceeding 40) and using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, laying and spreading picked brick chips 130mm thick (loose) in two layers, 1st layer of 80mm thick (loose) with 40mm to 25mm size and 2nd layer of 50mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size picked brick chips, maintaining proper camber, level, grade, super elevation and spraying hot bitumen @2.00kg per sqm uniformly on the 1st layer and @3.00kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller including cleaning the surface & heating bitumen from 140°C to 160°C temperature and spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.[Bulk]	sqm	1,377.35	1,362.16	1,353.52	1,353.52	
3.10.07.1	50mmSGSS(BE): Providing 50mm thick (average) grouting with broken stone shingles (LAA value not exceeding 35) and using bitumen emulsion of grade k-1-60 conforming to the requirements of ASTM/AASHTO, laying and spreading stone shingles 60mm thick (loose) in two layers, 1st layer of 35mm thick (loose) with 25mm to 16mm size and 2nd layer of 25mm thick (loose) mixing with 80% of 16mm to 12mm size and 20% of 12mm to 8mm size stone shingles, spraying tack coat @ 0.750kg per sqm over the cleaned road surface, maintaining proper camber, level, grade, super elevation and spraying bitumen emulsion @1.75kg per sqm uniformly on the 1st layer and @2.00kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller and cleaning the surface, spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.	sqm	1,164.17	1,163.70	1,159.62	1,164.73	
3.10.07.2	75mmSGSS(BE): Providing 75mm thick (average) grouting with broken stone shingles (LAA value not exceeding 35) and using bitumen emulsion of grade k-1-60 conforming to the requirements of ASTM/AASHTO, laying and spreading stone shingles 94mm thick (loose) in two layers, 1st layer of 56mm thick (loose) with 40mm to 25mm size and 2nd layer of 38mm thick (loose) mixing with 80% of 25mm to 20mm size and 20% of 20mm to 10mm size stone shingles, maintaining proper camber, level, grade, super elevation and spraying bitumen emulsion @2.25kg per sqm uniformly on the 1st layer and @3.00kg per sqm on 2nd layer, including rolling hard to full compaction with 8 to 10 MT road roller and cleaning the surface, spreading crushed stone chips/Sand (FM-1.80) @0.006 cum per sqm on road surface etc. all complete in all respect as per direction of the Engineer-in-charge.	sqm	1,495.98	1,496.22	1,487.38	1,495.46	
3.10.08.1	CS@0.75MD: Providing a single coat chip sealing over a low cracked road surface, using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, spraying bitumen by mechanical distributor on road surface @ 0.75kg/sqm, after spraying bitumen instantly spreading uniform graded crushed stone aggregates of 6.5mm average size defined as 100% passing through 10mm sieve and retain on 4.75mm sieve LAA value not exceeding 35 @ 0.006cum/sqm over the surface, sweeping the surface and hand packing for identical spreading of aggregate, surface rolling to embed the aggregate with Pneumatic Multiple Tired Roller (7 tires, 6-8 tons), including properly surface cleaning, heating bitumen upto 140°C to 180°C, etc. including cost of all materials, their carriages, hire charges of machineries, equipment for construction and quality control as per specification, fuels, lubricants and wages of operational staff etc. all complete in all respect as per direction of the Engineer-in-charge. [Retail]	sqm	143.18	142.11	142.85	144.33	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.08.1.01	CS@0.75MD: Providing a single coat chip sealing over a low cracked road surface, using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, spraying bitumen by mechanical distributor on road surface @ 0.75kg/sqm, after spraying bitumen instantly spreading uniform graded crushed stone aggregates of 6.5mm average size defined as 100% passing through 10mm sieve and retain on 4.75mm sieve LAA value not exceeding 35 @ 0.006cum/sqm over the surface, sweeping the surface and hand packing for identical spreading of aggregate, surface rolling to embed the aggregate with Pneumatic Multiple Tired Roller (7 tires, 6-8 tons), including properly surface cleaning, heating bitumen upto 140°C to 180°C, etc. including cost of all materials, their carriages, hire charges of machineries, equipment for construction and quality control as per specification, fuels, lubricants and wages of operational staff etc. all complete in all respect as per direction of the Engineer-in-charge. [Bulk]	sqm	140.42	138.43	140.09	141.56	
3.10.08.2	CS@1.00MD: Providing single coat chip sealing over a moderate cracked road surface, using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, spraying bitumen by mechanical distributor on road surface @ 1.00kg/sqm, after spraying bitumen instantly spreading uniform graded crushed stone aggregates of 6.5mm average size defined as 100% passing through 10mm sieve and retain on 4.75mm sieve with LAA value not exceeding 35 @ 0.007cum/sqm over the surface, sweeping the surface and hand packing for identical spreading of aggregate, surface rolling to embed the aggregate with Pneumatic Multiple Tired Roller (7 tires, 6-8 tons), including properly surface cleaning, heating bitumen upto 140°C to 180°C, etc. including cost of all materials, their carriages, hire charges of machineries, equipment for construction and quality control as per specification, fuels, lubricants and wages of operational staff etc. all complete in all respect as per direction of the Engineer-in-charge. [Retail]	sqm	179.56	178.19	179.60	181.32	
3.10.08.2.01	CS@1.00MD: Providing single coat chip sealing over a moderate cracked road surface, using 60/70 penetration grade straight run bitumen conforming to the requirements of ASTM/ AASHTO, spraying bitumen by mechanical distributor on road surface @ 1.00kg/sqm, after spraying bitumen instantly spreading uniform graded crushed stone aggregates of 6.5mm average size defined as 100% passing through 10mm sieve and retain on 4.75mm sieve with LAA value not exceeding 35 @ 0.007cum/sqm over the surface, sweeping the surface and hand packing for identical spreading of aggregate, surface rolling to embed the aggregate with Pneumatic Multiple Tired Roller (7 tires, 6-8 tons), including properly surface cleaning, heating bitumen upto 140°C to 180°C, etc. including cost of all materials, their carriages, hire charges of machineries, equipment for construction and quality control as per specification, fuels, lubricants and wages of operational staff etc. all complete in all respect as per direction of the Engineer-in-charge. [Bulk]	sqm	175.88	173.28	175.92	177.64	
3.10.08.3	CS@1.20MD(BE): Providing a single coat chip sealing over a moderate cracked road surface, using bitumen emulsion of grade k-1-60 conforming to the requirements of ASTM/ AASHTO, spraying bitumen emulsion by mechanical distributor on cleaned road surface @ 1.20kg/sqm, after spraying bitumen emulsion instantly spreading uniform graded crushed stone aggregates of 6.5mm average size defined as 100% passing through 10mm sieve and retain on 4.75mm sieve with LAA value not exceeding 35 @ 0.007cum/sqm over the surface, sweeping the surface and hand packing for identical spreading of aggregate, surface rolling to embed the aggregate with Pneumatic Multiple Tired Roller (7 tires, 6-8 tons), including cost of all materials, their carriages, hire charges of machineries, equipment for construction and quality control as per specification, fuels, lubricants and wages of operational staff etc. all complete in all respect as per direction of the Engineer-in-charge.	sqm	238.01	237.86	238.54	240.26	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.09	12mmSC: Providing 12mm thick (minimum) compacted pre-mixed bituminous surfacing - wearing course to be prepared using 10mm down, 6mm downgraded crushed stone chips & Stone Dust to comply the gradation as specified in the relevant item of Road Design Standards, mixed with 60/70 penetration grade minimum @5.0% by weight of total mix or as determined by job mix design. The bitumen and chips shall be separately heated to a temperature 140°C – 155°C and 150°C – 170°C respectively. The mixing shall be done at temperature between 140°C – 160°C at a separate place away from the fire. The mixture of bitumen and chips shall be laid uniformly on the road surface in appropriate layer so as to produce the specified compacted thickness, rolling at a temperature not bellow 90°C with appropriate Steel Drum Roller (3-5 tons) & pneumatic multiple tire roller (8-10 tons) to the desired compaction, including supplying of all materials, their carriage, labours, tools and equipment etc. all complete in all respect as per direction of the Engineer-in-charge. [Excluding the cost of applying Prime/Tack coat].						
3.10.09.01	Bitumen Grade 60/70 [Retail]	sqm	299.69	297.68	296.72	298.19	
3.10.09.02	Bitumen Grade 60/70 [Bulk]	sqm	294.50	290.76	291.53	293.00	
3.10.10.1	CP-BB: Supplying, cutting and fitting of 6mm thick Chequer Plate for bailey bridge decking with minimum 6mm thick mild steel chequer plate of unit weight 49.20kg/sqm, including cutting and shaping of required sizes of bridge deck with cleaning, removing rust, etc. including local handling, carriage of the plate to the site with loading & unloading and placing, etc. all complete in all respect as per direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	kg	155.17	155.10	154.86	154.86	
3.10.10.2	Welding at the splicing point of mild steel chequer plate with joist of deck at 3 points (each point being 25mm in length) using electrodes, including cleaning, local handling, cost of all materials, labours, tools, equipment, cost of power, etc. all complete as per drawings, specifications and directions of the Engineer.	each	61.47	61.41	60.93	60.93	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.11.01	CCRM-30SCCM: Providing and laying 18BWG G.I. wire meshed cement concrete layer over an old RCC/CC pavement with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, for = 38.5 Mpa and satisfying a specified compressive strength, for = 30 Mpa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-I 52.5N/ASTM C150 Type-1, using coarse sand of minimum FM 2.50 and graded stone aggregate of 20 mm nominal size (LAA value not exceeding 30) in appropriate proportions as per approved & specified design criteria conforming to ASTM C-33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position and maintaining true to the alignment, making shutter water-tight properly, mixing in standard concrete mixture machine, maintaining allowable slump of 50mm to 75mm, including spraying cement grouting/slurry over the cleaned existing road surface, casting in forms, placing 50mm rhombus 18 BWG G.I. wire mesh in position, compacting by mechanical vibrator machine and finished in a continuous operation including making provision for contraction, expansion, construction & longitudinal joints (5-10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of 18 BWG G.I. wire mesh is not included in this unit rate. Note: minimum Cement content considered in M-30 is @ 445kg/cum. Additional quantity of cement to be added if required to attain the required strength at the contractors own cost. The Mix Design has to be approved by the Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority befor	cum	16,705.09	16,759.74	15,720.16	15,975.13	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.10.11.02	CCRM-30SCCM: Providing and laying 18BWG G.I. wire meshed cement concrete layer over an old RCC/CC pavement with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 38.5 Mpa and satisfying a specified compressive strength, fcr = 30 Mpa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-I 52.5N/ASTM C150 Type-1, using coarse sand of minimum FM 2.50 and graded stone aggregate of 20 mm nominal size (LAA value not exceeding 30) in appropriate proportions as per approved & specified design criteria conforming to ASTM C-33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position and maintaining true to the alignment, making shutter water-tight properly, mixing in standard concrete mixture machine, maintaining allowable slump of 50mm to 75mm, including spraying cement grouting/slurry over the cleaned existing road surface, casting in forms, placing 50mm rhombus 18 BWG G.I. wire mesh in position, compacting by mechanical vibrator machine and finished in a continuous operation including making provision for contraction, expansion, construction & longitudinal joints (5-10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, curing for 28 days, finishing to lines and grades, removing centering-shuttering after specified time approved, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of 18 BWG G.I. wire mesh is not included in this unit rate. Note: minimum Cement content considered in M-30 is @ 445kg/cum. Additional quantity of cement to be added if required to attain the required strength at the contractors own cost. The Mix Design has to be approved by the Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority befor	cum	15,781.71	15,834.77	14,825.47	15,073.01	
3.10.12.01	18 BWG (WM): Supplying and laying 50mm rhombus 18 BWG G.I. wire mesh of required size in cement concreting work, placing mesh in the middle of concreting work or as mentioned in the drawing, including cutting and carrying of wire mesh to the site, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. (Rate is inclusive of cost of materials, labour and all incidental charges in this connection).	sqm	267.19	267.12	266.88	266.88	
	Protective Works	1					
3.11.01	PCCBC-10: Plain cement concrete work in foundation with minimum compressive strength of 10 Mpa at 28 days (sugessted mix proportion 1:3:6) on standard cylinder as per standard practice of Code AASTHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II /A-M, 42.5 N, best quality sand (FM. 1.2) and 20mm down well graded picked brick chips (LAA value and maximum water absorption not exceeding 38 & 15% respectively) conforming ASTM C-33, including breaking chips and screening, placing shutter in position and maintaining true to the alignment, making shutter watertight properly, mixing in standard mixture machine, casting in forms, compacting by vibrator machine and curing for 28 days, removing shuttering after specified time approved, etc. all complete approved and accepted by the E-I-C. (Additional quantity of cement to be added if required to attain the strength at the contractors own cost). [Retail]	cum	9,435.60	9,405.76	9,095.50	9,095.50	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.11.01.01	PCCBC-10: Plain cement concrete work in foundation with minimum compressive strength of 10 Mpa at 28 days (sugessted mix proportion 1:3:6) on standard cylinder as per standard practice of Code AASTHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II /A-M, 42.5 N, best quality sand (FM. 1.2) and 20mm down well graded picked brick chips (LAA value and maximum water absorption not exceeding 38 & 15% respectively) conforming ASTM C-33, including breaking chips and screening, placing shutter in position and maintaining true to the alignment, making shutter watertight properly, mixing in standard mixture machine, casting in forms, compacting by vibrator machine and curing for 28 days, removing shuttering after specified time approved, etc. all complete approved and accepted by the E-I-C. (Additional quantity of cement to be added if required to attain the strength at the contractors own cost). [Bulk]	cum	9,258.78	9,229.08	8,920.36	8,920.36
3.11.02.1	125mmBW(1:4): 125 mm brick works with first class bricks with cement sand (F.M. 1.2) mortar (1:4) and making bond with connected walls including necessary scaffolding, raking out joints, cleaning and soaking the bricks for at least 24 hours before use and washing of sand, curing at least for 7 days including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) .[Retail]	sqm	1,386.91	1,382.36	1,327.75	1,327.75
3.11.02.1.01	125mmBW(1:4): 125 mm brick works with first class bricks with cement sand (F.M. 1.2) mortar (1:4) and making bond with connected walls including necessary scaffolding, raking out joints, cleaning and soaking the bricks for at least 24 hours before use and washing of sand, curing at least for 7 days including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) .[PWD 04.16] [Bulk]	sqm	1,414.64	1,410.09	1,355.48	1,355.48
3.11.02.2	BW(1:4): Brick works with first class bricks with cement sand (F.M. 1.2) mortar (1:4) in exterior walls including filling the interstices with mortar, raking out joints, cleaning and socking the bricks at least for 24 hours before use and washing of sand, necessary scaffolding, curing at least for 7 days etc. all complete including cost of water, electricity and other charges (measurement to given as 250 mm width for one brick length and 375 mm for one brick and a half brick length) accepted by the Engineer-in-charge. (Cement: CEM-II/B-M). [Retail]	cum	10,050.85	10,016.47	9,621.41	9,621.41
3.11.02.2.01	BW(1:4): Brick works with first class bricks with cement sand (F.M. 1.2) mortar (1:4) in exterior walls including filling the interstices with mortar, raking out joints, cleaning and socking the bricks at least for 24 hours before use and washing of sand, necessary scaffolding, curing at least for 7 days etc. all complete including cost of water, electricity and other charges (measurement to given as 250 mm width for one brick length and 375 mm for one brick and a half brick length) accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) [PWD 04.3] [Bulk]	cum	10,105.01	10,070.63	9,675.57	9,675.57
3.11.03	FP(1:4): Exposed 125 mm thick pointing ornamental brick work with sorted out first class bricks with cement sand (F.M. 1.2) mortar (1:4) and making bond with connected walls including necessary scaffolding, raking out joints, cleaning and soaking the bricks for at least 24 hours before use and washing of sand, curing at least for 7 days including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M). [Retail]	sqm	1,664.16	1,658.49	1,591.36	1,591.36
3.11.03.01	FP(1:4): Exposed 125 mm thick pointing ornamental brick work with sorted out first class bricks with cement sand (F.M. 1.2) mortar (1:4) and making bond with connected walls including necessary scaffolding, raking out joints, cleaning and soaking the bricks for at least 24 hours before use and washing of sand, curing at least for 7 days including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) [PWD 04.17] [Bulk]	sqm	1,714.83	1,709.16	1,642.03	1,642.03

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.11.04	RCC-20BCCM(PW): Reinforced cement concrete in Protective Works using steel shutter, with picked brick chips and minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, fcr = 28.5 Mpa and satisfying a compressive strength fc = 20 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to Portland Composite Cement (CEM-II/A-L/M/V/W 42.5N), with best quality sand [50% quantity of medium sand (FM. 1.2) and 50% quantity of coarse sand of equivalent FM = 2.2] and 25mm down well graded picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming ASTM C-33, including breaking chips and screening, making, placing shutter in position and maintaining true to the alignment, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper fed by standard measuring boxes, casting in forms, compacting by vibrator machine and curing for 28 days, removing centering-shuttering after specified time approved, including cost of water, electricity, additional testing charges of materials and cylinders required by Engineer, other charges etc. all complete approved and accepted by the E-I-C. Additional quantity of cement to be added if required to attain the strength at the contractors own cost. (Rate is excluding the cost of reinforcement and its fabrication, placing and binding etc.)						
3.11.04.1	Piling Work [Retail]	cum	13,479.50	13,449.66	13,096.76	13,096.76	
3.11.04.2	Vertical Wall, Grade Beams, etc. [Retail]	cum	14,820.35	14,784.84	14,388.99	14,388.99	
3.11.04.3	Piling Work [Bulk]	cum	11,485.10	11,459.15	11,152.28	11,152.28	
3.11.04.4	Vertical Wall, Grade Beams, etc. [Bulk]	cum	11,620.07	11,591.67	11,274.99	11,274.99	
3.11.05	Supplying and fabrication of Ribbed or deformed bar reinforcement for all types of RCC work including straightening, removing ruts, cleaning, cutting, hooking, bending, lapping and/or welding wherever required as directed, placing in position, tieing with 22 BWG black annealed binding wire (PVC coated in case of FBEC rebar) double fold, cost of binding wire and anchoring to the adjoining members wherever necessary, supplying and placing with proper cover blocks (1:1), supports, chairs, spacers, splices or laps etc. including cost of all materials, cost of labour, cost of equipment & machinery, loading and unloading, transportation, all other incidental charges and work at all leads and lifts etc. to complete the work as per design, drawing, specifications and direction of the E-I-C. Measurement relating to nominal mass, dimensions and tolerances of various types of steel shall conform to relevant BDS/ ASTM codes. Reinforcement shall be measured only in lengths of bar as actually placed in position on standard weight i.e. 7850 kg/m3 (BNBC Table 6.2.1) basis. No separate payment shall be allowed for chairs of any shape & profile, spacer bar of any shape & profile, lap/splice & welding unless otherwise shown in the drawing, wastages, binding wire etc. as the cost of these is included in the unit rate. [Note: Tests for reinforcing bars shall be conducted at LGED/BUET/CUET/ KUET/ RUET.]						
3.11.05.1	Grade B300D-R/B300C-R: Ribbed or Deformed bar produced and marked as per BDS ISO 6935-2:2016 with minimum yield strength, fy (ReH) = 300 Mpa, but the tested yield strength shall not exceed fy by more than the 125 Mpa and the ratio of tested ultimate strength, fu (Re) to tested yield strength (fy) shall be at least 1.25 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 17% and 8% respectively. [Retail]	kg	114.83	114.68	114.03	114.03	
3.11.05.2	Grade B400C-R/ B400CWR/B400DWR: Ribbed or Deformed bar produced and marked as per BDS ISO 6935-2:2016 with minimum yield strength, fy (ReH) = 400 Mpa, but the tested yield strength shall not exceed fy by more than the 125 Mpa and the ratio of tested ultimate strength, fu (Re) to tested yield strength (fy) shall be at least 1.25 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 17% and 8% respectively. [Retail]	kg	124.84	124.69	124.05	124.05	

Item Code	Brief Description of Item	Unit		Ra		
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.11.05.3	Grade 420DWR: Ribbed or Deformed bar produced and marked as per ISO 6935-2:2016/ ASTM A706M - 16 with minimum yield strength, fy(ReH) = 420 Mpa but fy(ReH) not exceeding 540 Mpa, the ratio of ultimate tensile strength, fu(Rm) to actual yield strength, fy(ReH) shall be at least 1.25 and minimum elongation in 200mm shall be at least 14% for bar sizes 10mm through 20mm, at least 12% for bar sizes 22mm through 32mm and at least 10% for bar sizes 40mm and 50mm. [Retail]	kg	124.84	124.69	124.05	124.05
3.11.05.4	Grade B300D-R/B300C-R: Ribbed or Deformed bar produced and marked as per BDS ISO 6935-2:2016 with minimum yield strength, fy (ReH) = 300 Mpa, but the tested yield strength shall not exceed fy by more than the 125 Mpa and the ratio of tested ultimate strength, fu (Re) to tested yield strength (fy) shall be at least 1.25 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 17% and 8% respectively. [Bulk]	kg	111.08	110.92	110.28	110.28
3.11.05.5	Grade B400C-R/ B400CWR/B400DWR: Ribbed or Deformed bar produced and marked as per BDS ISO 6935-2:2016 with minimum yield strength, fy (ReH) = 400 Mpa, but the tested yield strength shall not exceed fy by more than the 125 Mpa and the ratio of tested ultimate strength, fu (Re) to tested yield strength (fy) shall be at least 1.25 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 17% and 8% respectively. [Bulk]	kg	122.34	122.19	121.54	121.54
3.11.05.6	Grade 420DWR: Ribbed or Deformed bar produced and marked as per ISO 6935-2:2016/ ASTM A706M - 16 with minimum yield strength, fy(ReH) = 420 Mpa but fy(ReH) not exceeding 540 Mpa, the ratio of ultimate tensile strength, fu(Rm) to actual yield strength, fy(ReH) shall be at least 1.25 and minimum elongation in 200mm shall be at least 14% for bar sizes 10mm through 20mm, at least 12% for bar sizes 22mm through 32mm and at least 10% for bar sizes 40mm and 50mm. [Bulk]	kg	122.34	122.19	121.54	121.54
3.11.06	Labour for breaking head of hardened cast in situ bored pile/pre-cast pile up to a required length by any means but without damaging the rest and removing the dismantled materials such as concrete to a safe distance including scraps and cleaning concrete from steel/M.S. rods, straightening and bending of pile bars, preparation and making platform where necessary, carrying, all sorts of handling, stacking the same properly after clearing, leveling and dressing the situ and clearing the bed etc. complete in all respect and accepted by the Engineer-in-charge. (Measurement will be given for the actual pile head volume to be broken). [PWD 09.7]	cum	3,595.00	3,518.00	3,274.00	3,274.00
3.11.07	Labour charge for driving pre-cast RCC piles with drop hammer type rig in any type of soil, handling and keeping in position and driving with suitable monkey/drop hammer for small pile otherwise suitable mechanical means to the required depth including fitting and fixing steel cap, etc. cost included hire charges of machineries, tools & equipments, wages of operational staff etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.					
3.11.07.1	Cost of pile driving (Size-150mmx150mm) depth up to 6 m	m	301.85	296.45	276.08	276.08
3.11.07.2	Cost of pile driving (Size-150mm to 200mmx200mm) depth up to 6 m	m	436.82	432.35	416.69	416.69
3.11.07.3	Cost of pile driving (Size-150mm to 200mmx200mm) depth 6m to 12m and above	m	615.72	609.15	585.89	585.89
3.11.07.4	Cost of pile driving (Size-200mm to 250mmx250mm) depth upto 6m	m	508.13	503.01	485.12	485.12
3.11.07.5	Cost of pile driving (Size-200mm to 250mmx250mm) depth 6m to 12m and above	m	939.95	930.11	895.21	895.21
3.11.07.6	Cost of pile driving (Size-250mm to 300mmx300mm) depth upto 6m	m	625.08	618.52	595.25	595.25
3.11.07.7	Cost of pile driving (Size-250mm to 300mmx300mm) depth 6m to 12m and above	m	1,315.22	1,300.91	1,249.65	1,249.65
3.11.07.8	Cost of pile driving (Size-300mm to 350mmx350mm) depth upto 6m	m	939.95	930.11	895.21	895.21
3.11.07.9	Cost of pile driving (Size-300mm to 350mmx350mm) depth 6m to 12m and above	m	1,876.77	1,857.09	1,787.30	1,787.30

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.11.10	WMCCBSS-20(PW): Providing and laying cast in place 12 BWG G.I. wire meshed Cement Concrete Blocks (1000mm X 1000mm X 100mm) at bridge approaches/road slopes with cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, sand of minimum FM 1.5 and 25 mm down well graded shingles (LAA value not exceeding 35) to attain a minimum 28 days cylinder strength of 20MPa (suggested mix proporation 1:2:4), including grading, washings shingles, shuttering, mixing in satndard concrete mixture machine, casting with supplying and laying 75mm rhombus 12 BWG G.I. wire mesh for required size and length in CC Block, placing mesh in the middle of CC block as it should be, compacting concrete properly, curing for 28 days, including preparation of slopes by cutting or filling with ramming the filled up earth to the same profile as that of the finished slope level, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. (Unit cost including all materials, shuttering, casting, curing for 28 days, and all other incidental charges, etc.) [Retail]	sqm	1,376.97	1,372.34	1,344.40	1,351.24	
3.11.11	WMCCBSS-20(PW): Providing and laying cast in place 12 BWG G.I. wire meshed Cement Concrete Blocks (1000mm X 1000mm X 100mm) at bridge approaches/road slopes with cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N, sand of minimum FM 1.5 and 25 mm down well graded shingles (LAA value not exceeding 35) to attain a minimum 28 days cylinder strength of 20MPa (suggested mix proporation 1:2:4), including grading, washings shingles, shuttering, mixing in satndard concrete mixture machine, casting with supplying and laying 75mm rhombus 12 BWG G.I. wire mesh for required size and length in CC Block, placing mesh in the middle of CC block as it should be, compacting concrete properly, curing for 28 days, including preparation of slopes by cutting or filling with ramming the filled up earth to the same profile as that of the finished slope level, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. (Unit cost including all materials, shuttering, casting, curing for 28 days, and all other incidental charges, etc.) [Bulk]	sqm	1,324.86	1,320.34	1,293.08	1,299.76	
3.11.13	Geo-Textile: Supplying and laying of a geo-textile filter between CC blocks and embankment slopes properly with non-woven needle punched type geo-textile filter of different grades, specification for effective erosion protection in hydraulic structures/river training works including local handling placing in position, providing machine seamed joints (with 100% polypropylene or nylon thread) or 35cm lap in dry condition or minimum 100cm lap under water including protecting the geo-textile material; from UV ray and from any other damages etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. (Geo-textile delivered at site should be clearly labeled with brand name and grade printed at regular intervals across the body of the fabric). Supply of 2 mm thick best quality geo-textile from approved manufacturer/origin and laying as per manufacturer's instructions approved and accepted by the Engineer-in-charge. Before commencement of laying of geo-textile, the contractor must submit the method statement for carrying out this work including sample with evidence of origin and compliance certificate from independent testing laboratory for approval. [PWD 02.8]	sqm	214.00	212.00	209.00	209.00	
3.11.15.1	RCC(P+SP)-PW: Palisading work with Single pre-cast RCC (1:1.5:3) plate (1050mm X 600mm X 75mm) fitted with RCC (1:1.5:3) post of 150mm x 150mm, 2m long, 0.9m center to center to be driven 2/3rd of the total length (2m) of the post made of 20mm down graded brick chips. Pre-cast plate to be fitted with RCC post fixed necessary nuts and bolts at driving of post supplying all necessary nuts and bolts etc. all complete in all respect as per approved drawing enumerated in Appendix-6, specification and direction of the Engineer-in-charge. Measurement will be made on center to center distance of the post.[Retail]	m	3,796.90	3,776.83	3,680.85	3,680.85	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.11.15.1.01	RCC(P+SP)-PW: Palisading work with Single pre-cast RCC (1:1.5:3) plate (1050mm X 600mm X 75mm) fitted with RCC (1:1.5:3) post of 150mm x 150mm, 2m long, 0.9m center to center to be driven 2/3rd of the total length (2m) of the post made of 20mm down graded brick chips. Pre-cast plate to be fitted with RCC post fixed necessary nuts and bolts at driving of post supplying all necessary nuts and bolts etc. all complete in all respect as per approved drawing enumerated in Appendix-6, specification and direction of the Engineer-in-charge. Measurement will be made on center to center distance of the post.[Bulk]	m	3,540.44	3,520.77	3,429.49	3,429.49
3.11.15.2	RCC(P+DP)-PW: Palisading work with Double pre-cast RCC (1:1.5:3) plate (1050mm X 600mm X 75mm) fitted with RCC (1:1.5:3) post of 150mm x 150mm, 3m long, 0.9m center to center to be driven 2/3rd of the total length (3m) of the post made of 20mm down graded brick chips. Pre-cast plate to be fitted with RCC post fixed necessary nuts and bolts at driving of post supplying all necessary nuts and bolts etcall complete in all respect as per approved drawing (Road Design Standards, Plate UPR-UNR-EM1-2-1)/enumerated in Appendix-6, specification and direction of the Engineer-in- charge. Measurement will be made on center to center distance of the post. [Retail]	m	6,138.29	6,111.19	5,968.72	5,968.72
3.11.15.2.01	RCC(P+DP)-PW: Palisading work with Double pre-cast RCC (1:1.5:3) plate (1050mm X 600mm X 75mm) fitted with RCC (1:1.5:3) post of 150mm x 150mm, 3m long, 0.9m center to center to be driven 2/3rd of the total length (3m) of the post made of 20mm down graded brick chips. Pre-cast plate to be fitted with RCC post fixed necessary nuts and bolts at driving of post supplying all necessary nuts and bolts etcall complete in all respect as per approved drawing (Road Design Standards, Plate UPR-UNR-EM1-2-1)/enumerated in Appendix-6, specification and direction of the Engineer-in- charge. Measurement will be made on center to center distance of the post. [Bulk]	m	5,688.05	5,661.66	5,527.56	5,527.56
3.11.16.1	ReSP-PW: Labour charge for Re-setting of existing distorted/collapsed RCC single plate palisading work including pulling out of distorted/collapsed existing RCC post (150mmX150mm, 3m long, 0.9m c/c) and re-driven the post 2/3rd (minimum) of its total length by suitable monkey/drop hammer. Existing RCC plate to be fitted with necessary nuts & bolts at appropriate location of driven RCC post, including supplying required nuts and bolts etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.	m	912.66	896.71	834.44	834.44
3.11.16.2	ReDP-PW: Labour charge for Re-setting of existing distorted/collapsed RCC Double plate palisading work including pulling out of distorted/collapsed existing RCC post (150mmX150mm, 3m long, 0.9m c/c) and re-driven the post 2/3rd (minimum) of its total length by suitable monkey/drop hammer. Existing RCC plate to be fitted with necessary nuts & bolts at appropriate location of driven RCC post including supplying required nuts and bolts etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge.	m	1,517.71	1,487.65	1,388.87	1,388.87
3.11.17	BP(Ø75mm): Supplying of straight and strong borrak bamboo posts of having minimum 75 mm diameter althrough and driving the same vertically in the ground up to required depth by any means shaping the top of the post, all complete and accepted by the Engineer-incharge. [PWD 02.3]	m	90.00	90.00	81.00	81.00
3.11.19.1	BDS-PW: Palisading work by supplying of bitumen drum sheet walling tied with 20 BWG G.l. wire fixing the same with already driven borrak bamboo posts with half split borrak bamboo runners @ 450mm c/c horizontally with iron nails, G.l wire etc. all complete and accepted by the Engineer-in-charge. (Rate is excluding the cost of bamboo post). [PWD 02.5]	sqm	613.00	608.00	583.00	583.00

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.11.20	GBW(1:8)-PW: Providing single layer gunny bag barrier/wall for toe protection with cement (conforming to BDS EN 197-1 : 2003 CEM-II/A-M 42.5N) and sand (FM-1.00) mortar 1:8 filled gunny bags [minimum size L: 650mmX W:400mmX H:175mm], including washing of sand, mixing in standard mixture machine, filled & tamping the bags in place, stitching bags by hand sewing machine, curing by sprinkling water over the bags, including preparation of trenches (bed) by cutting or filling with ramming the filled up earth to the same profile as that of the finished toe level, placing the filled gunny bags along the toe line by avoiding vertical joints, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	sqm	2,137.82	2,124.28	2,055.95	2,055.95	
3.11.21	GB(1:8)-SPW: Providing single layer gunny bag on slope of embankment for slope protection with cement (conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N) and sand (FM-1.00) mortar 1:8 filled gunny bags [minimum size L: 650mmX W:400mmX H:175mm], including washing of sand, mixing in standard mixture machine, filled & tamping the bags in place, stitching bags by hand sewing machine, curing by sprinkling water over the bags, including preparation of slope (bed) by cutting or filling with ramming the filled up earth to the same profile as that of the finished slope level, placing the filled gunny bags along the slope by minimum 40% overlapping to the successive previous layer and avoiding vertical joints, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	sqm	1,281.61	1,273.08	1,230.91	1,230.91	
3.11.22	DSFGB: Supplying & dumping of soil filled geo-textile bags of different size and capacity (fill volume and weight when filled with dry sand/earth) at the specified locations along the bottom of piles of piers/ toe line properly, including loading, unloading, carrying geobags from stack-yard to dumping place by head load and power driven flat top country boat etc. including supplying of geo-textile bags (empty) of different sizes and capacity at project/work site conforming to the following Technical Specifications, filling of empty geo-textile bags of different sizes with suitable soil, stitching the bags by hand sewing machine in accordance with the detailed drawing and technical specifications with plastic thread, protecting the geotextile bags from UV ray or any other damages and dumping the same in position etc. including higher charge and mobilization of all equipment, materials, labours, taxes, incidental charges etc. complete in all respect as per approved drawing, specification and direction of E-I-C.						
3.11.22.01	Geo-Textile Bag: Empty Size: 800mm x 650mm, Fill Volumn: 0.0520 cum & Weight: 80 Kg, [Geo-Textile Grade: Grade-III-DF-40-2.3mm thick]	bag	245.68	244.84	241.92	241.92	
3.11.22.02	Geo-Textile Bag: Empty Bag Size: 900mm x 700mm, Fill Volumn: 0.0730 cum & Weight: 110 Kg, [Geo-Textile Grade: Grade-III-DF-40-2.3mm thick]	bag	294.30	293.40	289.84	289.84	
3.11.22.03	Geo-Textile Bag: Empty Bag Size: 950mm x 750mm, Fill Volumn: 0.0840 cum & Weight: 125 Kg, [Geo-Textile Grade: Grade-III-DF-40-2.3mm thick]	bag	330.86	329.83	325.74	325.74	
3.11.22.04	Geo-Textile Bag: Empty Bag Size: 1075mm x 850mm, Fill Volumn: 0.1164 cum & Weight: 175 Kg, [Geo-Textile Grade: Grade-V-DF-60-3.0mm thick]	bag	411.67	410.51	405.86	405.86	
3.11.22.05	Geo-Textile Bag: Empty Bag Size: 1100mm x 850mm, Fill Volumn: 0.1333 cum & Weight: 200 Kg, [Geo-Textile Grade: Grade-V-DF-60-3.0mm thick]	bag	426.85	425.56	420.39	420.39	
3.11.22.06	Geo-Textile Bag: Empty Bag Size: 1300mm x 1050mm, Fill Volumn: 0.1664 cum & Weight: 250 Kg, [Geo-Textile Grade: Grade-V-DF-60-3.0mm thick]	bag	584.71	583.29	577.61	577.61	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.11.23	DSFPB: Supplying and Dumping of soil filled Plastic bags at the specified locations bridge approaches/damaged slope areas properly (Each bag shall be 50kg Capacity minimum), including supplying of plastic bags, filling with suitable soil and stitching bags by hand sewing machine properly with plastic thread and dumping the same in position etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. (Unit cost including Plastic Bags, Stitching of bags, Filled with suitable soil, Dumping at specified locations and all other incidental charges, etc.)	bag	71.00	69.90	65.94	65.94	
3.11.24	JGT_RBP: Supplying and laying of natural additive treated woven type double warp plain weave jute geo-textile (JGT) conforming to BDS 1909: 2016 for river bank and slope protection work including local handling, unrolling, placing in position, ensuring proper drapability (JGT should touch the ground surface at all points), stapling JGT by 6mm dia. U-shapped pegs/ hooknails or 37mm long mushroom shaped nails at an interval of 300mm with overlaps of 100mm, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-B (JGT Installation Guideline for River Bank Protection) of BDS 1909: 2016 and approval of Engineer-In-Charge.						
3.11.24.01	JGT_RBP-1: Applicable for mild to moderate River River Bank Protection work. This type of treated JGT shall have the following requirements. Ends x Picks /dm ≥ 85 x 32, Width(m) ≥ 1, Mass per unit area (gsm) = 627 ± 15%, Thickness under 2 kPa pressure (mm) = 2.0 ± 20%, AOS (O95) (µm) ≤ 150, Vertical Permeability (m/sec) ≥ 1.0 x10-3, Horizontal Permeability (m/sec) ≥ 6.0 x10-3, Grab Tensile Strength (N) MD x CD ≥ 950 x 230, Grab Tensile Elongation (%) MD x CD ≤ 35 x 45, CBR Puncture Resistance (N) ≥ 2500, Wide Width Tensile Strength (KN/m) MD x CD ≥ 20 x 10, Wide Width Elongation (%) MD x CD ≤ 12 x 10.	sqm	245.83	245.29	243.80	243.80	
3.11.25	JGT-HSM: Supplying and laying of open mesh Plain Weave jute geotextile (JGT) commonly known as Soil Saver of different grades conforming to BDS 1909: 2016 for Hill Slope Management work including local handling, unrolling, placing in position, unrolling of JGT in the direction of surface run-off, stapling JGT by 6mm dia. Ushapped hooknails at an interval of 300mm with overlaps of 100mm at the sides and 150mm at the ends, anchoring JGT within a trench at the two ends by filling the trench with big bats/gravel or other suitable materials, ensuring proper drapability (JGT must touch the ground surface at all points), filling drain materials immediately after laying of JGT, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-C (JGT Installation Guideline for Hill Slope Management) of BDS 1909:						
3.11.25.01	JGT_HSM-1: Applicable for Moderate slope (≤35 degree) & annual rainfall ≤ 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 6.5 x 4.5, Width(m) = 1.22, Mass per unit area (gsm) = $500 \pm 10\%$, Thickness under 2 kPa pressure (mm) = $4.5 \pm 10\%$, Water Holding Capacity (% by weight) ≥ 400 , Wide Width Tensile Strength (kN/m) MD x CD ≥ 6.5×6.0 , Wide Width Elongation (%) MD x CD ≤ 14.0×14.0 .	sqm	69.45	68.91	67.42	67.42	
3.11.25.02	JGT_HSM-2: Applicable for Moderate slope (\leq 35 degree) & annual rainfall ≥ 2000mm and steep stope (\geq 35 degree to \leq 45 degree) & annual rainfall \leq 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm \geq 8 x 7, Width(m) = 1.22, Mass per unit area (gsm) = 600±10%, Thickness under 2 kPa pressure (mm) = $5.5\pm10\%$, Water Holding Capacity (% by weight) \geq 400, Wide Width Tensile Strength (kN/m) MD x CD \geq 12.0 x 6.0, Wide Width Elongation (%) MD x CD \leq 14.0 x 14.0.	sqm	74.26	73.72	72.23	72.23	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.11.25.03	JGT_HSM-3: Applicable for steep stope (>35 degree to ≤ 45 degree) & annual rainfall > 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 8 x 8, Width(m) = 1.22, Mass per unit area (gsm) = 700 \pm 10%, Thickness under 2 kPa pressure (mm) = 5.5 \pm 10%, Water Holding Capacity (% by weight) ≥ 400, Wide Width Tensile Strength (kN/m) MD x CD ≥ 14.0 x 7.0, Wide Width Elongation (%) MD x CD ≤ 14.0 x 14.0.	sqm	79.07	78.53	77.04	77.04
3.11.26	JGT_RRC: Supplying and laying of woven type untreated double warp plain weave jute geo-textile (JGT) of different grades conforming to BDS 1909: 2016 for strengthening subgrade of Road & Bridge approach including local handling, unrolling, placing in position, ensuring proper drapability (JGT should touch the ISG surface at all points), stapling JGT by 6mm dia. U-shapped pegs/ hooknails or 37mm long mushroom shaped nails at an interval of 300mm with overlaps of 100mm, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-A (JGT Installation Guideline for Rural Road Construction) of BDS 1909: 2016 and approval of Engineer-In-Charge.					
3.11.26.01	JGT_RRC-1 : Applicable for Strengthening subgrade of Village Roads. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 85 x 32, Width(m) ≥ 1, Mass per unit area (gsm) = 627 ± 10%, Thickness under 2 kPa pressure (mm) = 2.0 ± 10%, AOS (O95) (µm) ≤ 450, Vertical Permeability (m/sec) ≥ 3.0 x10-3, Horizontal Permeability (m/sec) ≥ 7.0 x10-3, Grab Tensile Strength (N) MD x CD ≥ 850 x 200, Grab Tensile Elongation (%) MD x CD ≤ 30 x 35, CBR Puncture Resistance (N) ≥ 2000, Wide Width Tensile Strength (kN/m) MD x CD ≥ 20 x 10, Wide Width Elongation (%) MD x CD ≤ 12 x 10.	sqm	181.69	181.15	179.67	179.67
3.11.26.02	JGT_RRC-2 : Applicable for Strengthening subgrade of Union or Higher Roads. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 94 x 39, Width(m) ≥ 1, Mass per unit area (gsm) = 724 ± 10%, Thickness under 2 kPa pressure (mm) = 2.0 ± 10%, AOS (O95) (µm) ≤ 300, Vertical Permeability (m/sec) ≥ 2.0 x10-3, Horizontal Permeability (m/sec) ≥ 6.0 x10-3, Grab Tensile Strength (N) MD x CD ≥ 925 x 425, Grab Tensile Elongation (%) MD x CD ≤ 35 x 40, CBR Puncture Resistance (N) ≥ 2150, Wide Width Tensile Strength (kN/m) MD x CD ≥ 25 x 10, Wide Width Elongation (%) MD x CD ≤ 15 x 12.	sqm	210.55	210.01	208.53	208.53
3.11.27	S&DSP: Supplying, delivering, assembling & installing of circular steel pipe conforming to ASTM A 252/ AASHTO M 183 of different diameter (internal) to a depth as shown in approved construction drawings for piling works including lowering & pitching the fabricated pipe in position, driving the pipe below bed level through all types of soils, fixing the pipe in position with necessary lateral bracings (if required) etc. for stability until completion of all works, including cost of gas cutting, bending, welding at fabrication shop & construction site, transporting & unloading safely at working site, driving of pipes, all sorts of labour, materials, hire charges of driving equipment, tools, any other related equipment, fuel, lubricants and wages of operational staff, taxes etc. all complete as per design, drawing, specification & direction of E-I-C. Only length of steel pipe driven as per drawing will be paid, wastage shall not be considered for payment. All longitudinal and transverse welds shall be made with full penetration butt welds and adjacent segments shall be rotated 90 degree relative to each other so that longitudinal welds on the fabricated casing are staggered. The outside (expose) surface of the steel pipe shall receive two coats of anti-corrosion tar type paint which shall be approved by the E-I-C and its application shall follow the manufacturer's instructions. If the handling, transportation, driving arrangement requires a greater thickness to avoid deformation or buckling of pipe, the increase in thickness shall be provided by the contractor at his own expense.					
3.11.27.01	200mm internal diameter and 6mm wall thickness	m	5,280.37	5,279.92	5,278.11	5,278.11

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.11.28	PCC Block-17MPa (PW): Manufacturing and supplying Plain Cement Concrete (PCC) Blocks with cement conforming to BDS EN 197-1: 2003 CEM- II/A-M 42.5N, sand of minimum FM 1.5 and 20 mm down well graded Shingles/stone chips(LAA value not exceeding 35) to attain a minimum 28 days cylinder strength of 17.00 MPa (suggested mix proportion 1:2:4), including grading, washings shingles, mixing in standard mixture machine, casting in forms, making shutter watertight properly, compacting by vibrator machine and curing for at least 28 days, including preparation of platform, shuttering and stacking in measurable stacks, cost of all materials, labor, equipment and machinery, work at all leads and lifts, loading and unloading, transportation and all other incidental charges etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Steel shutter shall be used to perform the job.					
3.11.28.01	Size 400mmX400mmX200mm	each	405.22	404.79	394.90	397.33
3.11.28.02	Size 400mmX400mmX150mm	each	304.14	303.81	296.40	298.23
3.11.28.03	Size 400mmX400mmX100mm	each	202.55	202.33	197.39	198.61
3.11.28.04	Size 300mmX300mmX200mm	each	227.83	227.59	222.03	223.40
3.11.28.05	Size 300mmX300mmX150mm	each	171.29	171.11	166.93	167.96
3.11.28.06	Size 300mmX300mmX100mm	each	113.86	113.74	110.96	111.65
3.11.28.07	Cast-in-Situ Blocks of required sizes as per drawing	cum	12,666.67	12,653.14	12,344.15	12,420.31
	Cement Hollow Concrete (PHCC) Blocks with cement conforming to BDS EN 197-1: 2003 CEM- II/A-M 42.5N, sand of minimum FM 1.5 and 20 mm down well graded shingles/stone chips(LAA value not exceeding 35) to attain a minimum 28 days cylinder strength of 17.00 MPa (suggested mix proportion 1:2:4), including grading, washings shingles, mixing in standard mixture machine, casting in forms, making shutter water-tight properly, compacting by vibrator machine and curing for at least 28 days, including preparation of platform, shuttering and stacking in measurable stacks, cost of all materials, labor, equipment and machinery, work at all leads and lifts, loading and unloading, transportation and all other incidental charges etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Steel shutter shall be used to perform the job.					
3.11.29.01	Size 400mmX400mmX200mm; hole diameter = 100mm	each	410.15	409.67	399.58	402.04
3.11.29.02	Size 400mmX400mmX150mm; hole diameter = 100mm	each	308.01	307.65		301.92
3.11.29.03	Size 400mmX400mmX100mm; hole diameter = 100mm	each	204.76			200.71
3.11.29.04	Cast-in-Situ Blocks of required sizes as per drawing	cum	13,374.54	13,358.90	13,030.00	13,110.02
3.11.30	ICC Block-20MPa (PW): Manufacturing and supplying of Interlocking Cement Concrete (ICC) Blocks (Factory made) with necessary interlocking arrangement as per design of suitable size & arrangement with Portland Composite Cement (CEM-II/AM 42.5N), sand (F.M> 1.5) and Shingles/stone chips (20mm downgraded, LAA value not exceeding 35) to attain a minimum 28 days cylinder strength of 20.00 MPa (suggested mix 1:1.5:3), including grading, washing shingles, mixing, laying in forms, consolidating, curing for a at least 28 days, including preparation of platform, shuttering and staking in measurable stacks, cost of all materials, labor, equipment and machinery, work at all leads and lifts, loading & unloading, transportation and all other incidental charges etc. all complete as per drawing, specification & direction of the E-I-C. Steel frame to be used for performing job.(Payment should be made after setting the blocks at site properly)					
3.11.30.01	Thickness 100mm	sqm	1,553.86	1,552.05	1,516.42	1,524.97
3.11.30.02	Thickness 125mm	sqm	1,910.33	1,908.10	1,864.29	1,874.81
3.11.30.03	Thickness 150mm	sqm	2,233.77	2,231.16	2,179.94	2,192.24

Item Code	Brief Description of Item	Unit		nte		
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
3.11.30.04	Suitable size & interlocking arrangement	cum	14,892.99	14,875.61	14,534.12	14,616.10
3.11.31	ICC Block-20MPa (PW): Manufacturing and supplying of Interlocking Cement Concrete (ICC) Blocks (Factory made) with necessary interlocking arrangement as per design of suitable size & arrangement with Portland Composite Cement (CEM-II/AM 42.5N), sand (F.M> 1.2) and Sylhet Sand (F.M>2.5) to attain a minimum 28 days cylinder strength of 20.00 Mpa (suggested mix 1:1.5:2), including grading, washing, mixing, laying in forms, consolidating, curing for at least 28 days, including preparation of platform, shuttering and staking in measurable stacks, cost of all materials, labor, equipment and machinery, work at all leads and lifts, loading & unloading, transportation and all other incidental charges etc. all complete as per drawing, specification & direction of the E-I-C. Steel frame to be used for performing job.(Payment should be made after setting the blocks at site properly). (Suitable size & interlocking arrangement) [Retail]	cum	11,541.46	11,436.51	11,298.57	11,278.72
3.11.31.01	ICC Block-20MPa (PW): Manufacturing and supplying of Interlocking Cement Concrete (ICC) Blocks (Factory made) with necessary interlocking arrangement as per design of suitable size & arrangement with Portland Composite Cement (CEM-II/AM 42.5N), sand (F.M> 1.2) and Sylhet Sand (F.M>2.5) to attain a minimum 28 days cylinder strength of 20.00 Mpa (suggested mix 1:1.5:2), including grading, washing, mixing, laying in forms, consolidating, curing for at least 28 days, including preparation of platform, shuttering and staking in measurable stacks, cost of all materials, labor, equipment and machinery, work at all leads and lifts, loading & unloading, transportation and all other incidental charges etc. all complete as per drawing, specification & direction of the E-I-C. Steel frame to be used for performing job.(Payment should be made after setting the blocks at site properly). (Suitable size & interlocking arrangement) [Bulk]	cum	9,747.20	9,655.93	9,535.99	9,518.72
3.11.32	RCC(TW-600): Construction and Installation in position RCC toe wall as per standard drawing enumerated in Appendix-6 (type design for protective work) with 3.5m long 200mmX200mm RCC Pre-cast Post, 300mmX500mm Capping Beam and 600mm RCC wall having thickness 150mm using 20mm down graded crushed stone chips (LAA value not exceeding 30), sand (minimum FM 2.5) and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N to attain a minimum 28 days cylinder crushing compressive strength 25.00 Mpa (mixing ratio 1:1.5:3 & maximum water cement ratio 0.4) as per standard practice of code AASHTO/ASTM including supplying, fabricating and binding of 400/420 Grade MS deformed bar of required size, length and spacing, excavating minimum 600mm depth foundation trenches for capping beam and laying one layer polythene sheet, casting 75mm thick cement concrete (1:3:6) below the capping beam. Pre-cast Post must be driven by suitable monkey/drop hammer in full length of the post @ 1.0 meter c/c into the ground laying on proper alignment as per design, breaking head (400mm length) of all post carefully, scrapping and removing concrete from Steel/MS rod including all types of form work etc by means approved designed all complete in all respect as per approved drawing, specification and direction of the Engineer-incharge. (Unit cost includes all casting work, reinforcement, its fabrication, shuttering, curing for 28 days, driving of the post, pile shoe, lab testing charges as per design, and all other incidental charges, etc.)	m	18,000.48	18,013.99	17,464.28	17,586.32

Item Code	Brief Description of Item		Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.11.33	Brick (BP-TW): Construction and Installation in position brick palisading work as per standard drawing enumerated in Appendix-6 (type design for protective work) with 375mm thick Brick Masonry work upto 500 mm height from bottom & rest 500 mm height 250mm thick Brick Masonry work and Pre cast RCC Post of 03 (three) meter long (150mmX150mm) and capping beam (200mmX150mm) using 20mm down graded crushed stone chips (LAA value not exceeding 30), sand (minimum FM 2.5) and cement conforming to BDS EN 197-1: 2003 CEM-II/A-M 42.5N to attain a minimum 28 days cylinder crushing compressive strength 25.00 Mpa (mixing ratio 1:1.5:3 & maximum water cement ratio 0.4) as per standard practice of code AASHTO/ASTM including supplying, fabricating and binding of 400/420 Grade MS deformed bar of required size, length and spacing. The pre-cast post must be driven by suitable monkey/drop hammer in 5/6 th of its total length @ 1 m c/c into the ground laying on proper alignment. Brick Masonry work in cement mortar (1:3), filling the interstices tightly with mortar, raking out joints, cleaning and soaking bricks at least for 24 hours before use, washing of sand, including flush pointing at front face of the brick wall with cement mortar (1:2), curing for requisite period, including excavating minimum 575mm depth foundation trenches for brick wall and laying one layer polythene sheet, casting 75mm thick cement concrete (1:3:6) below the 375 mm brick work by means approved designed including form work, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. (Unit cost includes Brick wall, all casting work, reinforcement, its fabrication, shuttering, curing for 28 days, driving of the post, lab testing charges as per design and all other incidental charges, etc.)						
3.11.33.01	with capping beam	m	9,292.18	9,276.43	8,952.30	8,984.26	
3.11.33.02	without capping beam	m	8,198.12	8,180.25	7,891.41	7,914.58	
3.11.34	Minimum 12 mm thick cement sand (F.M. 1.2) plaster (1:4) with fresh cement to both inner-and outer surface of wall, finishing the corner and edges including washing of sand, cleaning the surface, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M). [PWD 15.1.1]	sqm	315.25	314.04	301.55	301.55	
3.11.35	Supplying, laying, fitting and fixing of best quality HDPE soil, waste and ventilation pipe having PE-100 (Hydrostatic Strength for PE-100 is 5.0 MPa & 12.4 Mpa at 80°c & 20°c respectively according to ISO 4427:2007(E)), PN-6 (nominal pressure for PN-6 is 0.6 MPa according to ISO 4427:2007(E)) & SDR 26 for soil, waste and ventilation pressure pipe having density 0.940 – 0.970 gm/cm3 and other physical, chemical, thermal, fire resistivity properties etc. as per BSTI approved manufacturer standards or ASTM/BS/ISO/IS standards ,fitted and fixed in position with necessary joints and fittings with all accesories complete approved and accepted by the Engineer- in- charge. [For underground, including earth cutting & preperation of bed]	m					
3.11.35.01	HDPE pipe of 200 mm outside dia with wall thickness 7.7 mm - 8.6 mm	m	3,240.65	3,240.65	3,240.65	3,240.65	
3.11.36	P&B: Pumping and bailing out water from the interior of any foundation enclosure of work site with all leads and lifts including supply, operation and maintenance of requisite number of water pumps, arrangements for protection of ring bundh and side slopes of foundation pit against erosion or washout etc. It should be carried out in such a manner as to preclude the possibility of the movement of water through or alongside any concrete being placed, etc. all complete as per direction of E-I-C.	hour	477.62	477.62	462.28	462.28	

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1	2	3	4	5	6	7	
Section-12:	Road Safety Works						
3.12.01.1	kmPost: Providing, fitting and fixing rectangular Kilometer Post as per standard drawing enumerated in Appendix-6 (type design for Kilometer post) with Reinforced Cement Concrete (1:2:4) Plate with 20mm down well graded brick chips in correct position true to line and level, including cost of providing 4 nos. of 12mm dia M.S. rods in vertical direction of length 1085mm and 7nos. Of 10mm dia M.S. rods in horizontal direction of length 520mm, RCC Plate firmly fixed to the ground by means properly designed foundation as per approved drawing with 1st class bricks work in cement mortar (1:4), filling the interstices tightly with mortar, raking out joints, cleaning and soaking bricks at least for 24 hours before use, washing of sand, including 6mm thick plaster (1:4) in all exposed portion, curing for requisite period, with two coat of painting on the exposed portion of the post with best quality synthetic enamel paint of approved brand of different shades over a coat of priming, including carriage of the post to the site with loading & unloading and printing of letters and numbers, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	each	3,949.20	3,931.74	3,796.02	3,795.38	
3.12.01.2	RNPlate: Providing, fitting and fixing rectangular Road Name Plate as per standard drawing enumerated in Appendix-6 (type design for Road Name Plate) with Reinforced Cement Concrete (1:2:4) Plate with 20mm down well graded brick chips in correct position true to line and level, including cost of providing 7 nos. of 12mm dia M.S. rods in vertical direction of length 1125mm and 8nos. Of 10mm dia M.S. rods in horizontal direction of length 970mm, RCC Plate firmly fixed to the ground by means properly designed foundation as per approved drawing with 1st class bricks work in cement mortar (1:4), filling the interstices tightly with mortar, raking out joints, cleaning and soaking bricks at least for 24 hours before use, washing of sand, including 6mm thick plaster (1:4) in all exposed portion, curing for requisite period, with two coat of painting on the exposed portion of the post with best quality synthetic enamel paint of approved brand of different shades over a coat of priming, including carriage of the post to the site with loading & unloading and printing of letters and numbers, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	each	7,506.37	7,473.11	7,211.03	7,209.85	
3.12.02	RCC-Gpost: Prroviding, fitting and fixing 200mm dia round RCC Guide Post 1.70m long as per standard drawing enumerated in Appendix-6 (type design for Guide Post) with Reinforced Cement Concrete (1:2:4) with 20mm down well graded brick chips casting, curing for requisite period, including cost of providing 4nos.of 12mm dia. Rod of length 1.65m as main reinforcement and 12 nos. of round shaped 8mm dia rods used as binders; including two coats of painting with best quality synthetic enamel paint over a prime coat of approved brand of different colour and grade to form 6 nos. horizontal alternate bands in whitelyellow and red to 90 cm length standing up above ground, making hole in ground of 800mm depth and 300m minimum dia, fixing the guard posts in the same holes and repacking the earth properly so as to keep the guard posts standing properly erect in correct position true to line and length including carriage of RCC Guide Post with due care to the site including loading into the truck and unloading at site complete in all respect as per approved drawing, specification and direction of the Engineer-incharge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	each	1,868.60	1,861.58	1,828.62	1,827.90	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.12.04	CRS-Plate: Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per standard drawing enumerated in Appendix-6 (type design for Traffic Signs) made of 18 BWG M.S. sheet of equilateral triangle/Circular/Rectangular plates of different sizes as mentioned in the drawing fitted with MS triangular/Rectangular frame of same size as plates by point welding (frames made by thorough welding of 25mmX25mmX3mm MS angle covering all sides of the plates and maximum 150mm center to center in the middle of frames in each vertical & horizontal directions), Plates are fitted with 50mm dia & 2.90mm thick MS pipes by continuous welding, including cutting of MS angle at touched point of MS pipe, including cost of providing 200mm long 4 nos. 12mm dia anchor bars be fitted at the lower part of the GI pipes by welding, making finishing, grinding and carrying to the working sites, the post firmly fixed to the ground by means of properly deigned foundation with cement concrete of minimum cylinder crushing strength of concrete 17.0Mpa at 28 days of curing (Suggested Mix Proportion 1:2:4), 60cm below the ground level, the signs properly erect in correct position, true to line and length, including two coats of painting with best quality synthetic enamel paint of approved brand & printing with retro-reflective paint of different approved colour, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.						
3.12.04.1	600mm equilateral triangle with 671mm X 202mm supplementary Plate (For Precautionary Sign)	each	6,641.79	6,630.19	6,538.35	6,538.35	
3.12.04.2	600mm circular with 600mm X 202mm supplementary Plate (For Compulsory Sign)	each	6,966.68	6,954.91	6,861.42	6,861.42	
3.12.04.3	435mm X 500mm Square with 435mm X 202mm supplementary Plate (For Informative Sign)	each	6,447.28	6,435.79	6,344.87	6,344.87	
3.12.04.4	810mm X 480mm Rectangular (For Informative Sign)	each	6,654.24	6,642.64	6,550.56	6,550.56	
3.12.04.5	600mm X 605mm Rectangular (For Chevron Sign)	each	5,788.81	5,781.76	5,725.13	5,725.13	
3.12.05	Painting the vertical end faces of posts, wheel guard, railing, rail post, parapet wall, kilometer post, road name plate, guide post, traffic signs, etc. in two coats with best quality synthetic enamel paint of approved make and brand of different shades over a coat of priming, applying one vertical and one horizontal coat for each coat and successive coat is to be applied after drying up of previous coat by brush/roller/spray, including cleaning and washing the surface, rubbing and mending good damages as necessary and necessary scaffolding, etc. all complete in all respect as direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.						
3.12.05.1	Two coats over a prime coat for new concrete surface.	sqm	225.20	223.98	213.02	213.02	
3.12.05.2	Two coats for old concrete surface and steel surface.	sqm	133.57	132.87	126.61	126.61	
3.12.06	Painting and writing on kilometer post, road name plate, traffic signs, etc. in two coats with best quality synthetic enamel paint of approved make and brand of different shades, applying one vertical and one horizontal coat for each coat and successive coat is to be applied after drying up of previous coat by brush/roller/spray with cleaning and washing the surface, rubbing and mending good damages as necessary and necessary scaffolding, including printing new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade etc. all complete in all respect as direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	sqm	333.44	332.11	314.54	314.54	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
3.12.07	RMP: Providing and applying road marking paint (lines, dashes, arrows, etc.) on road hump, pedestrian crossing, lane line, warning line, barrier line, edge line, zig-zag line, give-way marking, etc. on road/plain surface by brush/roller in two coats with ready mixed road marking paint, including cleaning the surface of all dirt, oils, grease, dust and other contaminants, demarcation at site and traffic control involved. The finished surface to be level, uniform and free from streaks and holes, etc. all complete in all respect as direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour machinery, lighting, guarding, maintenance of diversion and all incidental charges in this connection.						
3.12.07.1	Two coats for new surface	sqm	404.76	404.12	398.32	398.32	
3.12.07.2	Two coats on old surface	sqm	329.94	329.38	324.30	324.30	
3.12.08.01	RMP(By-TPC): Providing and applying road markings of center line and stop line etc. with 5mm to 7mm thick hot applied thermoplastic compound including reflectorising glass beads @ 250mgs per sqm area by special applicator machine on road/plain surface, including cleaning the surface of all dirt, oils, grease, dust and other contaminants, demarcation at site and traffic control involved, the finished surface to be level, uniform and free from streaks and holes, etc. all complete in all respect as direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour machinery, lighting, guarding, maintenance of diversion and all incidental charges in this connection.	sqm	1,086.20	1,083.40	1,073.93	1,073.93	
3.12.08.02	RMP(By-TPC): Providing and applying road markings of center line and stop line etc. With minimum 5 to 6 mm thick hot applied white/yellow thermoplastic compound (The materials shall comply with BS3262:1987' Specification for Hot-applied Thermoplastic Road Marking Materials') by special applicator machine on road/plain surface, including cleaning the surface of all dirt, oils, grease, dust and other contaminants, demarcation at site and traffic control involved, the finished surface to be level, uniform and free from streaks and holes, etc. all complete in all respect as direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour machinery, lighting, guarding, maintenance of diversion and all incidental charges in this connection.	sqm	963.35	960.54	951.07	951.07	
3.12.10	RRSheeting: Supplying and fixing retro-reflectorised reflective sheeting on cautionary, mandatory and informatory traffic signs with honey comb retro-reflectorised (encapsulated lens type) reflective sheet of approved brand of different colour, including cleaning and washing the surface and necessary scaffolding, etc. including carriage of sheet to the site and fixing, etc. all complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	sqm	3,076.77	3,074.93	3,070.64	3,070.64	
3.12.11	AR-Paint: Supplying & providing flexible and acrylic type reflectorized traffic painting/ coating on rail post, rail bar, wheel guard, Guide Post, Pier column etc. Including cleaning the surface of all dirt, oils, grease, dust and other contaminants, demarcation at site and traffic control involved. The finished surface to be level, uniform and free from streaks and holes, etc. all complete in all respect as direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour machinery, lighting, guarding and all incidental charges in this connection.	sqm	662.15	664.85	648.28	648.28	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
	4 : Bridge Works						
	General, Site Facilities, Environmental Mitigation	& Enha	ncement Wo	orks			
4.01.01	Dismantling of existing/ damaged structures like culverts, bridges, retaining walls comprising of masonry, cement concrete, wood work, steel work by manual/ mechanical means and sorting the dismantled material, disposal of unserviceable material and stackting the serviceable material with all lifts and lead up to 1000 meters including scrapping and removing concrete from MS rods, preparation and erection of platform where necessary, carrying, all sorts of handling, stacking the same properly after clearing, leveling and dressing the site and clearing the river/canal bed, etc. all complete as per direction of the E-I-C. Cost of conveying, loading, transportation of unserviceable material accumulated during dismantling operation is included in this unit rate. The unserviceable material must be disposed at a safe place outside the site premises with minimum traffic disruption and the procuring entity will not provide any environmentally safe place for disposing the unserviceable materials.						
4.01.01.01	RCC works						
4.01.01.01.01	Case I: By Manual Means	cum	2,566.45	2,527.28	2,365.46	2,365.46	
4.01.01.01.02	Case II: By Manual Means submersed in water	cum	3,849.67	3,790.92	3,548.19	3,548.19	
4.01.01.01.03	Case III: By Mechanical Means	cum	2,737.55	2,720.33	2,675.19	2,675.19	
4.01.01.01.04	Case IV: By Mechanical Means submersed in water	cum	4,106.32	4,080.50	4,012.78	4,012.78	
4.01.01.02	PCC Works						
4.01.01.02.01	Case I: By Manual Means	cum	1,048.74	1,034.83	981.74	981.74	
4.01.01.02.02	Case II: By Manual Means submersed in water	cum	1,573.11	1,552.24	1,472.62	1,472.62	
4.01.01.02.03	Case III: By Mechanical Means	cum	1,601.00	1,592.86	1,574.20	1,574.20	
4.01.01.02.04	Case IV: By Mechanical Means submersed in water	cum	2,401.50	2,389.29	2,361.30	2,361.30	
4.01.01.03	Brick Works						
4.01.01.03.01	Case I :By Manual/ Mechanical Means	cum	749.84	741.59	709.90	709.90	
4.01.01.03.02	Case II :By Manual/ Mechanical Means submersed in water	cum	1,124.75	1,112.39	1,064.84	1,064.84	
4.01.01.04	Steel Work in all types of sections upto a height of 10m above plinth level including cutting of rivets.						
4.01.01.04.01	Case I: Including dismembering	MT	3,620.71	3,579.78		3,352.73	
4.01.01.04.02	Case II: Excluding dismembering	MT	2,771.12	2,735.19	2,570.87	2,570.87	
4.01.01.05	Wood Work wrought framed and fixed in frames of trusses upto a height of 10 m above plinth level	cum	1,273.95	1,262.40	1,193.55	1,193.55	
4.01.01.06	Dismantling wooden bullah in posts and structs	m	27.80	27.31	26.19	26.19	
4.01.01.07	Scraping of Bricks dismantled from Brick Work including Stacking	1000 nos.	2,465.10	2,418.72	2,241.78	2,241.78	
4.01.01.08	Removing & disposing all types of Pre-cast/ cast-in-situ pipes including Earthwork and Dismantling of Masonry Works.						
4.01.01.08.01	Up to 600mm diameter	m	365.65	358.78	332.52	332.52	
4.01.01.08.02	For 600mm to 900mm diameter	m	494.49		449.71	449.71	
4.01.01.08.03	For above 900mm diameter	m	846.65	830.70	769.96	769.96	
4.01.11	Overall environment management in addition to the clause 27 & 29 of GCC to the entire satisfaction of Engineer-in-charge						
4.01.11.01	Improvement of Waste Disposal Facility for temporary camp site. There should be atleast one camp in each site, there should be 1 no of organic waste and 1 no of inorganic waste disposal facility.	each	12,883.78	12,883.78	12,883.78	12,883.78	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.02.01	Topographical Survey, Geotechnical Investigation Conducting detailed topographical survey by electronic total station (digital survey equipment) and investigation and collection of hydraulic data (essential design data as per appraisal format for bridges and culvert) regarding catchment area, L-section of road and canal, X-section of canal at the point of crossing at upstream and	i & Pier	Jaration of K	ероп			
	down stream as well as making of HFL/OFL, transferring and fixing of pucca bench mark at site, to pin point all salient features such as roads, building, trees, water body, play field, green area, water supply lines, sewer lines, electric/ telephonic lines with poles, wells etc., taking all the boundary measurement, internal angles, North direction, preparation of survey drawing including spot levels/ contours ongrids 5m x 5m and plotting on AutoCAD etc. complete including of all necessary material and labour required for survey work. Contractor shall submit final topographical survey drawings in five copies duly spiral binded along with soft copy.						
4.02.01.01	For catchment area less then 1.25 sq. Km.	each	37,117.57	37,117.57	37,117.57	37,117.57	
4.02.01.02	For catchment area less then 1.25 to 2.50 sq. Km.	each	74,235.14	·		74,235.14	
4.02.01.03 4.02.02	For catchment area beyond then 2.50 sq. Km. Survey and investigation and preparation of Report for bridge	each	103,929.19	103,929.19	103,929.19	103,929.19	
	approach road work with chain and compass, auto level, theodolite or total station including fixing of permanent benchmark and also fixing of bench mark on all the permanent structures, along the alignment, like boundary wall, electrical poles etc. Also marking of locations of boundary wall, electric poles, telephone poles trees etc. in the road boundary, collection and submission of existing inventory of the road all along the alignment conducting survey@20 metre interval for L-section and for single lane X-section interval will be @ 0.75, 1.25, 1.875, 2.60, 3.75, 4.50, 5.50 and 6.50 metre on both side of centre line for double or other lane interval for x-section shall be as specified by the E-I-C. Data collected as specified above are required to be submitted in both hard and soft copies, L-section, X-section and plan is required to be submitted in the shape of drawing sheets drawn with the help of auto plotter. Preparation of report complete and submission of the same in five copies duly spiral binded.						
4.02.02.01	For single lane road	km	22,270.54	22,270.54	22,270.54	22,270.54	
4.02.02.02	For double lane road	km	28,951.70	28,951.70	28,951.70	28,951.70	
4.02.02.03	Beyond the double lane	km	35,632.86	35,632.86	35,632.86	35,632.86	
	Temporary bamboo/ wooden Bridge & Diversion	road					
4.03.01	Construction of 2m wide temporary bamboo diversion bridge with 100mm average dia pucca borak bamboo in 4 (four) lines of posts longitudinally and required lines of posts 2m c/c transversely with beams and struts and every post with double bracing's and each post driven to at least 0.75m depth including half split bamboo decking including supplying nuts, bolts, etc. fitting, fixing and supply, carrying and cost of all materials & labour, etc. all complete as per direction of the Engineer.	m	3,727.71	3,706.11	3,650.41	3,650.41	
4.03.02	Construction of 0.25m width bamboo sanko with 100mm dia pucca borak bamboo posts of required length @2.5m c/c driven at least 1m below ground level of stream with 75mm dia full bamboo decking beams, breaching diagonals with 100mm dia bamboo including fitting, fixing to complete satisfaction including supply of nails, nuts, bolts, etc. all materials, carrying and labour, etc. all complete as per direction of the Engineer.	m	1,668.76	1,656.49	1,622.74	1,622.74	
4.03.03	MS work in timber/ Iron bridge or timber/ Iron structure including the supply, carrying and fitting of specified approved nuts, bolts, hinges, cleats, screws, washer, fish plate of specified and approved size and make, etc. all complete as per drawing and direction of the E-I-C.	kg	140.00	140.00	136.14	136.14	

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1	2	3	4	5	6	7	
4.03.04	Wood work with specified timber of different sizes in superstructure of timber bridges i.e. bracing's, struts, diagonals, beams, cross beams, decking, railings, etc. including supply and carrying of timber, sizing and shaping, fitting, fixing with nut, bolt, nails, screw, washer including providing fish plate, etc. all complete as per design. The wood must be free from rots, knots, sap and shall be seasoned and creosoted with creosote oil, etc. all complete including supply, carrying and cost of all materials and labour, etc. all complete as per direction of the E-I-C.						
4.03.04.01	Jam (Black Berry/Jarul/Local Korai)	cum	114,239.90	109,513.39	114,933.17	114,933.17	
4.03.04.02	Chittagong Silkorai	cum	127,239.02	126,846.37	125,766.59	125,766.59	
4.03.04.03	Sundari/ Garjan	cum	114,239.90	109,513.39	114,933.17	114,933.17	
4.03.04.04	Shisu/ Mehagoni	cum	105,573.41	105,180.76	104,100.97	104,100.97	
4.03.04.05	Shal	cum	114,239.90	109,513.39	114,933.17	114,933.17	
4.03.04.06	Babla	cum	74,124.70	73,732.05	72,652.27	72,652.27	
Section-04:	Bailey Bridge (PSB), Steel pontoon and Steel Brid	ge	•	•			
4.04.01	PSB-LE: Labour charge for erecting and assembling of PSB, fitting, fixing in proper position and providing necessary decking by arrangement of all necessary tools and equipment including local handling of bridge parts and all incidental charges, etc. all complete as per direction of the E-I-C.						
4.04.01.01	Single Bailey Bridge or Acrow panel.	m	8,369.48	8,204.38	7,620.18	7,620.18	
4.04.01.02	Double single Bailey Bridge or Acrow panel.	m	9,829.13	9,635.23	8,949.14	8,949.14	
4.04.01.03	Calender Hamilton truss bridge	m	40,319.99	39,523.98	36,710.90	36,710.90	
4.04.01.04	Indian quadricon bridge	m	32,810.03	32,162.76	29,872.59	29,872.59	
4.04.01.05	UCB and Chinese truss bridge	m	48,799.60	47,837.06	44,430.80	44,430.80	
4.04.02	PSB-LD: Labour charge for delaunching of PSB with all necessary arrangements including necessary decking by arrangement of all necessary tools and equipment, all incidental charges, etc. all complete as per direction of the E-I-C.						
4.04.02.01	Single Bailey Bridge or Acrow panel bridge.	m	5,971.85	5,853.89	5,437.20	5,437.20	
4.04.02.02	Double single Bailey Bridge or Acrow panel bridge.	m	7,168.18	7,026.59	6,526.42	6,526.42	
4.04.02.03	Calender Hamilton truss bridge.	m	29,505.72	28,922.86	26,864.16	26,864.16	
4.04.02.04	Indian quadricon bridge	m	23,778.86	23,309.16	21,650.06	21,650.06	
4.04.02.05	UCB and Chinese truss bridge	m	35,175.46	34,480.69	32,026.30	32,026.30	
4.04.05	IB: Elements of Iron bridge as per design, drawing, specification and direction of Engineer-in-charge.						
4.04.05.01	IB-SCIS: Supplying CI Shoe of specified diameter including fitting, fixing etc. all complete as per direction of the E-I-C.						
4.04.05.01.01	IB-SCIS_300: For 300mm diameter, Weight of each shoe should be at least 45 kg	each	4,724.05		4,708.72	4,708.72	
4.04.05.01.02	IB-SCIS_450: For 450mm diameter, Weight of each shoe should be at least 70 kg	each	7,275.04		7,257.86	7,257.86	
4.04.05.01.03	IB-SCIS_600: For 600mm diameter, Weight of each shoe should be at least 90 kg	each	9,313.14			9,294.73	
4.04.05.01.04	IB-SCIS_750: For 750mm diameter, Weight of each shoe should be at least 135 kg	each	13,969.70	13,964.18	13,942.09	13,942.09	
4.04.05.02	IB-SCIC: Supplying CI Cap of standard size to fit on single/ double E.I. Rail, with necessary fittings etc. all complete as per direction of the E-I-C.						
4.04.05.02.01	IB-SCIC_SH: CI Cap (Single Headed)	each	2,377.36	2,374.30	2,362.03	2,362.03	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.04.05.02.02	IB-SCIC_DH: CI Cap (Double Headed)	each	2,690.26	2,685.96	2,668.78	2,668.78
4.04.05.03	IB-SEIR: Supplying Double headed/ Flat Footed El rail of standard size at site to construct iron bridge including necessary fitting, fixing, drilling the hole and priming a coat of red oxide etc. all complete as per direction of E-I-C.	kg	129.11	128.69	128.06	128.06
4.04.05.04	IB-SRSJ: Supplying RS joist of different sizes at site to construct iron bridge including fitting, fixing etc. all complete as per direction of E-I-C.	kg	123.93	123.68	123.32	123.32
4.04.05.05	IB-SMSA: Supplying MS Angle, flat bar of different sizes or sections including fitting, fixing etc. all complete as per direction of the E-I-C.	kg	104.30	103.68	102.76	102.76
4.04.05.06	IB-LE: Labour for erection of EI Rail including hoisting and placing in position etc. all complete as per direction of the E-I-C.	m	570.94	561.73	524.92	524.92
4.04.05.07	IB-LD: Labour for driving EI Rail post with specified diameter CI shoe with all driving arrangements (only under ground portion with shoe will be considered for measurement) etc. all complete as per direction of the E-I-C.					
4.04.05.07.01	IB-LD_300: For 300mm dia CI shoe	m	1,098.95	1,078.97	999.05	999.05
4.04.05.07.02	IB-LD_450: For 450mm dia CI shoe	m	1,214.76	1,192.67	1,104.32	1,104.32
4.04.05.07.03	IB-LD_600: For 600mm dia CI shoe	m	1,358.50	1,333.80	1,235.00	1,235.00
4.04.05.07.04	IB-LD_750: For 750mm dia CI shoe	m	1,644.98	1,615.07	1,495.44	1,495.44
4.04.05.08	IB-LT: Labour for taking out El Rail post with specified diameter Cl shoe (Portion embedded within earth only will be paid) etc. all complete as per direction of the E-I-C.					
4.04.05.08.01	IB-LT_300: For 300mm dia CI shoe	m	776.09	761.98	705.54	705.54
4.04.05.08.02	IB-LT_450: For 450mm dia CI shoe	m	995.43	977.33	904.93	904.93
4.04.05.08.03	IB-LT_600: For 600mm dia CI shoe	m	1,214.76	1,192.67	1,104.32	1,104.32
4.04.05.08.04	IB-LT_750: For 750mm dia CI shoe	m	1,476.27	1,449.43	1,342.06	1,342.06
4.04.05.09	IB-LU: Labour for utilizing RS joist/ MS Angle, flat bar of different sizes or section including fitting, fixing, drilling hole etc. all complete as per direction of the E-I-C.	kg	14.72	14.23	13.50	13.50
4.04.05.10	IB-DES: Dismantling of existing/ damaged iron bridge structures including RCC deck slab and any type of RCC/brick works as per direction of the E-I-C. Measurement shall be taken only in lengths of bridge as actually dismantled.					
4.04.05.10.01	IB-DES_UZR4.201: For Light Traffic Bridge of carriageway width 4.20m on Upazila Road, including cost of taken out El Rail of driving	m	11,424.19	11,222.72	10,488.66	10,488.66
4.04.05.10.02	IB-DES_UNR3.66I: For Jeepable Bridge of carriageway width 3.66m on Union Road, including cost of taken out El Rail of driving	m	9,450.62	9,284.93	8,677.80	8,677.80
4.04.05.10.03	IB-DES_VR3.05I: For Non-motorized Bridge of carriageway width 3.05m on Village Road, including cost of taken out El Rail of driving	m	7,963.63	7,822.23	7,294.40	7,294.40
4.04.05.10.04	IB-DES_VR2.44I: For Pedestrian Bridge of carriageway width 2.44m on Village Road, including cost of taken out El Rail of driving	m	6,608.33	6,485.00	6,034.61	6,034.61
4.04.05.10.05	IB-DES_UZR4.20E: For Light Traffic Bridge of carriageway width 4.20m on Upazila Road, excluding cost of taken out El Rail of driving	m	5,500.23		5,103.23	5,103.23
4.04.05.10.06	IB-DES_UNR3.66E: For Jeepable Bridge of carriageway width 3.66m on Union Road, excluding cost of taken out El Rail of driving	m	4,417.48		4,102.22	4,102.22
4.04.05.10.07	IB-DES_VR3.05E: For Non-motorized Bridge of carriageway width 3.05m on Village Road, excluding cost of taken out El Rail of driving	m	2,930.49	2,880.60	2,718.81	2,718.81
4.04.05.10.08	IB-DES_VR2.44E: For Pedestrian Bridge of carriageway width 2.44m on Village Road, excluding cost of taken out El Rail of driving	m	1,575.19	·	1,459.03	1,459.03
4.04.05.10.09	IB-DES_UZR4.20: For Light Traffic Bridge of carriageway width 4.20m on Upazila Road, excluding cost of steel frame work and taken out El Rail of driving	m	4,319.59	4,247.29	4,014.60	4,014.60

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.04.05.10.10	IB-DES_UNR3.66: For Jeepable Bridge of carriageway width 3.66m on Union Road, excluding cost of steel frame work and taken out El Rail of driving	m	3,543.53	3,485.22	3,296.36	3,296.36
4.04.05.10.11	IB-DES_VR3.05: For Non-motorized Bridge of carriageway width 3.05m on Village Road, excluding cost of steel frame work and taken out El Rail of driving	m	2,180.12	2,143.87	2,026.92	2,026.92
4.04.05.10.12	IB-DES_VR2.44: For Pedestrian Bridge of carriageway width 2.44m on Village Road, excluding cost of steel frame work and taken out EI Rail of driving	m	1,298.17	1,276.02	1,205.25	1,205.25
4.04.05.11	IB-W: Providing and making specified welding conforming to AWS D1.4 by electric arc welding for construction of Iron Bridge with highly oxidized electrodes making the points prominent and accepted by the Engineer-in-charge. The cost of all materials, labour, tools and plants, electricity and all equipment is included in this unit rate. Welding shall be carried out under the continuous direction of an experienced and competent superisor. [Direct type Lap-welded splice over one side of contact by welding of minimum length not less than 10 times of section thickness unless otherwise mentioned in the working drawing]	m	256.18	256.18	252.34	252.34
4.04.06	SSW_SF: Supply and fabrication of structural steel work in accordance with relavant ASTM/ AASHTO codes comprising of Main Girders, Cross Girders, Connecting plates, stringer, stiffening plates etc. intended for use in bridges and delivery at bridge site including straightening, descaling, degreasing, cutting to size and shape, drilling, welding conforming to AWS D 1.5M, grinding, removing rust with blast cleaning, trial assembling at workshop, one priming coat of shop paint with red oxide paint conforming to ASTM D83 with all labour, material, paints, consumables, stacking in protected condition, cost of testing at national accredited test authority/ BUET etc. as per approved drawing, specification and direction of E-I-C.					
4.04.06.01	Grade 345: Box & I Sections in accordance with ASTM A 709M/ AASHTO M 270 of Grade 345, 345S, 345W or HPS 345W	kg	178.94	178.94	178.94	178.94
4.04.06.02	Grade 485W: Decking Sheet in accordance with ASTM A 709M/ AASHTO M 270 of Grade 485W or HPS 345W	kg	181.35	181.35	181.35	181.35
4.04.06.03	Grade 250: Structural Steel sections such as columns, beams, bracings etc. in accordance with ASTM A 36M of Grade 250					
4.04.06.03.01	Grade 250BU: Built-up Sections	kg	127.40	127.40	127.40	127.40
4.04.06.03.02	Grade 250HR: Hot-rolled Sections (W, H, I-shape, Channel, Angle, Tube etc.)	kg	144.71	144.71	144.71	144.71
4.04.07	SSW_Bolt: Supply and installation of high-strength structural bolts of variable diameter with nut and washer for structural steel joints intended for use in bridges in accordance with ASTM/ AASHTO code including cost of hot-dip zinc coating on steel bolt conforming to ASTM A 153M/ AASHTO M232 and cost of testing at international/national accredited test authority/ BUET etc. as per approved design, drawing, specification and direction of E-I-C.	kg				
4.04.07.01	SSW_Bolt_325: Structural bolts in accordance with ASTM A325M/ AASHTO M 164M Type 1	kg	360.38	360.38	360.38	360.38
4.04.07.02	SSW_Bolt_490: Structural bolts in accordance with ASTM A490 Type 1	kg	507.62	507.62	507.62	507.62
4.04.08	SSW_SS: Supply and fabrication of Stud shear connectors of varying diameter conforming to ASTM A 108M including cost of testing at international/national accredited test authority/ BUET etc. as per approved design, drawing, specification and direction of E-I-C. [PWD 10.16]	kg	169.00	169.00	169.00	169.00

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1	2	3	4	5	6	7	
4.04.09	SSW_AE: Assembling and erection of fabricated steel structure to proper line, level and camber as per approved drawings complete in all respect including transportation and handling supply of all fasterners. Painting of all exposed surface of steel work after erection with one coat of red oxide confirming to ASTM D 83 and two coats Aluminium paint confirming to ASTM A 463, grouting of anchor bolts in position, including all labour, consumables, materials, machinery, tools and tackles, erection cum dismandling of staging, scaffolding & falsework etc. complete as per specification and as directed by the E-I-C. A full proof method statement of erection programe at site has to be submitted and get approved before starting the erection program.	kg	21.27	21.27	21.27	21.27	
4.04.10	TSB: Transportation of Iron/ Bailey/ Steel Bridge Superstructure (Complete Sets) from LGED's Central/ Regional/ District Stack-yard or Source to the bridge construction site and stacking at proper place including loading, unloading, local handling as per design, drawing, specifications and direction of E-I-C.						
4.04.10.01	TSB_50: Within 50km of Stack-yard/ source to site	MT	2,115.30	2,100.45	2,053.88	2,053.88	
4.04.10.02	TSB_50+: Additional charge Beyond 50km of Stack-yard/ source to site	MT-Km	9.26	9.26	9.26	9.26	
Section-05:	Excavation, Dewatering, Artificial Island & Coffer	dam	•				
4.05.01	Earth work in excavation of foundation of structures by mechanical (Hydraulic excavator - Long Boom)/ manual means in all sorts of soil up to specified depth in accordance with requirements of lines, grades, cross sections and elevation as shown in the drawing including setting out, removal of stumps, logs, boulders and other deleterious materials, providing necessary tools and plants, construction of shoring and bracing, cleaning the excavated materials to a safe distance out of the site premises, cut to a firm surface including pumping/ bailing out water, removal of spoils to a safe distance, dressing of sides and bottom and backfilling of trenches up to original level with approved material etc. all complete as per approval of E-I-C. Contractor shall get acquainted with site conditions, nature of soil and adopt suitable adequate dewatering system as deemed fit for the nature of soil and prevailing water table to get the surface reasonably dry for laying PCC at the time of execution so that execution will not be hampered or delayed. Backfilled materials shall be compacted to a density comparable with the adjacent undisturbed material.						
4.05.01.01	Earth work in Ordinary Soil by Manual Means for an initial lead up to 30m						
4.05.01.01.01	For depth up to 3m	cum	223.93	220.25	203.99	203.99	
4.05.01.01.02	For depth 3m to 6m	cum	257.68	253.38	234.67	234.67	
4.05.01.01.03	For depth above 6m	cum	426.39	419.03	388.05	388.05	
4.05.01.02	Earth work in Ordinary Soil by Mechanical Means (Hydaulic Excavator) for an initial lead of 30m						
4.05.01.02.01	For depth up to 3m	cum	121.49	121.12	119.63	119.63	
4.05.01.02.02	For depth 3m to 6m	cum	135.86	135.41	133.61	133.61	
4.05.01.02.03	For depth above 6m	cum	153.95	153.41	151.23	151.23	
4.05.01.03	Earth work in Rocky, gravelly, slushy or organic type Soil by Manual Means for an initial lead of 30m						
4.05.01.03.01	For depth up to 3m	cum	291.42	286.51	265.34	265.34	
4.05.01.03.02	For depth 3m to 6m	cum	392.65	385.90	357.37	357.37	
4.05.01.03.03	For depth above 6m	cum	460.14	452.16	418.72	418.72	
4.05.01.04	Earth work Rocky, gravelly, slushy or organic type Soil by Mechanical Means (Hydaulic Excavator) for an initial lead of 30m						
4.05.01.04.01	For depth up to 3m	cum	133.63	133.22	131.59	131.59	
4.05.01.04.02	For depth 3m to 6m	cum	150.68	150.15	148.01	148.01	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.05.01.04.03	For depth above 6m	cum	171.77	171.09	168.34	168.34	
4.05.02	Disposing surplus excavated soils of all types outside the site premises up to a lead of specified distance including cost of labour, cost of equipment and machinery, loading and unloading at both ends, transportation, all other incidental charges at all leads and lifts etc. complete as per approval of the E-I-C. The surplus excavated material must be dumped in an unobjectionable place outside the site premises with minimum traffic disruption and the procuring entity will not be responsible for any irregularities by the party regarding disposing of the earth.			24.70		20.00	
4.05.02.01	Lead up to 500m	cum	64.90	64.76	63.85	63.85	
4.05.02.02	Lead 500m to 1km	cum	71.74	71.60	70.70	70.70	
4.05.02.03	Lead 1km to 2km	cum	85.44	85.30	84.39	84.39	
4.05.02.04	Lead 2km to 3km	cum	99.13	98.99	98.08	98.08	
4.05.02.05	Lead 3km to 4km	cum	112.83	112.69	111.78	111.78	
4.05.02.06	Lead 4km to 5km	cum	126.52	126.38	125.47	125.47	
4.05.02.07	Lead above 5km	cum	140.21	140.07	139.16	139.16	
4.05.03	P&B: Pumping and bailing out water from the interior of any foundation enclosure of work site with all leads and lifts including supply, operation and maintenance of requisite number of water pumps, arrangements for protection of ring bundh and side slopes of foundation pit against erosion or washout etc. It should be carried out in such a manner as to preclude the possibility of the movement of water through or alongside any concrete being placed, etc. all complete as per direction of E-I-C.	hour	477.62	477.62	462.28	462.28	
4.05.04	RB: Making arrangement of artificial ring bundh for construction of pile/ pile cap in river/channel having standing water not greater than 3 meter with supplying and driving sal-bullah (150mm to 200mm dia) up to required depth, tarja, drum sheet, soil filled Geobag and all other necessary iron fitting, earth arranged and carried by contractor by any means including cost of all materials required for the work and maintaining the same till the completion of the main component of the structure for which the ring is made, etc. all complete as per direction of the Engineer-in-Charge. Contractor shall submit the design calculations and methodology which must be compatible with the weather conditions, waves, currents, construction equipment, construction method, internal permanent structures and ground condition. Contractor shall take necessary safety measure for the construction of earthen ring/cross bundh and responsible for all obligations. The temporary arrangement is to be completely removed on completion of the main component of the structure. Note: Additional payment for pumping & bailing out of water will not be given						
4.05.04.01	RB_2: For 3m wide & 2m high earthen ring bundh constructed by driving 2/3rd part of 7m long wooden bullah at 500mm c/c in the outer side and driving bullah of same length at 750mm c/c in the inner side, placing tarza & dram sheet including lapping of min. 150mm, polythene sheet, soil filled geobag in the outer side, wooden bracing with 50mm x 50mm at 600mm c/c vertically, cross bracing with 12 BWG GI wire @ 1500mm c/c, bailing out of standing water from inner portion of ring bundh etc. [For depth of standing water: Up to 2m]	m	33,392.67	33,183.93	32,173.21	32,173.21	
4.05.04.02	RB_2+: For 3m wide & 3m high earthen ring bundh constructed by driving 2/3rd part of 9m long wooden bullah at 500mm c/c in the outer side and driving same length bullah at 750mm c/c in the inner side, placing tarza & dram sheet including lapping of min. 150mm, polythene sheet, soil filled geobag in the outer side, wooden bracing with 50mm x 50mm at 600mm c/c vertically, cross bracing with 12 BWG GI wire @ 1500mm c/c, bailing out of standing water from inner portion of ring bundh etc. [For Depth of standing water: Above 2m and up to 3m]	m	43,752.17	43,479.04	42,163.11	42,163.11	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.05.05	Al: Making artificial island in river/channel having standing water suitable for well sinking/ cast-in-situ bored pile with supplying and driving sal-bullah (150mm to 200mm dia) and bamboo posts (75mm to 100mm dia) up to required depth, tarja walling and all other necessary iron fitting, earth arranged and carried by contractor by any means including cost of all materials required for the work and maintaining the same till the completion of the main component of the structure for which the island is made, etc. all complete as per direction of the Engineer-in-Charge. The structures are to be completely removed on completion of the main component of the structure.						
4.05.05.01	Beyond 900mm and up to 1500mm of standing water						
4.05.05.01.01	For 3000mm x 6000mm wells	each	165,743.13	164,344.32	157,693.83	157,693.83	
4.05.05.01.02	For 3000mm x 7200mm wells	each	182,096.95	180,563.16	173,267.26	173,267.26	
4.05.05.01.03	For 3600mm x 7200mm wells	each	183,962.03	182,415.97	175,055.65	175,055.65	
4.05.05.01.04	For 3000mm x 8100mm wells	each	192,980.68	191,361.00	183,646.07	183,646.07	
4.05.05.01.05	For 3600mm x 8100mm wells	each	196,972.19	195,315.71	187,430.83	187,430.83	
4.05.05.01.06	For 3300mm x 8400mm wells	each	198,827.46	197,158.70	189,210.02	189,210.02	
4.05.05.01.07	For 3900mm x 7800mm wells	each	200,199.28	198,518.25	190,512.51	190,512.51	
4.05.05.01.08	For 4800mm x 7800mm wells	each	202,054.54	200,361.24	192,291.70	192,291.70	
4.05.05.02	Extra for each additional 300mm above 1500mm and upto 3000mm depth of water						
4.05.05.02.01	For 3000mm x 6000mm wells	each	179,002.58	177,491.86	170,309.34	170,309.34	
4.05.05.02.02	For 3000mm x 7200mm wells	each	207,590.52	205,842.00	197,524.68	197,524.68	
4.05.05.02.03	For 3600mm x 7200mm wells	each	211,556.33	209,778.37	201,314.00	201,314.00	
4.05.05.02.04	For 3000mm x 8100mm wells	each	221,927.78	220,065.15	211,192.98	211,192.98	
4.05.05.02.05	For 3600mm x 8100mm wells	each	226,518.02	224,613.06	215,545.46	215,545.46	
4.05.05.02.06	For 3300mm x 8400mm wells	each	228,651.58	226,732.51	217,591.52	217,591.52	
4.05.05.02.07	For 3900mm x 7800mm wells	each	230,229.17	228,295.99	219,089.39	219,089.39	
4.05.05.02.08	For 4800mm x 7800mm wells	each	234,383.27	232,419.04	223,058.37	223,058.37	
4.05.05.03	Extra for each additional 300mm above 3000mm and up to 4500mm depth of water						
4.05.05.03.01	For 3000mm x 6000mm wells	each	192,262.03	190,639.41	182,924.85	182,924.85	
4.05.05.03.02	For 3000mm x 7200mm wells	each	213,053.43	211,258.90	202,722.69	202,722.69	
4.05.05.03.03	For 3600mm x 7200mm wells	each	217,075.19	215,250.85	206,565.67	206,565.67	
4.05.05.03.04	For 3000mm x 8100mm wells	each	227,717.20	225,805.98	216,702.36	216,702.36	
4.05.05.03.05	For 3600mm x 8100mm wells	each	234,396.91	232,425.69	223,042.69	223,042.69	
4.05.06	Making temporary artificial island in river/ channel required for cast-in-situ bored pile with supplying and driving bamboo posts of 75 to 100mm diameter at specified spacing up to required depth with nails, driving additional gazari/ shalbullah posts of 150 to 175mm diameter at specified spacing up to required depth & half split bullah bracing at top level for longer depth, dram sheet walling & internal cross tie by re-bar with specified diameter & spacing and all other necessary iron fitting, earth arrangement and carried by contractor by any means including cost of all materials required for the work and maintaining the same till the completion of the work for which the island is made. The structures are to be completely removed on completion of the work and the cost is inclusive of this element also.						
4.05.06.01	For depth up to 2.0m: Spacing of bamboo posts: 250mm c/c, internal cross ties: 12mm dia re-bar @ 2m c/c						

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.05.06.01.01	Size of Island: 11m x 15m	each	181,757.89	180,797.37	176,844.72	176,844.72	
4.05.06.01.02	Size of Island: 11m x 18m	each	203,568.84	202,493.06	198,066.09	198,066.09	
4.05.06.01.03	Size of Island: 11m x 20m	each	219,927.05	218,764.82	213,982.11	213,982.11	
4.05.06.02	For depth above 2.0m: Spacing of bamboo post: close hole, spacing of Gazari/ Shalbullah posts: 1m c/c, internal cross ties: 16mm dia. rebar at alternate bullah post.						
4.05.06.02.01	Size of Island: 11m x 15m	each	576,310.84	574,056.79	562,134.36	562,134.36	
4.05.06.02.02	Size of Island: 11m x 18m	each	645,468.14	642,943.61	629,590.48	629,590.48	
4.05.06.02.03	Size of Island: 11m x 20m	each	697,336.12	694,608.72	680,182.57	680,182.57	
4.05.07	Making arrangement of barge of required size & capacity for construction of cast-in-site bored piles / pre-cast pile at pier locations in river/channel having water depth more than 3.0m. including mobilization and demobilization, setting of piling rigs, fuel, lubricants, other incidental charges etc. all complete as per direction of the engineer.						
4.05.07.01	Size: 26.0m x 8.5m, Loaded Draft: 1.8m/1.2m, Carrying capacity: 150 MT	each/mo nth	677,318.92	677,318.92	677,318.92	677,318.92	
4.05.07.02	Size: 30.0m x 9.0m, Loaded Draft: 1.8m/1.2m, Carrying capacity: 200 MT	each/mo nth	677,318.92	677,318.92	677,318.92	677,318.92	
4.05.07.03	Size: 38.0m x 9.0m, Loaded Draft: 2.0m/1.37m, Carrying capacity: 300 MT	each/mo nth	761,983.78	761,983.78	761,983.78	761,983.78	
4.05.07.04	Size: 36.5m x 12.0m, Loaded Draft: 2.4m/1.8m, Carrying capacity: 400 MT	each/mo nth	931,313.51	931,313.51	931,313.51	931,313.51	
4.05.07.05	Size: 38.0m x 13.5m, Loaded Draft: 2.4m/1.8m, Carrying capacity: 500 MT	each/mo nth	931,313.51	931,313.51	931,313.51	931,313.51	
4.05.08	Making arrangement of steel staging for construction of Cast-in-situ pile by driving of double headed El Rail post up to 4.00 m to 6m with 600/750mm dia Cl Shoe (screw) @ 1.00m c/c in transverse dimension and 4.00m c/c in longitudinal direction povided with double headed Cl cap and RS Joist of required size in both direction. The double headed El vertical post shall be cross-braced with 75mm x 75mm MS angle. The RS joist frame shall be covered with MS plate (6mm thick) to make a smooth platform. The work shall be completed including hiring charge of all material, fitting, fixing with nut bolt etc., all labour cost and maintaining the same till the completion of the work for which it is made. The structure is to be completely removed on completion of the work and the cost is inclusive of the element also. All work shall be done as per supplied drawing and direction of the E-I-C. Contractor shall take necessary safety measures for the stage and shall be responsible for any accident. Note: This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.						
4.05.08.01	For 5.00m to 9.00m depth of water	sqm	16,096.34	15,731.13	14,745.30	14,745.30	
4.05.08.02	For 9.00m to 12.00m depth of water	sqm	18,563.95	18,139.08	17,001.11	17,001.11	
4.05.08.03	For 12.00m to 15.00m depth of water	sqm	19,704.98	19,256.27	18,041.35	18,041.35	
4.05.08.04	For 15.00m to 18.00m depth of water	sqm	20,861.68	20,388.81	19,095.87	19,095.87	
4.05.08.05	For 18.00m & Above depth of water	sqm	22,058.16	21,560.34	20,186.57	20,186.57	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.05.09	Construction of steel cofferdam with bottom frame with a required number of hole, side frame with necessary nos. of bracings at different level and top platform with provision of adequate access, light and ventilation including cost of MS plate, MS angle, joists, fabrication, welding, grinding, shifting the cofferdam from bank to pier location, lowering of cofferdam to it's design level, bottom plugging of cofferdam by 30MPa Tremie Concrete (underwater concrete) through a tube usually 200 to 250mm pipe, dewater the interior area, breaking head of hardened cast-in-situ bored pile to the cut-off level and exposing pile reinforcement for embedment in pile cap, erection and removal of cofferdam by unifloat (pontoon), monitoring the behavior of the cofferdam and surrounding area, tower crane, generator, gas cutter set etc. all complete in all respect as per direction of Design Unit & concern Engineer-in-Charge. Contractor shall submit the design calculations and methodology which must be compatible with the weather conditions, waves, currents, construction equipment, construction method, internal permanent structures and ground condition. Contractor shall take necessary safety measure for the construction of cofferdam and responsible for all obligations. Note: Measurement will be based on the actual pile cap area. This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.						
4.05.09.01	For depth up to 5m from LWL	sqm	129,720.73	129,750.87	129,330.31	129,440.58	
4.05.09.02	For depth 5m to 6m from LWL	sqm	142,692.80	142,725.96		142,384.63	
4.05.09.03	For depth 6m to 7m from LWL	sqm	155,664.88	155,701.05	155,196.37	155,328.69	
4.05.09.04	For depth 7m to 8m from LWL	sqm	168,636.95	168,676.13	168,129.41	168,272.75	
4.05.09.05	For depth 8m to 9m from LWL	sqm	181,609.02	181,651.22	181,062.44	181,216.81	
4.05.09.06	For depth 9m to 10m from LWL	sqm	194,581.10	194,626.31	193,995.47	194,160.86	
4.05.09.07	For depth above 10m from LWL	sqm	207,553.17	207,601.39	206,928.50	207,104.92	
4.05.10	Making arrangement of dewatering system to provide temporary reductions in ground water level for construction of pile caps/ foundation of any other structure which extend to below ground water level including installation of a wellpoint system consists of a closely spaced series of small-diameter shallow wells connected to a common headermain and pumped with a high-efficiency vacuum dewatering pump or installation and operation of series of submersible pumps so as to lower the water table to provide stable and dry conditions to facilitate excavation. For drawdowns in excess of 6m further stages of wellpoints are required, installed at successively lower levels as excavation proceeds. Dewatering system may be used around open cut excavations or in conjunction with shoring or retaining wall used to support the excavation. The choise of pumping system used for dewatering or groundwater systems depends on the amount of drawdown required and the ground conditions. Contractor shall submit the design calculations and methodology which must be compatible with the sub-soil & weather condition, construction equipment, construction method, ground water level etc. Contractor shall take necessary safety measure for making arrangement of dewatering system and responsible for all obligations. Note: Measurement will be based on the actual pile cap/ foundation area. This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.						
4.05.10.01	Dewatering system for depth up to 3m	sqm	9,696.31	9,678.59	9,623.88	9,623.88	
4.05.10.02	Dewatering system for depth 3m to 6m	sqm	30,197.73	30,160.80	30,051.55	30,051.55	
4.05.10.03	Dewatering system for depth 6m to 9m	sqm	75,051.98	74,976.44		74,758.97	
4.05.10.04	Dewatering system for depth above 9m	sqm	93,814.98	93,720.55	93,448.71	93,448.71	

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1	2	3	4	5	6	7
4.05.11	SPW: Shore protection work during excavation in foundation trenches & construction of the same to protect loose soil by driving U-type hot rolled steed sheet pile of 600mm width, thickness 7.5mm, and using bracing type I-joist of nominal size 200x150 mm, sectional dimension 6mm in horizontal, long and short direction etc. all complete including maintennace upto completion of the work or as per direction of E-I-C (Taking out of sheet pile and removing of shore protection work to clean after completion of foundation work e.g. pile cap) Note: Measurement will be based on the actual pile cap area. This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.					
4.05.11.01	SPW_3+: depth from 3 m to 4 m from LWL	sqm	30,348.75	30,196.52	29,596.60	29,596.60
4.05.11.02	SPW_4+: depth from 4 m to 5 m from LWL	sqm	33,735.03	·	32,889.64	32,889.64
Section-06:	Sand Filling, Brick Soling, Plain Cement Concrete	, Brick	Work & Plas	ter		
4.06.01	Sand filling on the prepared foundation bed with sand of specified FM in layers not more than 150mm thick including necessary carriage, leveling, watering and ramming to achieve minimum dry density (MDD) of 95% STD compaction with optimum moisture content (OMC) by ramming each layer up to finished level as per direction of E-I-C.					
4.06.01.01	Sand of Minimum FM 0.8	cum	1,071.19	1,071.93	1,021.87	1,021.87
4.06.01.02	Sand of Minimum FM 1.2	cum	1,190.46	1,194.14	1,144.08	1,144.08
4.06.01.03	Sand of Minimum FM 1.8	cum	2,176.99	2,201.29	2,149.75	2,149.75
4.06.01.04	Sand of Minimum FM 2.5	cum	3,000.08	2,902.16	2,924.25	2,893.33
4.06.02	Single layer brick flat soling with 1st class or picked kiln burnt bricks in foundation, filling the interstices tightly with sand of minimum FM 0.50, watering, leveling, dressing, etc. all complete as per instruction of the E-I-C.	sqm	591.40	590.26	564.71	564.71
4.06.03	PCC-10: Plain cement concrete work in foundation with minimum compressive strength of 10 MPa at 28 days (sugessted mix proportion 1:3:6) on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded 1st class/ picked brick chips (LAA value not exceeding 40) comforming to ASTM C 33 including breaking bricks into chips, shuttering, mixing by concrete mixer machine, casting, laying compacting and curing for the requisite period etc. all complete as per direction of the E-I-C. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost.	cum	10,561.05	10,522.94	10,163.41	10,163.41
4.06.04	PCC-17: Plain cement concrete work in foundation with minimum compressive strength of 17 MPa at 28 days (sugessted mix proportion 1:2:4 & maximum w/c ratio 0.45) on standard cylinder as per standard practice of Code AASHTO/ ASTM/ and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded 1st class/ picked brick chips (LAA value not exceeding 40) comforming to ASTM C 33 including breaking bricks into chips, shuttering, mixing by concrete mixer machine, casting, laying compacting and curing for the requisite period etc. all complete as per direction of the E-I-C. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost.	cum	11,489.78	11,451.53	11,101.30	11,101.30
4.06.05	Brick work with 1st class brick in specified cement mortar in foundation with sand of minimum FM 1.20 and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N, filling the interstices tightly with mortar, raking out joints, cleaning and soaking bricks at least for 24 hours before use, washing of sand, curing at least for 7 days etc. all complete as per design, specification & direction of the E-I-C.					
4.06.05.01	Cement mortar (1:3)	cum	10,465.39	10,438.15	10,056.98	10,056.98

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.06.05.02	Cement mortar (1:4)	cum	9,939.29	9,911.68	9,532.28	9,532.28	
4.06.05.03	Cement mortar (1:6)	cum	9,461.06	9,433.35	9,054.47	9,054.47	
4.06.06	Minimum 6mm thick cement plaster including neat cement finishing over concrete faces with sand of minimum FM 1.20 and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N including washing of sand, cleaning junctiongs of concrete, grouting, dabbing, doing independent double-legged scaffolding, finishing the edges and corners, cleaning of surfaces and curing for requisite period etc. all complete at all leads & lifts as per drawings, specification & direction of the E-I-C.		005.00	200.04	070 50	070.50	
4.06.06.01	Cement mortar (1:3)	sqm	295.32	293.34	276.59	276.59	
4.06.06.02	Cement mortar (1:4)	sqm	282.79	280.80	264.09	264.09	
Section-07:	Pile Work & Pile Test						
4.07.01	BCIS: Boring for cast-in-situ piles up to the required depth and specified diameter with driving temporary steel casing (shall be 8mm thick with necessary stiffener bands and sharp edge at bottom and provided up to non-collapsible strata from the existing ground level but not less then 4.0 m) in all types of soils including min. 2-chamber slurry tank, drilling with bentonite circulation (Dry Bentonite powder of liquid limit of minimum 350 shall be mixed with water @ minimum 4% by weight to make the fresh drilling fluid of viscosity between 32-50 seconds and density less than 1.1gm/cc), maintaining fluid level inside casing at all time at least 2 m higher than outside the casings, washing bore hole by air lift cleanup method with fresh bentonite slurry until the slurry from bore hole bottom have density less than 1.15gm/cc and sand content is less than 4%, make the bore hole ready for concreting including disposal/removal of all bored material, hire charge of mechanical winch machine/ skid mounted mechanical table drive rotary/ hydraulic rotary boring equipment, derrick, trimie pipe, cost of fuel, lubricant, mobilization, demobilization, spares, insurance coverage, water, electricity and other charges all complete as per design, drawing, specification and direction of E-I-C. Contractor shall submit the methodology of cast-in-situ pile work including information on boring equipment, sequence of boring & casting, quality control, disposal of spoils, test result of materials to the E-I-C for approval before commencing any boring operation. Boring and excavation for a pile shall not commence until 24 hours after completion of any pile within radius of 6 meters c/c. Cost of collecting, conveying, loading, transportation of spoils/mud accumulated during boring of cast-in-situ pile with all lifts and lead is included in this unit rate. The spoils must be dumped in an unobjectionable place outside the site premises with minimum traffic disruption and the procuring entity will not be responsible for any irregularities by	m					
4.07.01.01	BCIS_PM: Boring by PERCUSSION METHOD using Direct Mud Circulation (DMC) or Bailer and Chisel technique by tripod and mechanical winch machine. Tubewell boring machine shall not be used.						
4.07.01.01.01	450mm diameter	m	1,630.33	1,622.23	1,596.58	1,596.58	
4.07.01.01.02	500mm diameter	m	1,992.63	1,980.82	1,942.01	1,942.01	
4.07.01.01.03	600mm diameter	m	2,340.62	2,327.80	2,286.63	2,286.63	
4.07.01.01.04	700mm diameter	m	2,696.44	2,682.95	2,639.92	2,639.92	
4.07.01.01.05	800mm diameter	m	2,970.88	2,957.38	2,914.19	2,914.19	
4.07.01.02	BCIS_SMMTD: Boring by Skid Mounted Mechanical Table Drive Rotary Boring/ Spindle Type Rotary Drilling Machine. Tube well boring machine/ Bailer and chisel technique by tripod and mechanical winch machine shall not be used.						
4.07.01.02.01	600mm diameter	m	2,557.18	2,553.47	2,541.53	2,541.53	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.01.02.02	700mm diameter	m	3,093.57	3,089.25	3,075.33	3,075.33	
4.07.01.02.03	800mm diameter	m	3,657.27	3,652.32	3,636.39	3,636.39	
4.07.01.02.04	900mm diameter	m	4,602.31	4,595.83	4,575.18	4,575.18	
4.07.01.02.05	1000mm diameter	m	6,020.94	6,012.17	5,984.43	5,984.43	
4.07.01.02.06	1200mm diameter	m	7,337.35	7,326.10	7,291.00	7,291.00	
4.07.01.02.07	1500mm diameter	m	9,338.94	9,325.44	9,284.57	9,284.57	
4.07.01.03	BCIS_HRM: Boring by HYDRAULIC ROTARY METHOD using Crawler mounted, telescopic boom hydraulic piling rig. Tube well boring machine/ Bailer and chisel technique by tripod and mechanical winch machine/ Skid Mounted Mechanical Table Drive Rotary Boring/ Spindle Type Rotary Drilling Machine shall not be used.						
4.07.01.03.01	600mm diameter	m	3,545.73	3,542.01	3,530.07	3,530.07	
4.07.01.03.02	800mm diameter	m	4,728.82	4,723.87	4,707.95	4,707.95	
4.07.01.03.03	900mm diameter	m	5,878.07	5,871.59	5,850.94	5,850.94	
4.07.01.03.04	1000mm diameter	m	7,604.17	7,595.40	7,567.66	7,567.66	
4.07.01.03.05	1200mm diameter	m	9,044.49	9,033.24	8,998.14	8,998.14	
4.07.01.03.06	1500mm diameter	m	11,303.07	11,289.57	11,248.70	11,248.70	
4.07.01.03.07	1800mm diameter	m	13,784.99	13,768.49	13,719.15	13,719.15	
4.07.01.03.08	2000mm diameter	m	15,182.35	15,162.85	15,105.11	15,105.11	
4.07.01.03.09	2500mm diameter	m	17,181.61	17,159.12	17,092.75	17,092.75	
4.07.02	DCIS: Driven Cast-in-Situ vertical R.C.C. pile of specified diameter and length (length to be measured from the bottom of pile cap to the bottom of shoe), to carry safe working load not less than specified, including cost shoe & all other materials and labour for casting, hoisting, driving etc. and also including cost of dummy lengths of pile and of hire charges of all instruments as necessary but excluding concrete & reinforcement etc. all complete as per drawing, specification and direction of Engineer-in-Charge.						
4.07.02.01	Pile diameter - 450 mm	m	5,126.43	5,123.97	5,120.05	5,120.05	
4.07.02.02	Pile diameter - 500 mm	m	5,649.14	5,646.69	5,642.76	5,642.76	
4.07.02.03	Pile diameter - 600 mm	m	6,171.85	6,169.40	6,165.47	6,165.47	
4.07.02.04	Pile diameter - 700 mm	m	9,525.22	9,519.51	9,510.38	9,510.38	
4.07.02.05	Pile diameter - 800 mm	m	10,687.28	10,679.92	10,668.08	10,668.08	
4.07.02.06	Pile diameter - 900 mm	m	11,748.29	11,740.44	11,727.80	11,727.80	
4.07.02.07	Pile diameter - 1000 mm	m	13,891.73	13,881.91	13,866.20	13,866.20	
4.07.02.08	Pile diameter - 1200 mm	m	15,208.93	15,196.66	15,177.03	15,177.03	
4.07.02.09	Pile diameter - 1500 mm	m	17,364.82	17,351.17	17,329.36	17,329.36	

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1	2	3	4	5	6	7	
4.07.03	RCC-25SCCM: Reinforced cement concrete work for cast-in-situ pile with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average compressive strength, fcr = 33.5 MPa and satisfying a compressive strength fc = 25 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/VW 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking chips, screening through proper sieves, placing & maintaining re-bar cage in position, jointing longitudinal bars by welding or re-bar coupling method, placing and removing tripod/derrick as per requirement, mixing in standard mixture machine with hoper, maintaining allowable slump of 150mm to 200mm, placing a sliding plug or barrier to prevent direct contact between the first charge of concrete in the pipe of the tremie and the water of drilling fluid, pouring the concrete in bore hole with the help of trimie pipe, maintaining the trimie pipe immersed in concrete by at least 1.5m throughout the period of concreting etc. including cost of all materials, labour, equipment and all incidental charges but excluding the cost of reinforcement and its fabrication, welding, coupling and placing etc. all complete as per design, drawing, specifications and direction of the E-I-C. The contractor shall maintain a continuous record of the volume of concrete used and the level of the concrete in the pipe. Any deviations from the theoretical, or expected, volume/level relationship shall be immediately reported to the E-I-C. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. [Using Concrete	cum	16,462.95	16,536.40	15,511.52	15,780.23	
4.07.04	RCC-25SCBP: Reinforced cement concrete work for cast-in-situ pile with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average compressive strength, fcr = 33.5 MPa and satisfying a compressive strength fc = 25 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A, F or G under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking chips, screening through proper sieves, placing & maintaining re-bar cage in position, jointing longitudinal bars by welding or re-bar coupling method, placing and removing tripod/derrick as per requirement, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 150mm to 200mm, placing a sliding plug or barrier to prevent direct contact between the first charge of concrete in the pipe of the tremie and the water of drilling fluid, pouring the concrete in bore hole with the help of trimie pipe, maintaining the trimie pipe immersed in concrete by at least 1.5m throughout the period of concreting etc. including cost of all materials, labour, equipment and all incidental charges but excluding the cost of reinforcement and its fabrication, welding, coupling and placing etc. all complete as per design, drawing, specifications and direction of the E-I-C. The contractor shall maintain a continuous record of the volume of concrete used and the level of the concrete in the pipe. Any deviations from the theoretical, or expected, volume/ level relationship shall be immediately reported to the E-I-C. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contrac	cum	16,559.15	16,632.60	15,607.72	15,876.43	

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1	2	3	4	5	6	7	
4.07.06	RCC-30SCBP: Reinforced cement concrete work for cast-in-situ pile with minimum cement content and maximum water cement ratio as specified by the laboratory having minimum required average compressive strength, for = 38.5 MPa and satisfying a specified compressive strength, fc = 30 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type A, F or G under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33 including breaking chips, screening through proper sieves, placing & maintaining re-bar cage in position, placing and removing tripod/ derrick as per requirement, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 150mm to 200mm, placing a sliding plug or barrier to prevent direct contact between the first charge of concrete in the pipe of the tremie and the water of drilling fluid, pouring the concrete in bore hole with the help of trimie pipe, maintaining the trimie pipe immersed in concrete by at least 1.5m throughout the period of concreting etc. including cost of all materials, labour, equipment and all incidental charges but excluding the cost of reinforcement and its fabrication, welding, coupling and placing etc. all complete as per design, drawing, specifications and direction of the E-I-C. The contractor shall maintain a continuous record of the volume of concrete used and the level of the concrete in the pipe. Any deviations from the theoretical, or expected volume/level relationship shall be immediately reported to the E-I-C. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. The Mix Design shall have to b	cum	17,430.89	17,504.34	16,479.46	16,748.17	
4.07.06	Permanent Casing: Supplying, fabricating and placing in position permanent Steel casing conforming to ASTM A 36/ AASHTO M 183 for RCC bored cast-in-situ piles of specified diameters (internal) to a depth as shown in approved construction drawings including lowering & pitching the fabricated casing in position, driving the casing below bed level through all types of soil/clay/boulders/weathered or fissured or hard rock, fixing the casing in position with necessary lateral bracings (if required) etc. for stability until completion of all deck works, gas cutting, bending, welding at fabrication shop & site, painting with Red Oxide paint, transporting from fabrication shop to site, unloading at site, driving of casing, all sorts of labour, materials, tools, equipment, fuel, taxes etc. all complete as per design, drawing, specification & direction of Engineer-in-charge. Only length of steel casing driven as per drawing will be paid, wastage shall not be paid. All longitudinal and transverse welds shall be made with full penetration butt welds and adjacent segments shall be rotated 90 degree relative to each other so that longitudinal welds on the fabricated casing are staggered. The outside surface of the permanent casing shall receive two coats of anti-corrosion tar type paint which shall be approved by the Engineer-in-charge and it's application shall follow the manufacturer's instructions. If the handling, transportation, driving arrangement require a greater thickness to avoid deformation or buckling of casing, the increase in thickness shall be provided by the contractor at his own expense.						
4.07.06.01	400mm diameter and 6mm thick wall	m	7,459.03	7,458.36	7,455.66	7,455.66	
4.07.06.02	500mm diameter and 6mm thick wall	m	9,928.81	9,928.11	9,925.28	9,925.28	
4.07.06.03	600mm diameter and 6mm thick wall	m	11,907.69	11,906.90	11,903.74	11,903.74	
4.07.06.04	700mm diameter and 6mm thick wall	m	13,826.76	13,825.97	13,822.81	13,822.81	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.06.05	800mm diameter and 8mm thick wall	m	20,951.94	20,951.10	20,947.71	20,947.71	
4.07.06.06	900mm diameter and 8mm thick wall	m	23,506.00	23,505.15	23,501.77	23,501.77	
4.07.06.07	1000mm diameter and 10mm thick wall	m	32,550.25	32,549.35	32,545.74	32,545.74	
4.07.06.08	1200mm diameter and 10mm thick wall	m	37,274.34	37,273.42	37,269.75	37,269.75	
4.07.06.09	1500mm diameter and 12mm thick wall	m	54,471.13	54,470.18	54,466.38	54,466.38	
4.07.06.10	1800mm diameter and 12mm thick wall	m	65,296.01	65,294.90	65,290.47	65,290.47	
4.07.06.11	2000mm diameter and 16mm thick wall	m	96,645.38	96,644.11	96,639.04	96,639.04	
4.07.06.12	2500mm diameter and 20mm thick wall	m	150,774.80	150,773.38	150,767.68	150,767.68	
4.07.06.13	Any other diameter and thickness not mentioned in the specified rate chart. Measurement will be based on the weight of the steel casing. Hire Charge of Tripod, Mechanical Winch Machine, Derrick, Welding machine, and other nececcery manpower is included in this unit rate.	MT	121,795.76	121,794.60	121,790.00	121,790.00	
4.07.07	Welding: Providing and making specified welding conforming to AWS D1.4 by electric arc welding for construction of cast-in-situ bored pile carefully with highly oxidized electrodes making the points prominent and accepted by the Engineer-in-charge. The cost of all materials, labour, tools and plants, electricity and all equipment is included in this unit rate. Welding shall be carried out under the continuous direction of an experienced and competent superisor.						
4.07.07.01	SW: spot/tack welding at contact point of the spirals at reasonalbe intervals with the main vertical reinforcements of re-bar cage to be placed in borehole.	each	4.00	3.97	3.82	3.82	
4.07.07.02	LW: Direct type Lap-welded splice over two sides of contact by welding of minimum length not less than 10 times of bar diameter unless otherwise mentioned in the working drawing at the lap of main reinforcement in re-bar cage to be placed in borehole.	m	483.00	483.00	474.22	474.22	
4.07.08	Labour for breaking head of hardened cast-in-situ bored pile/ precast piles to the correct lines and levels from the top of the piles to the cut-off level as indicated in the approved drawing and exposing pile reinforcement for embedment in pile cap by any means and disposal of the debris to an unobjectionable place outside the site premises including scrapping and removing concrete from steel/ MS rods, straightening and bending of pile bars, preparation and making of platform where necessary, carrying, all sorts of handling, stacking the same properly after clearing, leveling and dressing the site and clearing the river bed, etc. all complete as per direction of the E-I-C. Measurement will be given for the actual pile head volume to be broken. The debris from pile chipping shall be disposed outside the site premises at an environmentally safe place with minimum traffic disruption and procuring entity will not be responsilbe for any irregularities by the party regarding dumping of the debris. [PWD 09.7)	cum	3,595.00	3,518.00	3,274.00	3,274.00	

Item Code	Brief Description of Item	Unit	t Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.09	RCC-17BCCM: Reinforced cement concrete work for pre-cast pile with minimum cement content relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.4 having minimum required average strength, f'cr = 24 MPa and satisfying a compressive strength f'c = 17 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/MIV/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 50mm to 100mm, casting, compacting by mechanical vibrators and tapered rods as where necessary, curing for 28 days etc. The cost of reinforcement and it's fabrication, binding, welding and placing is not included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. [Using Concrete Mixture Machine and retail rate of Cement]	cum	12,680.29	12,635.90	12,242.17	12,242.17	
4.07.10	RCC-25SCCM: Reinforced cement concrete work for pre-cast pile with cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average compressive strength, fcr = 33.5 MPa and satisfying a compressive strength fc = 25 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 50mm to 100mm, casting, compacting by mechanical vibrators and tapered rods as where necessary, curing for 28 days etc. The cost of reinforcement and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. [Using Concrete Mixture Machine and retail rate of Cement]	cum	18,047.02	18,128.36	16,913.47	17,227.85	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.11	RCC-25SCBP: Reinforced cement concrete work for pre-cast pile with cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average compressive strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/W/W 42.5N, water reducing admixture of complying type A under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 50mm to 100mm, casting, compacting by mechanical vibrators and tapered rods as where necessary, curing for 28 days etc. The cost of reinforcement and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	18,405.93	18,495.88	17,297.50	17,611.88	
4.07.12	RCC-30SCBP: Reinforced cement concrete work for pre-cast pile with minimum cement content and maximum water cement ratio as specified by the laboratory having minimum required average compressive strength, fcr = 38.5 MPa and satisfying a specified compressive strength, fcr = 30 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-I 52.5N / ASTM C150 Type-1, water reducing admixture of complying type A under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 50mm to 100mm, casting, compacting by mechanical vibrators and tapered rods as where necessary, curing for 28 days etc. The cost of reinforcement and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	19,339.62	19,429.57	18,231.19	18,545.58	
4.07.13	Mobilization and demobilization of drop hammer type pre-cast pile driving rig set.	set/site	10,307.03	10,307.03	10,307.03	10,307.03	
4.07.14	Driving pre-cast RCC piles with drop hammer type rig in any type of soil to the required depth including fitting and fixing steel cap, handling and keeping in position and maintaining driving log in prescribed format as per design, drawing & direction of the E-I-C. Before commencing driving operation, contractor shall submit the methodology for carrying the driving operation including sequence of driving to the E-I-C. The maximum permitted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the planned depth is exclusively subject to the approval of Design Unit, LGED.						

4.07.14.03 X-section of pre-cast pie: 300mm X 300mm and 350mm X 350mm m 817.00 809.00 778.00 778.00 778.00 407.15 Mobilization and demobilization of automatic dissel harmer mounted compare rig set. 4.07.16 In the process (Fig. 1) (1997) (1	Item Code	Brief Description of Item	Unit	Rate				
4.07.14.01 X-section of pre-cast pite: 225mm X 225mm (PVD 0.915) m 414.94 410.36 393.47 393.47 407.14.02 X-section of pre-cast pite: 225mm X 225mm (PVD 0.915) m 514.00 508.00 489.00 489.00 407.14.03 X-section of pre-cast pite: 300mm X 300mm and 350mm X 350mm m 617.00 809.00 778.00 778.00 PVD 0.916] moderate of the cast pite: 300mm X 300mm and 350mm X 350mm m 617.00 809.00 778.00 778.00 PVD 0.916] moderate of the cast pite: 300mm X 300mm and 350mm X 350mm m 617.00 809.00 778.00 778.00 PVD 0.916] moderate of the cast pite: 300mm X 300mm and 350mm X 350mm m 617.00 809.00 778.00 778.00 PVD 0.916] moderate of the cast pite: 300mm X 300mm and 350mm X 350mm m 781.84 768.85 768.19 809.00 909.00 800.00 PVD 0.9100 PVD 0.9100 PVD 0.9100 PVD 0.925.22 PV		2		Dhaka & Mymensingh	Chattogram & Sylhet	Rajshahi & Rangpur	Khulna & Barishal	
4.07.14.02 X-section of pre-cast pile 250mm X 250mm (PWD 09.15) m 514.00 508.00 489.00 489.00 4.07.14.03 X-section of pre-cast pile 250mm X 250mm and 350mm X 350mm m 817.00 809.00 778.00 778.00 4.07.15 Mobilization and denobilization of automatic dissel harmor per site 164.00.497 184.004.97 <t< td=""><td></td><td></td><td>3</td><td></td><td></td><td></td><td></td></t<>			3					
### 407.14.03 X-section of pre-cast pile: 300mm X 300mm and 350mm X 350mm m 817.00 809.00 778.00 778.00 778.00 778.00 407.15 Mobilization and demobilization of automatic desel harmer mounted compete rig set. ### 407.16 International Competer of the Competer of th		· · ·	m					
4.07.15	4.07.14.02	X-section of pre-cast pile: 250mm X 250mm [PWD 09.15)	m	514.00	508.00	489.00	489.00	
### ### ##############################	4.07.14.03		m	817.00			778.00	
ing in any type of soil to the required depth including titting and fixing stell cap, Inandring, and keeping in postion and maintaining fixing judge and the cap, Inandring and keeping in postion and maintaining friving glore (i.e., contractor shall submit the methodology for carrying the driving operation including sequence of driving to the CI-C. The maximum permitted deviation of the fished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the alpinanted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm m m m for 7.32 (60.33) 595.15 (595.15 (60.33) 4.07.16.02 (60.33) 4.07.16.02 (60.33) 4.07.16.02 (60.33) 4.07.16.03 (70.33) 4.07.16.03 (70.33) 4.07.16.03 (70.33) 4.07.16.03 (70.33) 4.07.16.03 (70.33) 4.07.16.03 (70.33) 4.07.16.03 (70.33) 4.07.16.03 (70.33) 4.07.16.03 (70.33) 4.07.16.04 (70.34) 4.07.16.04 (70.34) 4.07.16.04 (70.34) 4.07.16.05 (70.34) 4.07.17.05 (70.34) 4.07.17	4.07.15		per site	184,004.97	184,004.97	184,004.97	184,004.97	
4.07.16.02 X-section of pre-cast pile: 250 mm X 250 mm m 781.84 776.68 766.19 766.19	4.07.16	rig in any type of soil to the required depth including fitting and fixing steel cap, handling and keeping in position and maintaining driving log in prescribed format as per design, drawing & direction of the E-I-C. Before commencing driving operation, contractor shall submit the methodology for carrying the driving operation including sequence of driving to the E-I-C. The maximum permitted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the planned depth						
407.16.03 X-section of pre-cast pile: 300 mm X 300 mm m 1,022.52 1,015.78 1,002.06 1,002.06 4,071.6.04 X-section of pre-cast pile: 350 mm X 350 mm m 1,093.83 1,086.62 1,071.93 1,071.93 1,071.93 4,071.6.05 X-section of pre-cast pile: 400 mm X 400 mm m 1,214.54 1,206.52 1,190.21 1,190.21 4,071.6.06 X-section of pre-cast pile: 450 mm X 450 mm m 1,301.89 1,293.30 1,275.81 1,275.81 4,071.71 Mobilization and demobilization of Hydraulic Static Pile driver (HSPD) including complete as cessories 4,071.71 Maximum pile driving force up to 120 to 180 ton set/site 188,103.24 188,103.24 188,103.24 4,071.70 Maximum pile driving force 120 to 180 ton set/site 299,638.38 239,638.38	4.07.16.01	X-section of pre-cast pile: 225 mm X 225 mm	m	607.32	603.31	595.15	595.15	
4.07.16.04 X-section of pre-cast pile: 350 mm X 350 mm m 1.093.83 1.086.62 1.071.93 1.071.93 4.07.16.05 X-section of pre-cast pile: 400 mm X 400 mm m 1.214.54 1.206.52 1.190.21 1.190.21 4.07.16.06 X-section of pre-cast pile: 450 mm X 450 mm m 1.214.54 1.206.52 1.190.21 1.190.21 4.07.17 Mobilization and demobilization of Hydraulic Static Pile driver (HSPD) including complete accessories 4.07.17 Maximum pile driving force up to 120 ton set/site 188,103.24 188,103.24 188,103.24 188,103.24 4.07.17.02 Maximum pile driving force 120 to 180 ton set/site 239,638.38 239,638.38 239,638.38 239,638.38 4.07.17.03 Maximum pile driving force 180 to 260 ton set/site 291,173.51 291,173.51 291,173.51 291,173.51 4.07.17.04 Maximum pile driving force 260 to 360 ton set/site 368,476.22 36	4.07.16.02	X-section of pre-cast pile: 250 mm X 250 mm	m	781.84	776.68	766.19	766.19	
4.07.16.05 X-section of pre-cast pile: 400 mm X 400 mm m 1.214.54 1.206.52 1,190.21 1.190.21 4.07.16.06 X-section of pre-cast pile: 450 mm X 450 mm m 1,301.89 1,293.30 1,275.81 1,275.81 4.07.17 Mobilization and demobilization of Hydraulic Static Pile driver (HSPD) including complete accessories m 1,301.89 1,293.30 1,275.81 1,275.81 4.07.17.01 Maximum pile driving force up to 120 ton set/site 188,103.24	4.07.16.03	X-section of pre-cast pile: 300 mm X 300 mm	m	1,022.52	1,015.78	1,002.06	1,002.06	
4.07.16.06 X-section of pre-cast pile: 450 mm X 450 mm m 1,301.89 1,293.30 1,275.81 1,275.81 4.07.17 Mobilization and demobilization of Hydraulic Static Pile driver (HSPD) including complete accessories m 1,301.89 1,293.30 1,275.81 1,275.81 4.07.17.01 Maximum pile driving force up to 120 ton set/site 188,103.24 188,103.24 188,103.24 188,103.24 4.07.17.02 Maximum pile driving force 120 to 180 ton set/site 239,638.38 23	4.07.16.04	X-section of pre-cast pile: 350 mm X 350 mm	m	1,093.83	1,086.62	1,071.93	1,071.93	
4.07.17 Mobilization and demobilization of Hydraulic Static Pile driver (HSPD) including complete accessories 4.07.17.01 Maximum pile driving force up to 120 ton set/site 188,103.24 188,103.24 188,103.24 4.07.17.02 Maximum pile driving force 120 to 180 ton set/site 239,638.38 239,638.38 239,638.38 4.07.17.03 Maximum pile driving force 180 to 260 ton set/site 291,173.51 291,173.51 291,173.51 4.07.17.04 Maximum pile driving force 260 to 360 ton set/site 368,476.22 368,476.22 368,476.22 368,476.22 4.07.17.05 Maximum pile driving force above 360 ton set/site 420,011.35 420,011.35 420,011.35 4.07.18 Driving pre-cast RCC piles of various sizes (300 mm x 300 mm to 600 mm x 600 mm) in any type of soil using Hydraulic Static pile driver having free of any noise and vibration during driving including handling and installation of pile keeping in position as shown in the drawing, all labours, operators, tools, all equipment charges, power source, piles spilicing, site arrangement, keeping all measures to avoid any disturbance to the adjacent structure, keeping driving record & pile capacity Record etc. all complete as per design, drawing, specification & direction of the E-I-C, and finally submission of pile driving report in 3(three) copies duly signed by professional engineer. The maximum permitted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the planned depth is exclusively subject to the approval of E-I-C. 4.07.18.01 X-section of pre-cast pile: 400 mm X 400 mm [PWD 9.25.2.2] m 997.00 996.00 993.00 993.00 4.07.18.03 X-section of pre-cast pile: 450 mm X 450 mm [PWD 9.25.2.3] & m 1,043.00 1,041.90 1,038.87 4.07.19 Supplying and driving vertical Steel piles of required shape and length including cost of all materials and labour for hoising, driving etc. and also including cost of all materials and babour for hoising, driving etc. and also including cos	4.07.16.05	X-section of pre-cast pile: 400 mm X 400 mm	m	1,214.54	1,206.52	1,190.21	1,190.21	
(HSPD) including complete accessories	4.07.16.06	X-section of pre-cast pile: 450 mm X 450 mm	m	1,301.89	1,293.30	1,275.81	1,275.81	
4.07.17.02 Maximum pile driving force 120 to 180 ton set/site 239,638.38 239,173.51 291,17	4.07.17							
4.07.17.03 Maximum pile driving force 180 to 260 ton set/site 291,173.51 420,011.35 420,011.35 420,011.35 420,011.35 420,011.35 420,011.35 420,011.35 420,011.35 420,011.35 420,01	4.07.17.01	, , ,	set/site	188,103.24	188,103.24	188,103.24	188,103.24	
4.07.17.04 Maximum pile driving force 260 to 360 ton set/site 368,476.22 368,	4.07.17.02	Maximum pile driving force 120 to 180 ton	set/site	239,638.38	239,638.38	239,638.38	239,638.38	
4.07.17.05 Maximum pile driving force above 360 ton set/site 420,011.35 420,011.35 420,011.35 4.07.18.01 Driving pre-cast RCC piles of various sizes (300 mm x 300 mm to 600 mm x 600 mm) in any type of soil using Hydraulic Static pile driver having free of any noise and vibration during driving including handling and installation of pile keeping in position as shown in the drawing, all labours, operators, tools, all equipment charges, power source, piles splicing, site arrangement, keeping all measures to avoid any disturbance to the adjacent structure, keeping driving record & pile capacity Record etc. all complete as per design, drawing, specification & direction of the E-I-C and finally submission of pile driving report in 3(three) copies duly signed by professional engineer. The maximum permitted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the planned depth is exclusively subject to the approval of E-I-C. 4.07.18.01 X-section of pre-cast pile: 300 mm X 300 mm & 350 mm X 350 mm m 886.00 885.00 883.00 883.00 4.07.18.01 X-section of pre-cast pile: 400 mm X 400 mm [PWD 9.25.2.2] m 997.00 996.00 993.00 993.00 4.07.18.03 X-section of pre-cast pile: 450 mm X 450 mm [PWD 9.25.2.3] & m 1,043.00 1,041.90 1,038.87 1,038.87 Above 4.07.19 Supplying and driving vertical Steel piles of required shape and length including cost of all materials and labour for hoisting, driving etc. and also including cost of ummy lengths of pile and of hire charges of all instruments as necessary complete as per drawing, technical Specifications and direction of E-I-C.	4.07.17.03	Maximum pile driving force 180 to 260 ton	set/site	291,173.51	291,173.51	291,173.51	291,173.51	
4.07.18 Driving pre-cast RCC piles of various sizes (300 mm x 300 mm to 600 mm x 600 mm) in any type of soil using Hydraulic Static pile driver having free of any noise and vibration during driving including handling and installation of pile keeping in position as shown in the drawing, all labours, operators, tools, all equipment charges, power source, piles splicing, site arrangement, keeping all measures to avoid any disturbance to the adjacent structure, keeping driving record & pile capacity Record etc. all complete as per design, drawing, specification & direction of the E-I-C and finally submission of pile driving report in 3(three) copies duly signed by professional engineer. The maximum permitted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the planned depth is exclusively subject to the approval of E-I-C. 4.07.18.01 X-section of pre-cast pile: 300 mm X 300 mm & 350 mm X 350 mm m 886.00 885.00 883.00 883.00 883.00 80	4.07.17.04	Maximum pile driving force 260 to 360 ton	set/site	368,476.22	368,476.22	368,476.22	368,476.22	
600 mm x 600 mm) in any type of soil using Hydraulic Static pile driver having free of any noise and vibration during driving including handling and installation of pile keeping in position as shown in the drawing, all labours, operators, tools, all equipment charges, power source, piles splicing, site arrangement, keeping all measures to avoid any disturbance to the adjacent structure, keeping driving record & pile capacity Record etc. all complete as per design, drawing, specification & direction of the E-I-C and finally submission of pile driving report in 3(three) copies duly signed by professional engineer. The maximum permitted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the planned depth is exclusively subject to the approval of E-I-C. 4.07.18.01 X-section of pre-cast pile: 300 mm X 300 mm & 350 mm X 350 mm m 886.00 885.00 883	4.07.17.05	Maximum pile driving force above 360 ton	set/site	420,011.35	420,011.35	420,011.35	420,011.35	
[PWD 9.25.2.1] 4.07.18.02 X-section of pre-cast pile: 400 mm X 400 mm [PWD 9.25.2.2] m 997.00 996.00 993.00 993.00 4.07.18.03 X-section of pre-cast pile: 450 mm X 450 mm [PWD 9.25.2.3] & m 1,043.00 1,041.90 1,038.87 Above 4.07.19 Supplying and driving vertical Steel piles of required shape and length including cost of all materials and labour for hoisting, driving etc. and also including cost of dummy lengths of pile and of hire charges of all instruments as necessary complete as per drawing, technical Specifications and direction of E-I-C. 4.07.19.01 Steel H-Piles of 400mm x 250mm conforming to requirements of m 8,933.82 8,932.75 8,931.05 8,931.05	4.07.18	600 mm x 600 mm) in any type of soil using Hydraulic Static pile driver having free of any noise and vibration during driving including handling and installation of pile keeping in position as shown in the drawing, all labours, operators, tools, all equipment charges, power source, piles splicing, site arrangement, keeping all measures to avoid any disturbance to the adjacent structure, keeping driving record & pile capacity Record etc. all complete as per design, drawing, specification & direction of the E-I-C and finally submission of pile driving report in 3(three) copies duly signed by professional engineer. The maximum permitted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the planned depth is exclusively						
4.07.18.03 X-section of pre-cast pile: 450 mm X 450 mm [PWD 9.25.2.3] & m 1,043.00 1,041.90 1,038.87 Above 4.07.19 Supplying and driving vertical Steel piles of required shape and length including cost of all materials and labour for hoisting, driving etc. and also including cost of dummy lengths of pile and of hire charges of all instruments as necessary complete as per drawing, technical Specifications and direction of E-I-C. 4.07.19.01 Steel H-Piles of 400mm x 250mm conforming to requirements of m 8,933.82 8,932.75 8,931.05 8,931.05	4.07.18.01		m	886.00	885.00	883.00	883.00	
Above 4.07.19 Supplying and driving vertical Steel piles of required shape and length including cost of all materials and labour for hoisting, driving etc. and also including cost of dummy lengths of pile and of hire charges of all instruments as necessary complete as per drawing, technical Specifications and direction of E-I-C. 4.07.19.01 Steel H-Piles of 400mm x 250mm conforming to requirements of m 8,933.82 8,932.75 8,931.05 8,931.05	4.07.18.02	X-section of pre-cast pile: 400 mm X 400 mm [PWD 9.25.2.2]	m	997.00	996.00	993.00	993.00	
length including cost of all materials and labour for hoisting, driving etc. and also including cost of dummy lengths of pile and of hire charges of all instruments as necessary complete as per drawing, technical Specifications and direction of E-I-C. 4.07.19.01 Steel H-Piles of 400mm x 250mm conforming to requirements of m 8,933.82 8,932.75 8,931.05 8,931.05	4.07.18.03	<u> </u>	m	1,043.00	1,041.90	1,038.87	1,038.87	
	4.07.19	length including cost of all materials and labour for hoisting, driving etc. and also including cost of dummy lengths of pile and of hire charges of all instruments as necessary complete as per drawing,						
	4.07.19.01		m	8,933.82	8,932.75	8,931.05	8,931.05	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.19.02	Steel H-Piles of 450mm x 250mm conforming to requirements of AASHTO M 183.	m	10,085.67	10,084.43	10,082.45	10,082.45	
4.07.20	Manufacturing, supplying and fixing MS shoe for RCC pre-cast pile tip with tip area 12mm x 12 mm, but area 150mm x 150mm and height 250mm, fabricated with 6mm thick 4 nos MS plate (12mm x 150mm x 250mm) at sides and one plate (12mm x 12mm) at tip, having 6mm thick continuous fillet weld at all joints and 20mm dia. 800mm long anchor MS re-bar along with 4 nos. 20mm x 20mm x 3mm MS angle welded to the tip plate including cost of all materials, labour etc. all complete as per design, drawing & direction of the E-I-C. [PWD 09.13]	each	3,442.96	3,442.96	3,442.96	3,442.96	
4.07.21	RCC-30SCCM: Reinforced cement concrete work for pre-cast driven micro pile with minimum cement content and maximum water cement ratio as specified by laboratory having minimum required average compressive strength, fc = 38.5 MPa and satisfying a specified compressive strength, fc = 30 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-I 52.5N/ ASTM C150 Type-1, water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, mixing in standard mixture machine with hoper and fed by standard measuring boxes, including all related works like breaking stone boulders into chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, casting in steel forms, compacting by vibrators and tapered rods as where necessary, curing for 28 days, driving the pile upto the design depth as per standard practice or specified method, providing all equipment, labour, materials including carrying etc. all complete as per design, drawing and direction of the E-I-C. The cost of reinforcement and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. [Using Concrete Mixture Machine and retail rate of Cement]						
4.07.21.01	X-section of pre-cast pile: 150mm x 150mm						
4.07.21.01.01	Cost of reinforced cement concrete	m	426.95	429.03	401.96	409.02	
4.07.21.01.02	Cost of driving up to 8.00m	m	240.45	237.31	226.26	226.26	
4.07.21.02	X-section of pre-cast pile: 200mm x 200mm						
4.07.21.02.01	Cost of reinforced cement concrete	m	758.72	762.45	714.27	726.85	
4.07.21.02.02	Cost of driving up to 8.00m	m	316.27	312.05	297.09	297.09	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.22	Pre-cast spliced pile jointing by supplying, fitting, fixing prefabricated square shaped two steel caps made up by 6 mm thick ASTM A36 complied M.S plate, sides formed by bent in channel shape to have only two line of joinery on faces, having min 50 mm dia hole on its web; capping by min 12 mm thick ASTM A36 complied M.S plate shaping the edges in 45, having min 40 mm dia hole at centre to pass 25 mm M.S bar 433 mm in length; jointed at channels root by welding; caps fitted with 2 nos BDS ISO 6935-2 2016: B420 DWR complied d20 U-bar 1244mm in length by welding, equidistant from centre holes of cap and shall have min 75 mm clear from pile faces; and finally, the system to be fitted in correct alignments on pile head positions waiting for concreting; both the pile heads fitted with the steel caps to be welded together through v-notches in field, while one of the companion segment of piles drived in ground and other one placed over it maintaining true verticality; all complete as per direction and stepwise approval leading to final approval of Engineer-in- charge.						
4.07.22.01	X-section of pre cast pile segment : 300 mm x 300 mm	each	10,937.42	10,924.74	10,831.67	10,844.35	
4.07.22.02	X-section of pre cast pile segment : 350 mm x 350 mm	each	12,357.22	12,344.63	12,244.47	12,257.07	
4.07.22.03	X-section of pre cast pile segment : 400 mm x 400 mm	each	13,931.59	13,918.90	13,813.48	13,826.17	
4.07.22.04	X-section of pre cast pile segment: 450 mm x 450 mm	each	14,285.03	14,272.44	14,163.94	14,176.53	
4.07.23 01	SLT: Conducting static load test as per ASTM D 1143 or equivalent standard for the cast in situ/ pre-cast pile providing required land development (earth exavation, sand filling, sub-base, cement concrete work, bullah palisading etc.), Crib wall (sand bags, brick works, CC blocks etc.) depending on test loading, scaffolding, bracing, jacks, pressure test gauge, loading unloading, arranging other necessary plants and equipment including staging, mobilization, demobilization, cost of empty gunny/ fertilizer/ plastic bag, concrete block/ steel sheet, sand and filling sacs/ empty gunny/fertilizer/plastic bags, switching, loading and unloading, record readings and preparation of results in standard forms and other incidental charges as per standard practice and procedures including submission of load test report, furnishing all graph and chart etc. complete in all respects approved and accepted by the E-I-C. Before commencing load test, Contractor shall submit methodology along with combined calibration report for conducting load test to the E-I-C for approval. The Testing firm will be selected taking prior approval of procuring entity. The methodology of static load test and driving logs/ boring & pouring logs shall be the part of test report. Load Test and Report shall be conducted under the supervision of a professional Geotechnical Engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB). [Cost of Combined Calibration Test (Hydraulic Jack, pressure gauge & electric/hydraulic pump) has been included in all sub-items.]	each	148 387 11	148 230 85	147 147 89	147 147 82	
4.07.23.01	Up to 75 MT	each	148,387.11	148,230.85		147,147.82	
4.07.23.02	Above 75 MT and up to 125 MT	each	198,928.56	· ·	197,689.26	197,689.26	
4.07.23.03	Above 125 MT and up to 175 MT	each	260,499.76			258,888.67	
4.07.23.04	Above 175 MT and up to 225 MT	each	311,041.21			309,430.12	
4.07.23.05	Above 225 MT and up to 275 MT	each	361,602.80			359,991.71	
4.07.23.06	Above 275 MT and up to 325 MT	each	414,850.89			412,991.95	
4.07.23.07	Above 325 MT and up to 375 MT	each	465,392.07			463,533.13	
4.07.23.08	Above 375 MT and up to 500 MT	each	507,132.61		504,019.03	504,019.03	
4.07.23.09	Above 500 MT and up to 700 MT	each	778,268.24			774,531.94	
4.07.23.10	Above 700 MT and up to 900 MT	each	943,438.73			938,768.36	
4.07.23.11	Above 900 MT and up to 1100 MT	each	1,411,639.30	1,409,636.80	1,405,381.47	1,405,381.47	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.23.12	Above 1100 MT and up to 1300 MT	each	1,682,263.26	1,679,760.12	1,674,440.96	1,674,440.96	
4.07.23.13	Above 1300 MT and up to 1500 MT	each	1,934,497.93	1,931,494.16	1,925,111.17	1,925,111.17	
4.07.23.14	Above 1500 MT and up to 1700 MT	each	2,496,871.04	2,493,667.03	2,486,858.50	2,486,858.50	
4.07.23.15	Above 1700 MT and up to 1900 MT	each	2,749,309.71	2,745,705.20	2,738,045.61	2,738,045.61	
4.07.23.16	Above 1900 MT and up to 2100 MT	each	3,000,705.83	2,996,700.82	2,988,190.16	2,988,190.16	
4.07.23.17	On each additional load Above 2100 MT	MT	1,432.40	1,430.49	1,426.44	1,426.44	
4.07.24	LLT: Performing Lateral load test for test load of 1.5 times of the working lateral load in accordance with ASTM D 3966 (Standard Test Methods for Deep Foundations under Lateral Load) on working pile including the cost of arranging kenteldge, jacks, platform, reaction frame with required anchorage, island where required, preparing the pile head if necessary, dial gauges, joist and all other necessary arrangement, loading and unloading, submission of the result, removal of all arrangement after completion, cost of all labour, material, carriage, leads and lift etc. complete as per approved drawing, Technical specification and as directed by the Engineer-incharge. Before commencing load test, Contractor shall submit methodology for conducting load test to the E-I-C for approval. The Testing firm will be selected taking prior approval of procuring entity. The methodology of lateral load test and driving logs/ boring & pouring logs shall be the part of test report. Lateral Load Test and Report shall be conducted under the supervision of a professional Geotechnical Engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB).						
4.07.24.01	LLT_50: Up to 50 ton capacity pile	each	34,786.22	34,786.22	34,786.22	34,786.22	
4.07.24.02	LLT_50+: Above 50 ton capacity pile	each	52,823.51	52,823.51	52,823.51	52,823.51	
4.07.26	PIT (Pile Integrity Test): Conducting Low-Strain Impact Integrity Testing on cast-in-situ/ pre-cast piles in accordance with ASTM D 5882 (Standard Test Method for Low Strain Impact Integrity Testing of Deep Foundations) using pile integrity tester containing calibrated measuring devices like highly sensitive accelerometer, a magnification device, an amplification box, a small impact device (hammer) & a computer with ability to convert data from analog to digital form with graphical display on completion of required setting/ driving of piles, preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc., mobilizing and demobilizing of equipment, preparation of results in standard forms and compiling final report with recommendations on the tests etc. complete in all respects approved and accepted by the E-I-C. Report should include proper presentable graph of same wave speed (m/sec), impendence reduction, interpretation of results, cross sectional or material changes (if any), length of pile, concrete quality etc. Routine test samples shall be chosen by E-I-C or random basis. Methodology for conducting PIT shall be submitted to the E-I-C for approval and shall be the part of PIT report. All pile integrity tests shall be performed and analyzed under the supervison of a professional geotechnical engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB).						
4.07.26.01	PIT on 10 (ten) nos. piles or less of a single bridge (up to 100km of Dhaka/ nearby source to site)	set	38,651.35			38,586.93	
4.07.26.02	Additional charge on Mobilization & demobilization beyond 100km of Dhaka/ nearby source to site	km	47.24	47.24	47.24	47.24	
4.07.26.03	PIT on each additional pile after 10(ten) piles tested.	each	1,717.92	1,717.92	1,713.63	1,713.63	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.27	PDA (Pile Driving Analyzer) Test: Performing high-strain dynamic testing on piles in accordance with ASTM D 4945 (Standard Method for High-Strain Dynamic Testing of Deep Foundation) to evaluate integrity of the hardened pile using pile driving analyser by impacting a weight of atleast 1.5% to 2% of required ultimate pile bearing capacity with a fall varying from 1m to 3m including preparing head, providing ply and sheet plates, fixing atleast 2 pairs of strain & acceleration sensors at diametrically opposite sides, experts, labour, mobilization, demobilization, data acquisition, CAPWAP analysis, integrity, interpolation, preparation of results in standard forms etc. complete in all respects approved and accepted by the E-I-C. Routine test samples shall be chosen by E-I-C on random basis. Before commencing PDA test, Contractor shall submit methodology for conducting test to the E-I-C for approval. The report should include true static capacity of the pile at the time of testing, simulated static load test curve, total skin variation along the length of pile, skin friction variation along the length of the pile, compressive and tensile stresses developed in pile during testing, net and total displacement of the pile & pile integrity. The Testing firm will be selected taking prior approval of procuring entity. All PDA testing shall be performed and analyzed under the supervison of a professional geotechnical engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB).						
4.07.27.01	For test load up to 100 MT						
4.07.27.01.01	Only one pile at a site to test in single run	each	113,990.81	113,898.78	113,530.68	113,530.68	
4.07.27.01.02	Up to two piles at a site to test in single run	each	94,051.62	93,959.59	93,591.49	93,591.49	
4.07.27.01.03	Up to three piles at a site to test in single run	each	87,404.89	87,312.87	86,944.76	86,944.76	
4.07.27.01.04	four or above piles at a site to test in single run	each	84,082.03	83,990.00	83,621.89	83,621.89	
4.07.27.02	For test load 101 MT to 300 MT						
4.07.27.02.01	Only one pile at a site to test in single run	each	182,753.41	182,661.38	182,293.27	182,293.27	
4.07.27.02.02	Up to two piles at a site to test in single run	each	132,905.43	132,813.41	132,445.30	132,445.30	
4.07.27.02.03	Up to three piles at a site to test in single run	each	116,289.11	116,197.08	115,828.97	115,828.97	
4.07.27.02.04	four or above piles at a site to test in single run	each	107,981.45	107,889.42	107,521.31	107,521.31	
4.07.27.03	For test load 301 MT to 500 MT						
4.07.27.03.01	Only one pile at a site to test in single run	each	299,616.99	299,524.97	299,156.86	299,156.86	
4.07.27.03.02	Up to two piles at a site to test in single run	each	219,860.24	219,768.21	219,400.10	219,400.10	
4.07.27.03.03	Up to three piles at a site to test in single run	each	193,274.32	193,182.29	192,814.18	192,814.18	
4.07.27.03.04	four or above piles at a site to test in single run	each	179,981.86	179,889.83	179,521.72	179,521.72	
4.07.27.04	For test load 501 MT to 800 MT						
4.07.27.04.01	Only one pile at a site to test in single run	each	384,918.38	384,826.35	384,458.24	384,458.24	
4.07.27.04.02	Up to two piles at a site to test in single run	each	280,237.64	280,145.61	279,777.50	279,777.50	
4.07.27.04.03	Up to three piles at a site to test in single run	each	245,344.05	245,252.03	244,883.92	244,883.92	
4.07.27.04.04	four or above piles at a site to test in single run	each	227,897.26	227,805.24	227,437.13	227,437.13	
4.07.27.05	For test load above 800 MT						
4.07.27.05.01	Only one pile at a site to test in single run	each	434,766.35	434,674.32	434,306.22	434,306.22	
4.07.27.05.02	Up to two piles at a site to test in single run	each	305,161.62	305,069.59	304,701.49	304,701.49	
4.07.27.05.03	Up to three piles at a site to test in single run	each	261,963.37	261,871.34	261,503.23	261,503.23	
4.07.27.05.04	four (or above) piles at a site to test in single run	each	240,359.26	240,267.23	239,899.12	239,899.12	

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1	2	3	4	5	6	7	
4.07.28	CSL Access Tube Installation: Supplying and Installation of 38 to 50mm inside diameter standard weight MS access tubes in each diameter drilled shaft to permit possible inspection by CSL having regular internal diameter, free of defects and obstructions, free from corrosion with clean internal and external faces to ensure a good bond between the concrete and the tubes, fit with a watertight shoe on the bottom and removable cap on the top, extended to within 150mm of the bottom of the drilled shaft to at least 1.0m above the top of the concrete and at least 0.6m but not more than 1.5m above the ground surface including materials, labour, tools and equipment necessary for unobstructed passage of the probes during the CSL Testing.	m	891.67	890.30	884.52	884.52	
4.07.29	CSL (Crosshole Sonic Logging) Test: Conducting ultrasonic crosshole testing for checking homogeneity, structural integrity, location of defects (if any) of concrete in bored pile/ drilled shafts in accordance with ASTM D 6760 (Standard Test Method for Integrity Testing of Concrete Deep Foundation by Ultrasonic Crosshole Testing) providing all equipment, experts, labour, mobilization, demobilization, data acquisition, analysis software, integrity, interpolation, preparation of results in standard forms etc. complete in all respects approved and accepted by the E-I-C. The contractor shall provide a pleliminary report to the E-I-C within 72 hours after the CSL testing has been finished and furnish two copies of the final CSL testing report sealed by the professional Geotechnical Engineer within 10 working days of testing. The final report should include CSL logs with analysis of the initial pulse arrival time versus depth and pulse energy/ amplitude versus depth and summary of the CSL test results which covers bored pile identification, test data, shaft age at time of CSL testing, bored pile diameter, number of CSL tubes tested, test length, average compression velocity & a drecription of defects detected. Before commencing CSL test, Contractor shall submit methodology with resumes of the consulting personnel for conducting test to the E-I-C for approval. All CSL testing shall be performed and analyzed under the supervision of a professional geotechnical engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB). The Testing firm will be selected taking prior approval of procuring entity.						
4.07.29.01	Mobilization & demobilization within 100km of Dhaka/ nearby source to site and CSL Testing on 4 (four) nos. access tubes or less of a single bored pile/drilled shafts	set	278,611.82	278,598.94	278,482.99	278,482.99	
4.07.29.02	Additional charge on Mobilization & demobilization beyond 100km of Dhaka/ nearby source to site	km	47.24	47.24	47.24	47.24	
4.07.29.03	CSL Testing on each additional access tube after 4(four) access tubes	each	57,091.27	57,088.05	57,059.06	57,059.06	
4.07.30	PG: Conducting post-grouting of the large diameter piles by repeatedly injecting high presssure grout after 1 or 2 days of concreting to improve shaft friction and end-bearing. Head displacement during base grouting operations must be carefully monitored and limited to 3mm. Conduit pipes with easily removable plugs at the bottom/ peripheral end should be placed in the bore along with reinforcement cage before concreting. including the cost of arranging kenteldge, jacks, platform, reaction frame with required anchorage, island where required, preparing the pile head if necessary, dial gauges, joist and all other necessary arrangement, loading and unloading, submission of the result, removal of all arrangement after completion, cost of all labour, material, carriage, leads and lift etc. complete as per approved drawing, Technical specification and as directed by the Engineer-in-charge. Before commencing post-grouting, Contractor shall submit methodology for conducting post-grouting to the Engineer-in-charge for approval. The firm will be selected taking prior approval of procuring entity. This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.						
4.07.30.01	PG_60: Post-grouting work by applying pressure up to 60 bars	cum	37,556.23	37,272.79	36,332.27	36,332.27	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.07.31	VH-MD: Mobilization and demobilization of Crane (crawler) and vibratory Hammer etc. compelete rig set (PWD 09.26)	set/site	149,206.00	149,206.00	149,206.00	149,206.00	
	Well Foundation Work		_				
4.08.01	Sinking of Well as per specification through all types of strata namely sandy soil, clayey soil and rock as shown against each case, including drawing Foundation Wells true to position and plumb with dia under cutting edge as mentioned below, including hire charges of all tools and plants etc. and supplying power, dewatering etc., initial excavation of earth complete as per drawing and technical specifications and direction of the Engineer-in-charge including throwing the spoils clear off the well up to 150m radius (Measurement to be taken in the following stages from the level of the bottom of capping slab on well up to the bottom of cutting edge) through any kind of soil including rocky soil and rock till 25% of cutting edge (linear) comes in contact with rock including testing of bottom plug by dewatering the well upto 5 meters and checking the rise in water level as per Specification. Depth of sinking is reckoned from bed level.						
4.08.01.01	Sinking of 6m external diameter well in Sandy Soil						
4.08.01.01.01	Depth below bed level up to 3.0 m	m	6,592.08	6,565.09	6,381.52	6,381.52	
4.08.01.01.02	Depth beyond 3.0 m up to 10.0 m	m	9,252.40	9,218.65	8,989.20	8,989.20	
4.08.01.01.03	Depth beyond 10.0 m up to 15.0 m	m	10,732.78	10,693.64	10,427.47	10,427.47	
4.08.01.01.04	Depth beyond 15.0 m up to 20.0 m	m	13,693.55	13,643.61	13,304.02	13,304.02	
4.08.01.01.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	22,668.37	22,585.70	22,023.54	22,023.54	
4.08.01.01.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	32,383.39	32,265.29	31,462.20	31,462.20	
4.08.01.01.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	49,962.95	49,780.73	48,541.68	48,541.68	
4.08.01.02	Sinking of 6m external diameter well in Clayey Soil						
4.08.01.02.01	Depth below bed level up to 3.0 m	m	9,303.01	9,272.64	9,039.81	9,039.81	
4.08.01.02.02	Depth beyond 3.0 m up to 10.0 m	m	22,466.25	22,405.51	21,939.86	21,939.86	
4.08.01.02.03	Depth beyond 10.0 m up to 15.0 m	m	26,959.50	26,886.62	26,327.83	26,327.83	
4.08.01.02.04	Depth beyond 15.0 m up to 20.0 m	m	34,822.69	34,728.55	34,006.78	34,006.78	
4.08.01.02.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	58,412.25	58,254.34	57,043.63	57,043.63	
4.08.01.02.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	85,371.76	85,140.95	83,371.46	83,371.46	
4.08.01.02.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	125,811.01	125,470.88	122,863.20	122,863.20	
4.08.01.03	Sinking of 6m external diameter well in Soft Rock						
4.08.01.03.01	Depth below bed level up to 3.0 m	m	35,416.72	35,134.51	33,693.79	33,693.79	
4.08.01.04	Sinking of 7m external diameter well in Sandy Soil						
4.08.01.04.01	Depth below bed level up to 3.0 m	m	9,759.36	9,725.61	9,496.16	9,496.16	
4.08.01.04.02	Depth beyond 3.0 m up to 10.0 m	m	12,925.01	12,884.52	12,609.18	12,609.18	
4.08.01.04.03	Depth beyond 10.0 m up to 15.0 m	m	14,993.01	14,946.04	14,626.64	14,626.64	
4.08.01.04.04	Depth beyond 15.0 m up to 20.0 m	m	19,129.02	19,069.09	18,661.58	18,661.58	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.08.01.04.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	31,666.28	31,567.07	30,892.48	30,892.48	
4.08.01.04.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	45,237.54	45,095.82	44,132.11	44,132.11	
4.08.01.04.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	69,795.06	69,576.41	68,089.55	68,089.55	
4.08.01.05	Sinking of 7m external diameter well in Clayey Soil						
4.08.01.05.01	Depth below bed level up to 3.0 m	m	12,925.01	12,884.52	12,609.18	12,609.18	
4.08.01.05.02	Depth beyond 3.0 m up to 10.0 m	m	23,525.89	23,471.90	23,103.42	23,103.42	
4.08.01.05.03	Depth beyond 10.0 m up to 15.0 m	m	28,231.06	28,166.28	27,724.11	27,724.11	
4.08.01.05.04	Depth beyond 15.0 m up to 20.0 m	m	36,465.12	36,381.44	35,810.30	35,810.30	
4.08.01.05.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	61,167.30	61,026.93	60,068.89	60,068.89	
4.08.01.05.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	89,398.37	89,193.21	87,793.00	87,793.00	
4.08.01.05.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	131,744.96	131,442.62	129,379.16	129,379.16	
4.08.01.06	Sinking of 7m external diameter well in Soft Rock						
4.08.01.06.01	Depth below bed level up to 3.0 m	m	30,118.22	29,977.11	29,036.62	29,036.62	
4.08.01.07	Sinking of 8m external diameter well in Sandy Soil						
4.08.01.07.01	Depth below bed level up to 3.0 m	m	11,912.71	11,872.22	11,596.88	11,596.88	
4.08.01.07.02	Depth beyond 3.0 m up to 10.0 m	m	14,610.82	14,563.58	14,239.65	14,239.65	
4.08.01.07.03	Depth beyond 10.0 m up to 15.0 m	m	16,948.56	16,893.76	16,517.99	16,517.99	
4.08.01.07.04	Depth beyond 15.0 m up to 20.0 m	m	21,624.02	21,554.10	21,074.68	21,074.68	
4.08.01.07.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	35,796.52	35,680.78	34,887.14	34,887.14	
4.08.01.07.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	51,137.89	50,972.54	49,838.77	49,838.77	
4.08.01.07.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	78,898.45	78,643.35	76,894.10	76,894.10	
4.08.01.08	Sinking of 8m external diameter well in Clayey Soil						
4.08.01.08.01	Depth below bed level up to 3.0 m	m	15,830.98	15,783.74	15,444.96	15,444.96	
4.08.01.08.02	Depth beyond 3.0 m up to 10.0 m	m	24,426.16	24,365.42	23,932.16	23,932.16	
4.08.01.08.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	29,311.39	29,238.50	28,718.59	28,718.59	
4.08.01.08.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	37,860.54	37,766.40	37,094.84	37,094.84	
4.08.01.08.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	63,508.01	63,350.09	62,223.60	62,223.60	
4.08.01.08.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	92,819.39	92,588.59	90,942.19	90,942.19	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.01.08.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	136,786.47	136,446.34	134,020.07	134,020.07
4.08.01.09	Sinking of 8m external diameter well in Soft Rock					
4.08.01.09.01	Depth below bed level up to 3.0 m	m	33,074.43	32,905.10	31,827.04	31,827.04
4.08.01.10	Sinking of 9m external diameter well in Sandy Soil					
4.08.01.10.01	Depth below bed level up to 3.0 m	m	12,107.75	12,063.88	11,774.37	11,774.37
4.08.01.10.02	Depth beyond 3.0 m up to 10.0 m	m	16,013.19	15,959.20	15,606.92	15,606.92
4.08.01.10.03	Depth beyond 10.0 m up to 15.0 m	m	18,575.30	18,512.68	18,104.03	18,104.03
4.08.01.10.04	Depth beyond 15.0 m up to 20.0 m	m	23,699.53	23,619.62	23,098.25	23,098.25
4.08.01.10.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	39,232.32	39,100.05	38,236.97	38,236.97
4.08.01.10.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	56,046.18	55,857.22	54,624.24	54,624.24
4.08.01.10.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	86,471.24	86,179.70	84,277.39	84,277.39
4.08.01.11	Sinking of 9m external diameter well in Clayey Soil					
4.08.01.11.01	Depth below bed level up to 3.0 m	m	16,778.63	16,728.01	16,357.51	16,357.51
4.08.01.11.02	Depth beyond 3.0 m up to 10.0 m	m	26,793.58	26,726.10	26,264.49	26,264.49
4.08.01.11.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	32,152.30	32,071.31	31,517.39	31,517.39
4.08.01.11.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	41,530.05	41,425.45	40,709.96	40,709.96
4.08.01.11.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	69,663.31	69,487.85	68,287.67	68,287.67
4.08.01.11.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	101,815.61	101,559.16	99,805.05	99,805.05
4.08.01.11.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	150,044.06	149,666.14	147,081.13	147,081.13
4.08.01.12	Sinking of 9m external diameter well in Soft Rock					
4.08.01.12.01	Depth below bed level up to 3.0 m	m	38,581.78	38,384.23	37,173.52	37,173.52
4.08.01.13	Sinking of 10m external diameter well in Sandy Soil					
4.08.01.13.01	Depth below bed level up to 3.0 m	m	14,327.38	14,280.14	13,976.45	13,976.45
4.08.01.13.02	Depth beyond 3.0 m up to 10.0 m	m	16,979.73	16,922.37	16,537.02	16,537.02
4.08.01.13.03	Depth beyond 10.0 m up to 15.0 m	m	19,696.49	19,629.95	19,182.95	19,182.95
4.08.01.13.04	Depth beyond 15.0 m up to 20.0 m	m	25,130.01	25,045.11	24,474.79	24,474.79
4.08.01.13.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	41,600.35	41,459.81	40,515.71	40,515.71
4.08.01.13.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	59,429.07	59,228.30	57,879.58	57,879.58
4.08.01.13.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	91,690.57	91,380.81	89,299.93	89,299.93

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.08.01.14	Sinking of 10m external diameter well in Clayey Soil						
4.08.01.14.01	Depth below bed level up to 3.0 m	m	18,828.73	18,754.49	18,271.97	18,271.97	
4.08.01.14.02	Depth beyond 3.0 m up to 10.0 m	m	27,163.31	27,089.08	26,562.68	26,562.68	
4.08.01.14.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	32,595.97	32,506.89	31,875.22	31,875.22	
4.08.01.14.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	42,103.13	41,988.07	41,172.16	41,172.16	
4.08.01.14.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	70,624.61	70,431.60	69,062.97	69,062.97	
4.08.01.14.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	103,220.58	102,938.49	100,938.19	100,938.19	
4.08.01.14.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	152,114.54	151,698.82	148,751.01	148,751.01	
4.08.01.15	Sinking of 10m external diameter well in Soft Rock						
4.08.01.15.01	Depth below bed level up to 3.0 m	m	41,993.87	41,768.10	40,423.34	40,423.34	
4.08.01.16	Sinking of 11m external diameter well in Sandy Soil						
4.08.01.16.01	Depth below bed level up to 3.0 m	m	32,425.91	32,336.82	31,749.69	31,749.69	
4.08.01.16.02	Depth beyond 3.0 m up to 10.0 m	m	27,261.84	27,140.37	26,341.33	26,341.33	
4.08.01.16.03	Depth beyond 10.0 m up to 15.0 m	m	31,623.74	31,482.82	30,555.94	30,555.94	
4.08.01.16.04	Depth beyond 15.0 m up to 20.0 m	m	40,347.52	40,167.74	38,985.16	38,985.16	
4.08.01.16.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	66,791.51	66,493.90	64,536.25	64,536.25	
4.08.01.16.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	95,416.44	94,991.28	92,194.64	92,194.64	
4.08.01.16.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	147,213.94	146,557.97	142,243.16	142,243.16	
4.08.01.17	Sinking of 11m external diameter well in Clayey Soil						
4.08.01.17.01	Depth below bed level up to 3.0 m	m	31,400.11	31,292.13	30,487.70	30,487.70	
4.08.01.17.02	Depth beyond 3.0 m up to 10.0 m	m	56,664.35	56,509.13	55,357.82	55,357.82	
4.08.01.17.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	67,997.22	67,810.96	66,429.38	66,429.38	
4.08.01.17.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	87,829.75	87,589.16	85,804.61	85,804.61	
4.08.01.17.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	147,327.32	146,923.75	143,930.32	143,930.32	
4.08.01.17.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	215,324.54	214,734.71	210,359.70	210,359.70	
4.08.01.17.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	317,320.38	316,451.15	310,003.76	310,003.76	
4.08.01.18	Sinking of 11m external diameter well in Soft Rock						
4.08.01.18.01	Depth below bed level up to 3.0 m	m	93,201.91	92,693.92	89,716.54	89,716.54	
4.08.01.19	Sinking of 12m external diameter well in Sandy Soil						

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.08.01.19.01	Depth below bed level up to 3.0 m	m	67,913.00	67,697.04	66,301.42	66,301.42	
4.08.01.19.02	Depth beyond 3.0 m up to 10.0 m	m	77,590.56	77,334.11	75,533.58	75,533.58	
4.08.01.19.03	Depth beyond 10.0 m up to 15.0 m	m	90,005.05	89,707.57	87,618.95	87,618.95	
4.08.01.19.04	Depth beyond 15.0 m up to 20.0 m	m	114,834.03	114,454.49	111,789.69	111,789.69	
4.08.01.19.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	190,096.88	189,468.58	185,057.26	185,057.26	
4.08.01.19.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	271,566.97	270,669.40	264,367.51	264,367.51	
4.08.01.19.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	418,989.04	417,604.22	407,881.31	407,881.31	
4.08.01.20	Sinking of 12m external diameter well in Clayey Soil						
4.08.01.20.01	Depth below bed level up to 3.0 m	m	76,448.69	76,205.74	74,343.11	74,343.11	
4.08.01.20.02	Depth beyond 3.0 m up to 10.0 m	m	136,004.17	135,680.23	133,242.62	133,242.62	
4.08.01.20.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	163,205.00	162,816.28	159,891.14	159,891.14	
4.08.01.20.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	210,806.46	210,304.36	206,526.06	206,526.06	
4.08.01.20.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	353,610.83	352,768.60	346,430.81	346,430.81	
4.08.01.20.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	516,815.83	515,584.88	506,321.95	506,321.95	
4.08.01.20.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	761,623.33	759,809.30	746,158.67	746,158.67	
4.08.01.21	Sinking of 12m external diameter well in Soft Rock						
4.08.01.21.01	Depth below bed level up to 3.0 m	m	213,973.51	212,844.65	206,266.19	206,266.19	
4.08.02	Sinking of Twin D Type Well as per specification through all types of strata namely sandy soil, clayey soil and rock as shown against each case, including drawing Foundation Wells true to position and plumb with dia under cutting edge as mentioned below, including hire charges of all tools and plants etc. and supplying power, dewatering etc., initial excavation of earth complete as per drawing and technical specifications and direction of the Engineer-in-charge including throwing the spoils clear off the well up to 150m radius (Measurement to be taken in the following stages from the level of the bottom of capping slab on well up to the bottom of cutting edge). Depth of sinking is reckoned from bed level.						
4.08.02.01	Sinking of 8m external diameter well in Sandy Soil						
4.08.02.01.01	Depth below bed level up to 3.0 m	m	15,289.06	15,238.45	14,938.13	14,938.13	
4.08.02.01.02	Depth beyond 3.0 m up to 10.0 m	m	16,574.68	16,520.69	16,183.26	16,183.26	
4.08.02.01.03	Depth beyond 10.0 m up to 15.0 m	m	19,226.63	19,164.00	18,772.58	18,772.58	
4.08.02.01.04	Depth beyond 15.0 m up to 20.0 m	m	24,530.53	24,450.62	23,951.22	23,951.22	
4.08.02.01.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	40,607.97	40,475.70	39,648.99	39,648.99	
4.08.02.01.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	58,011.38	57,822.42	56,641.41	56,641.41	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.08.02.01.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	89,503.28	89,211.74	87,389.60	87,389.60	
4.08.02.02	Sinking of 8m external diameter well in Clayey Soil						
4.08.02.02.01	Depth below bed level up to 3.0 m	m	18,231.61	18,177.62	17,775.40	17,775.40	
4.08.02.02.02	Depth beyond 3.0 m up to 10.0 m	m	30,140.27	30,059.29	29,485.66	29,485.66	
4.08.02.02.03	Depth beyond 10.0 m up to 15.0 m	m	36,168.33	36,071.15	35,382.79	35,382.79	
4.08.02.02.04	Depth beyond 15.0 m up to 20.0 m	m	46,717.43	46,591.90	45,702.77	45,702.77	
4.08.02.02.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	78,364.71	78,154.16	76,662.71	76,662.71	
4.08.02.02.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	114,533.04	114,225.31	112,045.49	112,045.49	
4.08.02.02.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	168,785.54	168,332.03	165,119.67	165,119.67	
4.08.02.03	Sinking of 8m external diameter well in Soft Rock						
4.08.02.03.01	Depth below bed level up to 3.0 m	m	48,156.81	47,945.15	46,614.50	46,614.50	
4.08.03	SL: Providing Steel liner 10 mm thick for Curbs and 6 mm thick for Steining of Wells including fabrication and setting out as per detailed drawing, specification and direction of Engineer-in-Charge.	MT	130,618.38	130,473.56	128,863.61	128,863.61	
4.08.04	SCE: Providing and laying Steel Cutting edge weighing not less than 40 kg per metre for Well foundation including cost & carriage of all materials complete as per drawing, specification and direction of Engineer-in-charge.	MT	144,174.08	143,915.74	141,857.94	141,857.94	
4.08.05	PCC/RCC_WF: Plain/ Reinforced Cement Concrete, in Well foundation with coarse aggregates of appropriate nominal size and grading, fine aggregate (sand) conforming to proper grading zone, both of approved quality, cement and water reducing admixtures, as necessary, including labour, cost and carriage of all materials and including preparation of design mix, approval of the same by the Engineer-in-Charge and cost for quality control, sampling, testing etc. all complete as per drawing and technical specification including the cost of necessary form work and staging complete.						
4.08.05.01	In well curb						
4.08.05.01.01	RCC-17BCCM: Compressive strength, fc = 17 Mpa MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture Machine and retail rate of Cement]	cum	12,620.26	12,602.71	12,272.43	12,272.43	
4.08.05.01.02	RCC-20SCCM: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35), water reducing admixture of complying type A under ASTM C 494 [Using Concrete Mixture Machine and retail rate of Cement]	cum	16,873.04	17,010.38	15,746.01	16,091.12	
4.08.05.01.03	RCC-20SCBP: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35),, water reducing admixture of complying type A under ASTM C 494 [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	16,234.01	16,390.26	15,203.32	15,548.43	

Item Code	Brief Description of Item	Unit		Ra	ate	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.05.01.04	RCC-25SCCM: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30), high range water reducing admixture of complying type F under ASTM C 494 [Using Concrete Mixture Machine and retail rate of Cement]	cum	17,884.49	17,993.13	16,801.34	17,123.79
4.08.05.01.05	RCC-25SCBP: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30), high range water reducing admixture of complying type F under ASTM C 494 [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	17,184.35	17,311.90	16,197.54	16,519.99
4.08.05.01.06	RCC-30SCCM: Compressive strength, fc = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30), high range water reducing admixture of complying type F under ASTM C 494. [Using Concrete Mixture Machine and retail rate of Cement]	cum	19,084.48	19,193.12	18,001.33	18,323.78
4.08.05.01.07	PCC-30SCBP: Compressive strength, fc = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	18,161.64	18,289.19	17,174.83	17,497.28
4.08.05.02	In well steining					
4.08.05.02.01	RCC-17BCCM: Compressive strength, fc = 17 MPa Mpa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture Machine and retail rate of Cement]	cum	11,568.57	11,552.49	11,249.73	11,249.73
4.08.05.02.02	RCC-20SCCM: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35), water reducing admixture of complying type A under ASTM C 494 [Using Concrete Mixture Machine and retail rate of Cement]	cum	15,466.95	15,592.85	14,433.84	14,750.19
4.08.05.02.03	RCC-20SCBP: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35),, water reducing admixture of complying type A under ASTM C 494 [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	14,881.18	15,024.41	13,936.38	14,252.73
4.08.05.02.04	RCC-25SCCM: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture Machine and retail rate of Cement]	cum	16,394.11	16,493.70	15,401.23	15,696.80
4.08.05.02.05	RCC-25SCBP: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	15,752.32	15,869.24	14,847.75	15,143.33
4.08.05.02.06	RCC-30SCCM: Compressive strength, fc = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture Machine and retail rate of Cement]	cum	17,494.11	17,593.69	16,501.22	16,796.80

Item Code	Brief Description of Item	Unit		Ra	ate	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.05.02.07	RCC-30SCBP: Compressive strength, fc = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	16,648.17	16,765.09	15,743.60	16,039.18
4.08.05.02.08	RCC-35SCBP: Compressive strength, fc = 35 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.8 and 20mm down well graded crushed stone chips (LAA <=25). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	17,732.01	17,848.92	16,827.43	17,123.01
4.08.05.03	In Bottom Plug [Concrete to be placed using tremie pipe, 10% extra cement is included in these unit rates.]					
4.08.05.03.01	PCC-17BCCM: Compressive strength, fc = 17 MPa Mpa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 40mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture Machine and retail rate of Cement]	cum	11,878.87	11,864.55	11,582.79	11,582.79
4.08.05.03.02	PCC-20SCCM: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Concrete Mixture Machine and retail rate of Cement]	cum	15,614.23	15,744.65	14,601.83	14,876.28
4.08.05.03.03	PCC-20SCBP: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	14,743.86	14,890.87	13,815.90	14,090.36
4.08.05.03.04	PCC-25SCCM: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture Machine and retail rate of Cement]	cum	16,835.12	17,025.57	15,879.48	16,157.86
4.08.05.03.05	PCC-25SCBP: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	15,905.92	16,112.98	15,034.74	15,313.12
4.08.05.03.06	RCC-30SCCM: Compressive strength, fc = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture Machine and retail rate of Cement]	cum	17,988.01	18,178.54	17,032.55	17,310.93
4.08.05.03.07	PCC-30SCBP: Compressive strength, fc = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=25). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	16,846.55	17,053.61	15,975.37	16,253.75
4.08.05.04	In Intermediate Plug [Concrete to be placed using tremie pipe, 10% extra cement is included in these unit rates.]					

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.05.04.01	PCC-17BCCM: Compressive strength, fc = 17 MPa Mpa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 40mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture Machine and retail rate of Cement]	cum	11,313.21	11,299.57	11,031.22	11,031.22
4.08.05.04.02	PCC-20SCCM: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Concrete Mixture Machine and retail rate of Cement]	cum	14,870.70	14,994.90	13,906.50	14,167.89
4.08.05.04.03	PCC-20SCBP: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	14,041.77	14,181.78	13,158.00	13,419.39
4.08.05.04.04	PCC-25SCCM: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture Machine and retail rate of Cement]	cum	16,033.44	16,214.83	15,123.31	15,388.44
4.08.05.04.05	PCC-25SCBP: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	15,148.50	15,345.70	14,318.80	14,583.93
4.08.05.05	In Top Plug					
4.08.05.05.01	PCC-17BCCM: Compressive strength, fc = 17 MPa Mpa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 40mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture Machine and retail rate of Cement]	cum	10,339.17	10,325.61	10,057.36	10,057.36
4.08.05.05.02	PCC-20SCCM: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Concrete Mixture Machine and retail rate of Cement]	cum	13,957.92	14,082.19	12,993.89	13,255.27
4.08.05.05.03	PCC-20SCBP: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	13,425.40	13,565.42	12,541.65	12,803.03
4.08.05.05.04	PCC-25SCCM: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture Machine and retail rate of Cement]	cum	15,209.02	15,390.48	14,299.06	14,564.19
4.08.05.05.05	PCC-25SCBP: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	14,625.58	14,822.79	13,795.90	14,061.02

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.05.06	In well cap					
4.08.05.06.01	RCC-17BCCM : Compressive strength, fc = 17 MPa Mpa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture Machine and retail rate of Cement]	cum	10,885.94	10,870.53	10,584.00	10,584.00
4.08.05.06.02	RCC-20SCCM: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35), water reducing admixture of complying type A under ASTM C 494 [Using Concrete Mixture Machine and retail rate of Cement]	cum	14,588.15	14,706.90	13,613.73	13,912.11
4.08.05.06.03	RCC-20SCBP: Compressive strength, fc = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35),, water reducing admixture of complying type A under ASTM C 494 [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	14,035.66	14,170.75	13,144.54	13,442.91
4.08.05.06.04	RCC-25SCCM: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture Machine and retail rate of Cement]	cum	15,425.37	15,519.07	14,491.15	14,769.26
4.08.05.06.05	RCC-25SCBP: Compressive strength, fc = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	14,821.51	14,931.51	13,970.38	14,248.49
4.08.05.06.06	RCC-30SCCM: Compressive strength, fc = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture Machine and retail rate of Cement]	cum	16,380.85	16,474.10	15,451.14	15,727.91
4.08.05.06.07	RCC-30SCBP: Compressive strength, fc = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	15,588.74	15,698.22	14,741.73	15,018.50
4.08.05.06.08	RCC-35SCBP: Compressive strength, fc = 35 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1: 2003 CEM I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.8 and 20mm down well graded crushed stone chips (LAA <=25). [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	16,603.61	16,713.08	15,756.59	16,033.36
4.08.06	Brick work with 1st class brick in specified cement mortar in staining of wells with sand of minimum FM 1.50 and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N, cutting bricks to required sizes, cleaning and soaking bricks at least for 24 hours before use, hoisting and keeping in position the MS bond rods and finished with flush pointing joints, watering, etc. complete including cost of all materials but excluding cost of MS bond rods and bottle nuts, etc. all complete as per direction of the E-I-C.					
4.08.06.01	Cement mortar (1:3)	cum	10,681.88	10,629.12	10,270.22	10,263.22
4.08.06.02	Cement mortar (1:4)	cum	10,205.18	10,152.42	9,793.52	9,786.52

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
Section-09:	Reinforced Cement Concrete (RCC) Works						
4.09.01	RCC-17BCCM: Reinforced cement concrete work with minimum cement content relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.45 having minimum required average strength, fcr = 24 MPa and satisfying a compressive strength fc = 17 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming to garadation requirement as per ASTM C 33 including screening chips through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, fed by standard measuring boxes, maintaining allowable slump of 50mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength at the contractor's own cost. [Using Concrete Mixture Machine and retail rate of Cement]						
4.09.01.01	For pile caps, abutment base of bridges and bottom slab of box culverts	cum	12,680.29	12,635.90	12,242.17	12,242.17	
4.09.01.02	For diaphragm walls, wing walls, piers, columns, pier caps, abutments of bridges and vertical members of box culverts						
4.09.01.02.01	For height up to 5m	cum	13,261.96	13,215.53	12,803.73	12,803.73	
4.09.01.02.02	For height above 5m	cum	16,577.45	16,519.41	16,004.67	16,004.67	
4.09.01.03	For solid slab type super-structure including cantilever, side walk, curb, wheel guard of bridges						
4.09.01.03.01	For height Up to 5m	cum	16,286.61	16,229.60	15,723.89	15,723.89	
4.09.01.03.02	For height above 5m	cum	18,322.44	18,258.30	17,689.37	17,689.37	
4.09.01.04	For T-girder & slab type super-structure including cross girders, side walk, curb, wheel guard of bridges						
4.09.01.04.01	For height up to 5m	cum	17,417.16	17,344.76	16,787.18	16,787.18	
4.09.01.04.02	For height above 5m	cum	19,812.02	19,729.67	19,095.42	19,095.42	
4.09.01.05	For top slab including curb and wheel guard of box culvert						
4.09.01.05.01	For height up to 5m	cum	14,890.62	14,838.49	14,376.12	14,376.12	
4.09.01.05.02	For height above 5m	cum	15,784.06	15,728.80	15,238.69	15,238.69	
4.09.01.06	For cast-in-situ/ pre-cast railing and rail post of bridges and box culverts						
4.09.01.06.01	For pre-cast railing and rail post	cum	15,495.27	15,430.86	14,934.80	14,934.80	
4.09.01.06.02	For cast-in-situ railing and rail post	cum	13,693.49	13,636.57	13,198.20	13,198.20	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.02	RCC-20SCCM: Reinforced cement concrete work with minimum cement content relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.4 having minimum required average strength, fcr = 28.5 MPa and satisfying a compressive strength fc = 20 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.2 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 35) conforming to ASTM C33 including screening chips through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, fed by standard measuring boxes, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. [Using Concrete Mixture Machine and retail rate of Cement]						
4.09.02.01	For pile caps, abutment base of bridges and bottom slab of Box Culvert	cum	16,824.71	16,921.21	15,679.32	15,992.79	
4.09.02.02	For diaphragm walls, wing walls, piers, columns, abutments of bridges and vertical members of box culverts						
4.09.02.02.01	For height up to 5m	cum	17,358.69	17,459.62	16,160.75	16,488.61	
4.09.02.02.02	For height above 5m to 10m	cum	21,698.36	21,824.52	20,200.94	20,610.76	
4.09.02.02.03	For height above 10m to 15m	cum	26,038.03	26,189.43	24,241.13	24,732.91	
4.09.02.02.04	For height above 15m to 20m	cum	30,377.70	30,554.33	28,281.32	28,855.06	
4.09.02.02.05	For height above 20m	cum	31,245.63	31,427.31	29,089.35	29,679.49	
4.09.02.03	For solid slab type super-structure including cantilever, side walk, curb, wheel guard of bridges						
4.09.02.03.01	For height up to 5m	cum	21,317.68	21,441.64	19,846.54	20,249.17	
4.09.02.03.02	For height above 5m to 10m	cum	23,982.39	24,121.84	22,327.36	22,780.31	
4.09.02.03.03	For height above 10m to 15m	cum	26,647.10	26,802.05	24,808.17	25,311.46	
4.09.02.03.04	For height above 15m to 20m	cum	29,311.82	29,482.25	27,288.99	27,842.61	
4.09.02.03.05	For height above 20m	cum	29,844.76	30,018.29	27,785.15	28,348.84	
4.09.02.04	For T-girder & slab type super-structure including cross girders, side walk, curb, wheel guard of bridges						
4.09.02.04.01	For height up to 5 m	cum	22,627.91	22,742.94	21,057.07	21,474.08	
4.09.02.04.02	For height above 5m to 10m	cum	25,739.25	25,870.10	23,952.42	24,426.77	
4.09.02.04.03	For height above 10m to 15m	cum	28,850.58	28,997.25	26,847.77	27,379.46	
4.09.02.04.04	For height above 15m to 20m	cum	31,961.92	32,124.41	29,743.12	30,332.14	
4.09.02.04.05	For height above 20m	cum	32,584.19	32,749.84	30,322.19	30,922.68	
4.09.02.05	For top slab including curb and wheel guard of box culvert						
4.09.02.05.01	For height up to 5m	cum	19,490.45	19,603.78	18,145.41	18,513.53	
4.09.02.05.02	For height above 5m	cum	20,659.88	20,780.01	19,234.13	19,624.34	
4.09.02.06	For cast-in-situ/ pre-cast railing & rail post of bridges and box culverts						
4.09.02.06.01	For pre-cast railing & rail post	cum	18,978.71	18,957.59	18,017.45	18,240.29	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.02.06.02	For cast-in-situ railing & rail post	cum	16,771.88	16,753.22	15,922.39	16,119.32	
4.09.03	RCC-25SCCM: Reinforced cement concrete work with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. [Using Concrete Mixture Machine and retail rate of Cement]						
4.09.03.01	For pile caps, abutment base, facing elements of Reinforced/ Mechanically Stabilized Earth Structure, bottom slab of Box Culvert etc.	cum	17,516.07	17,586.50	16,410.54	16,703.43	
4.09.03.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges and vertical members of box culverts						
4.09.03.02.01	For height up to 5m	cum	18,319.56	18,393.22	17,163.32	17,469.64	
4.09.03.02.02	For height above 5m to 10m	cum	22,899.45	22,991.53	21,454.15	21,837.05	
4.09.03.02.03	For height above 10m to 15m	cum	27,479.34	27,589.83	25,744.98	26,204.46	
4.09.03.02.04	For height above 15m to 20m	cum	32,059.23	32,188.14	30,035.81	30,571.88	
4.09.03.02.05	For height above 20m	cum	32,975.21	33,107.80	30,893.97	31,445.36	
4.09.03.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges						
4.09.03.03.01	For height up to 5 m	cum	24,908.17	25,008.33	23,336.09	23,752.59	
4.09.03.03.02	For height above 5m to 10m	cum	27,648.07	27,759.24	25,903.06	26,365.37	
4.09.03.03.03	For height above 10m to 15m	cum	30,387.97	30,510.16	28,470.03	28,978.15	
4.09.03.03.04	For height above 15 m to 20 m	cum	33,127.87	33,261.08	31,037.00	31,590.94	
4.09.03.03.05	For height above 20m	cum	35,867.77	36,011.99	33,603.97	34,203.72	
4.09.03.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges						
4.09.03.04.01	Height up to 5 m	cum	26,317.32	26,405.98	24,642.50	25,072.43	
4.09.03.04.02	For height above 5m to 10m	cum	28,291.12	28,386.43	26,490.69	26,952.86	
4.09.03.04.03	For height above 10m to 15m	cum	30,264.92	30,366.88	28,338.88	28,833.30	
4.09.03.04.04	For height above 15m to 20m	cum	32,238.72	32,347.33	30,187.06	30,713.73	
4.09.03.04.05	For height above 20m	cum	34,212.52	34,327.78	32,035.25	32,594.16	
4.09.03.05	For top slab including curb and wheel guard of box culvert						
4.09.03.05.01	Height up to 5 m	cum	20,890.73	20,974.73	19,572.20	19,921.52	
4.09.03.05.02	For height above 5m	cum	22,144.17	22,233.21	20,746.54	21,116.81	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.03.06	For Arch/ inclined girder of bridges				4-44-44		
4.09.03.06.01	For height up to 5m	cum	27,564.91	27,656.34	25,807.38	26,250.74	
4.09.03.06.02	For height above 5m to 10m	cum	31,010.52	31,113.38		29,532.08	
4.09.03.06.03	For height above 10m to 15m	cum	34,456.13	34,570.42		32,813.43	
4.09.03.06.04	For height above 15m to 20m	cum	37,901.75	38,027.46	·	36,094.77	
4.09.03.06.05	For height above 20m	cum	38,590.87	38,718.87	36,130.33	36,751.04	
4.09.03.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	25,711.66	25,815.05	24,088.87	24,518.80	
4.09.03.08	For cast-in-situ/ pre-cast railing and rail post of bridges & culverts						
4.09.03.08.01	For pre-cast railing and rail post	cum	20,132.50	20,087.64	19,193.24	19,400.26	
4.09.03.08.02	For cast-in-situ railing and rail post	cum	17,791.51	17,751.87	16,961.47	17,144.42	
4.09.03.09	For Pre-cast paving slab for bridge footpath	cum	17,516.07	17,586.50	16,410.54	16,703.43	
4.09.04.01	RCC-25SCBP: Reinforced cement concrete work with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant and pumping using line pump or boom placer, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	cum	17,556.20	17,640.00	16,500.82	16,793,71	
4.09.04.02	Mechanically Stabilized Earth Structure, bottom slab of Box Culvert etc. For diaphragm walls, wing walls, piers, columns, projected pile cap	Cum	17,550.20	17,040.00	10,000.02	10,735.71	
	above water level, pier caps, abutments of bridges and vertical members of box culverts						
4.09.04.02.01	For height up to 5m	cum	18,361.53	18,449.17	17,257.74	17,564.06	
4.09.04.02.02	For height above 5m to 10m	cum	22,951.91	23,061.47	21,572.17	21,955.08	
4.09.04.02.03	For height above 10m to 15m	cum	27,542.29	27,673.76	25,886.61	26,346.09	
4.09.04.02.04	For height above 15m to 20m	cum	32,132.67	32,286.06	30,201.04	30,737.11	
4.09.04.02.05	For height above 20m	cum	33,050.75	33,208.51	31,063.93	31,615.31	
4.09.04.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges						
4.09.04.03.01	For height up to 5 m	cum	24,965.23	25,084.40	23,464.47	23,880.96	
4.09.04.03.02	For height above 5m to 10m	cum	27,711.41	27,843.69	26,045.56	26,507.87	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.04.03.03	For height above 10m to 15m	cum	30,457.58	30,602.97	28,626.65	29,134.77
4.09.04.03.04	For height above 15m to 20m	cum	33,203.76	33,362.26	31,207.74	31,761.68
4.09.04.03.05	For height above 20m	cum	35,949.93	36,121.54	33,788.83	34,388.59
4.09.04.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.04.04.01	For height up to 5m	cum	26,376.22	26,484.51	24,775.02	25,204.95
4.09.04.04.02	For height above 5m to 10m	cum	28,354.44	28,470.85	26,633.15	27,095.32
4.09.04.04.03	For height above 10m to 15m	cum	30,332.66	30,457.19	28,491.27	28,985.69
4.09.04.04.04	For height above 15m to 20m	cum	32,310.87	32,443.53	30,349.40	30,876.07
4.09.04.04.05	For height above 20m	cum	34,289.09	34,429.87	32,207.53	32,766.44
4.09.04.05	For top slab including curb and wheel guard of box culvert					
4.09.04.05.01	For height up to 5 m	cum	20,938.58	21,038.53	19,679.88	20,029.19
4.09.04.05.02	For height above 5m	cum	22,194.90	22,300.84	20,860.67	21,230.95
4.09.04.06	For Arch/ inclined girder of bridges					
4.09.04.06.01	For height up to 5 m	cum	27,625.64	27,737.32	25,944.04	26,387.40
4.09.04.06.02	For height above 5m to 10m	cum	31,078.85	31,204.49	29,187.04	29,685.83
4.09.04.06.03	For height above 10m to 15m	cum	34,532.05	34,671.65	32,430.04	32,984.25
4.09.04.06.04	For height above 15m to 20m	cum	37,985.26	38,138.82	35,673.05	36,282.68
4.09.04.06.05	For height above 20m	cum	38,675.90	38,832.25	36,321.65	36,942.36
4.09.04.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	25,770.56	25,893.58	24,221.39	24,651.32
4.09.04.08	For cast-in-situ/ pre-cast railing and rail post of bridges & culverts					
4.09.04.08.01	For pre-cast railing and rail post	cum	20,179.98	20,150.95	19,300.08	19,507.11
4.09.04.08.02	For cast-in-situ railing and rail post	cum	17,833.47	17,807.82	17,055.89	17,238.84
4.09.04.09	For Pre-cast paving slab for bridge footpath	cum	17,556.20	17,640.00	16,500.82	16,793.71
4.09.05	RCC-30SCCM: Reinforced cement concrete work with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average strength, f'cr = 38.5 MPa and satisfying a compressive strength f'c = 30 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N / ASTM C150 Type I, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. [Using Concrete Mixture Machine and retail rate of Cement]					

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.05.01	For foundation of Pier & Abutment of Bridges and Box Culverts	cum	18,606.07	18,676.50	17,500.54	17,793.43	
4.09.05.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges and vertical members of box culverts						
4.09.05.02.01	For height up to 5m	cum	19,459.56	19,533.22	18,303.31	18,609.64	
4.09.05.02.02	For height above 5m to 10m	cum	24,324.45	24,416.52	22,879.14	23,262.05	
4.09.05.02.03	For height above 10m to 15m	cum	29,189.33	29,299.83	27,454.97	27,914.46	
4.09.05.02.04	For height above 15m to 20m	cum	34,054.22	34,183.13	32,030.80	32,566.87	
4.09.05.02.05	For height above 20m	cum	35,027.20	35,159.79	32,945.96	33,497.35	
4.09.05.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges						
4.09.05.03.01	For height up to 5m	cum	26,458.17	26,558.32	24,886.08	25,302.58	
4.09.05.03.02	For height above 5m to 10m	cum	29,368.57	29,479.74	27,623.55	28,085.86	
4.09.05.03.03	For height above 10m to 15m	cum	32,278.97	32,401.15	30,361.02	30,869.15	
4.09.05.03.04	For height above 15m to 20m	cum	35,189.36	35,322.57	33,098.49	33,652.43	
4.09.05.03.05	For height above 20m	cum	38,099.76	38,243.98	35,835.96	36,435.71	
4.09.05.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges						
4.09.05.04.01	For height up to 5m	cum	27,917.32	28,005.98	26,242.50	26,672.43	
4.09.05.04.02	For height above 5m to 10m	cum	30,011.12	30,106.43	28,210.68	28,672.86	
4.09.05.04.03	For height above 10m to 15m	cum	32,104.92	32,206.88	30,178.87	30,673.29	
4.09.05.04.04	For height above 15m to 20m	cum	34,198.72	34,307.32	32,147.06	32,673.72	
4.09.05.04.05	For height above 20m	cum	36,292.51	36,407.77	34,115.24	34,674.15	
4.09.05.05	For top slab including curb and wheel guard of box culvert						
4.09.05.05.01	For height up to 5m	cum	22,190.72	22,274.72	20,872.20	21,221.52	
4.09.05.05.02	For height above 5m	cum	23,522.17	23,611.21	22,124.53	22,494.81	
4.09.05.06	For Arch/ inclined girder of bridges						
4.09.05.06.01	For height up to 5m	cum	28,911.21	29,012.76	27,178.99	27,622.35	
4.09.05.06.02	For height above 5m to 10m	cum	32,525.11	32,639.36	30,576.36	31,075.15	
4.09.05.06.03	For height above 10m to 15m	cum	36,139.01	36,265.96	33,973.73	34,527.94	
4.09.05.06.04	For height above 15m to 20m	cum	39,752.91	39,892.55	37,371.11	37,980.74	
4.09.05.06.05	For height above 20m	cum	40,475.70	40,617.87	38,050.58	38,671.30	
4.09.05.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	27,311.66	27,415.04	25,688.86	26,118.79	
4.09.05.08	For cast-in-situ/ pre-cast railing and rail post of bridges & box culverts						
4.09.05.08.01	For pre-cast railing and rail post	cum	21,422.49	21,377.63	20,483.24	20,690.26	
4.09.05.08.02	For cast-in-situ railing and rail post	cum	18,931.51	18,891.86	18,101.47	18,284.42	
4.09.05.09	For Pre-cast paving slab for bridge footpath	cum	18,606.07	18,676.50	17,500.54	17,793.43	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
4.09.06	2	3	4	5	6	7
4.03.00	RCC-30SCBP: Reinforced cement concrete work with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 38.5 MPa and satisfying a specified compressive strength, fcr = 30 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-I 52.5N / ASTM C150 Type I, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.50 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]					
4.09.06.01	For foundation of Pier & Abutment of Bridges and Facing Elements of Reinforced/ Mechanically Stabilized Earth Structure	cum	18,443.90	18,527.71	17,388.52	17,681.41
4.09.06.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.06.02.01	For height up to 5 m	cum	19,289.95	19,377.60	18,186.16	18,492.49
4.09.06.02.02	For height above 5m to 10m	cum	24,112.44	24,222.00	22,732.70	23,115.61
4.09.06.02.03	For height above 10m to 15m	cum	28,934.93	29,066.40	27,279.24	27,738.73
4.09.06.02.04	For height above 15m to 20m	cum	33,757.41	33,910.80	31,825.79	32,361.86
4.09.06.02.05	For height above 20m	cum	34,721.91	34,879.68	32,735.09	33,286.48
4.09.06.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.06.03.01	For Height up to 5m	cum	26,227.56	26,346.74	24,726.80	25,143.30
4.09.06.03.02	For height above 5m to 10m	cum	28,850.32	28,981.41	27,199.48	27,657.63
4.09.06.03.03	For height above 10m to 15m	cum	31,473.08	31,616.08	29,672.16	30,171.96
4.09.06.03.04	For height above 15m to 20m	cum	34,095.83	34,250.76	32,144.84	32,686.28
4.09.06.03.05	For height above 20m	cum	36,718.59	36,885.43	34,617.52	35,200.61
4.09.06.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.06.04.01	For Height up to 5m	cum	27,679.28	27,787.57	26,078.07	26,508.00
4.09.06.04.02	For height above 5m to 10m	cum	29,478.43	29,593.76	27,773.15	28,231.03
4.09.06.04.03	For height above 10m to 15m	cum	31,277.58	31,399.95	29,468.22	29,954.05
4.09.06.04.04	For height above 15m to 20m	cum	33,076.73	33,206.14	31,163.30	31,677.07
4.09.06.04.05	For height above 20m	cum	34,875.89	35,012.34	32,858.37	33,400.09
4.09.06.05	For top slab including curb and wheel guard of box culvert					
4.09.06.05.01	For height up to 5m	cum	21,997.31	22,097.26	20,738.61	21,087.93

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.06.05.02	For height above 5m	cum	23,207.16	23,312.61	21,879.23	22,247.76	
4.09.06.06	For Arch/ inclined girder of bridges						
4.09.06.06.01	For Height up to 5m	cum	28,530.49	28,640.47	26,874.36	27,311.01	
4.09.06.06.02	For height above 5m to 10m	cum	32,096.80	32,220.53	30,233.65	30,724.88	
4.09.06.06.03	For height above 10m to 15m	cum	35,663.11	35,800.59	33,592.95	34,138.76	
4.09.06.06.04	For height above 15m to 20m	cum	39,229.42	39,380.65	36,952.24	37,552.63	
4.09.06.06.05	For height above 20m	cum	39,942.68	40,096.66	37,624.10	38,235.41	
4.09.06.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	27,073.62	27,196.63	25,524.44	25,954.37	
4.09.06.08	For Box Girder and Balanced Cantilever						
4.09.06.08.01	For height up to 5m	cum	28,969.42	29,081.09	27,287.81	27,731.18	
4.09.06.08.02	For height above 5m to 10m	cum	32,590.60	32,716.23	30,698.79	31,197.57	
4.09.06.08.03	For height above 10m to 15m	cum	36,211.77	36,351.37	34,109.76	34,663.97	
4.09.06.08.04	For height above 15m to 20m	cum	39,832.95	39,986.50	37,520.74	38,130.37	
4.09.06.08.05	For height above 20m	cum	40,557.19	40,713.53	38,202.93	38,823.65	
4.09.07	RCC-35SCBP: Reinforced cement concrete work with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 45 MPa and satisfying a specified compressive strength, fcr = 35 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N / ASTM C150 Type I, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]						
4.09.07.01	For foundation of Pier & Abutment of Bridges and Facing Elements of Reinforced/ Mechanically Stabilized Earth Structure	cum	19,517.88	19,601.69	18,462.50	18,755.39	
4.09.07.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges						
4.09.07.02.01	For height up to 5 m	cum	20,413.20	20,500.85	19,309.41	19,615.73	
4.09.07.02.02	For height above 5m to 10m	cum	25,516.49	25,626.06	24,136.76	24,519.67	
4.09.07.02.03	For height above 10m to 15m	cum	30,619.79	30,751.27	28,964.11	29,423.60	
4.09.07.02.04	For height above 15m to 20m	cum	35,723.09	35,876.48	33,791.46	34,327.53	
4.09.07.02.05	For height above 20m	cum	36,743.75	36,901.52	34,756.93	35,308.32	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.07.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges						
4.09.07.03.01	For height up to 5 m	cum	26,859.47	26,974.80	25,407.12	25,810.18	
4.09.07.03.02	For height above 5m to 10m	cum	29,411.12	29,537.40	27,820.79	28,262.14	
4.09.07.03.03	For height above 10m to 15m	cum	31,962.77	32,100.01	30,234.47	30,714.11	
4.09.07.03.04	For height above 15m to 20m	cum	34,514.42	34,662.61	32,648.14	33,166.08	
4.09.07.03.05	For height above 20m	cum	37,066.07	37,225.22	35,061.82	35,618.04	
4.09.07.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges						
4.09.07.04.01	For height up to 5 m	cum	28,341.52	28,446.43	26,790.35	27,206.85	
4.09.07.04.02	For height above 5m to 10m	cum	30,183.72	30,295.44	28,531.73	28,975.29	
4.09.07.04.03	For height above 10m to 15m	cum	32,025.91	32,144.46	30,273.10	30,743.74	
4.09.07.04.04	For height above 15m to 20m	cum	33,868.11	33,993.48	32,014.47	32,512.18	
4.09.07.04.05	For height above 20m	cum	35,710.31	35,842.50	33,755.85	34,280.63	
4.09.07.05	For Arch/ inclined girder of bridges						
4.09.07.05.01	For height up to 5 m	cum	29,668.04	29,776.33	28,037.39	28,467.32	
4.09.07.05.02	For height above 5m to 10m	cum	33,376.55	33,498.38	31,542.06	32,025.74	
4.09.07.05.03	For height above 10m to 15m	cum	37,085.05	37,220.42	35,046.74	35,584.15	
4.09.07.05.04	For height above 15m to 20m	cum	40,793.56	40,942.46	38,551.41	39,142.57	
4.09.07.05.05	For height above 20m	cum	41,535.26	41,686.87	39,252.35	39,854.25	
4.09.07.06	For Box Girder, Segmental Construction and Balanced Cantilever						
4.09.07.06.01	For height up to 5m	cum	30,131.60	30,241.59	28,475.48	28,912.12	
4.09.07.06.02	For height above 5m to 10m	cum	33,898.05	34,021.79	32,034.91	32,526.14	
4.09.07.06.03	For height above 10m to 15m	cum	37,664.51	37,801.99	35,594.34	36,140.15	
4.09.07.06.04	For height above 15m to 20m	cum	41,430.96	41,582.18	39,153.78	39,754.17	
4.09.07.06.05	For height above 20m	cum	42,184.25	42,338.22	39,865.67	40,476.97	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.08	RCC-40SCBP: Reinforced cement concrete work with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 50 MPa and satisfying a specified compressive strength, f'cr = 40 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N / ASTM C150 Type I, high range water reducing admixture of complying type F/G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]					
4.09.08.01	For foundation of Pier & Abutment of bridges	cum	19,824.16	19,907.96	18,768.78	19,061.67
4.09.08.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.08.02.01	For height up to 5m	cum	20,733.52	20,821.17	19,629.74	19,936.06
4.09.08.02.02	For height above 5m to 10m	cum	25,916.90	26,026.47	24,537.17	24,920.08
4.09.08.02.03	For height above 10m to 15m	cum	31,100.29	31,231.76	29,444.60	29,904.09
4.09.08.02.04	For height above 15m to 20m	cum	36,283.67	36,437.05	34,352.04	34,888.11
4.09.08.02.05	For height above 20m	cum	37,320.34	37,478.11	35,333.52	35,884.91
4.09.08.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.08.03.01	For height up to 5m	cum	27,496.22	27,611.54	26,043.86	26,446.92
4.09.08.03.02	For height above 5m to 10m	cum	30,108.36	30,234.64	28,518.03	28,959.38
4.09.08.03.03	For height above 14m to 15m	cum	32,720.50	32,857.74	30,992.20	31,471.84
4.09.08.03.04	For height above 19m to 20m	cum	35,332.64	35,480.83	33,466.37	33,984.30
4.09.08.03.05	For height above 20m	cum	37,944.78	38,103.93	35,940.53	36,496.76
4.09.08.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.08.04.01	For height up to 5m	cum	28,777.05	28,881.96	27,225.89	27,642.38
4.09.08.04.02	For height above 5m to 10m	cum	30,503.67	30,614.88	28,859.44	29,300.92
4.09.08.04.03	For height above 10m to 15m	cum	32,230.30	32,347.79	30,492.99	30,959.47
4.09.08.04.04	For height above 15m to 20m	cum	33,956.92	34,080.71	32,126.55	32,618.01
4.09.08.04.05	For height above 20m	cum	35,683.54	35,813.63	33,760.10	34,276.55
4.09.08.05	For Arch/ inclined girder of bridges					
4.09.08.05.01	For height up to 5m	cum	29,647.04	29,753.64	28,041.86	28,465.08
4.09.08.05.02	For height above 5m to 10m	cum	33,352.92	33,472.84	31,547.10	32,023.21

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.08.05.03	For height above 10m to 15m	cum	37,058.79	37,192.05	35,052.33	35,581.35	
4.09.08.05.04	For height above 15m to 20m	cum	40,764.67	40,911.25	38,557.56	39,139.48	
4.09.08.05.05	For height above 20m	cum	41,505.85	41,655.09	39,258.61	39,851.11	
4.09.08.06	For Box Girder, Segmental Construction and Balanced Cantilever						
4.09.08.06.01	For height up to 5m	cum	30,588.21	30,698.20	28,932.08	29,368.73	
4.09.08.06.02	For height above 5m to 10m	cum	34,411.74	34,535.47	32,548.59	33,039.82	
4.09.08.06.03	For height above 10m to 15m	cum	38,235.26	38,372.75	36,165.10	36,710.91	
4.09.08.06.04	For height above 15m to 20m	cum	42,058.79	42,210.02	39,781.61	40,382.00	
4.09.08.06.05	For height above 20m	cum	42,823.50	42,977.47	40,504.92	41,116.22	
4.09.09	Marine Concrete_RCC_30SCCM: Reinforced cement concrete work for Marine region with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average strength, for = 40.0 MPa and satisfying a compressive strength for = 30 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ASTM and Portland Composite cement conforming to BDS EN 197-1:2003 CEM II/B-V (70% CEM I + 30% Siliceous Fly Ash) or CEM III/IA (60% CEM I + 40% Blast-furnace Slag), high range water reducing admixture of complying type F or G under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture & Drinkable water with storage reservior for Concreteing is included in this unit rate. The Mix Design shall have to be approved by the Central Quality Control Laboratory(CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Concrete Mixture Machine and retail rate of Cement]						
4.09.09.01	For foundation of Pier & Abutment of Bridges and Box Culverts	cum	19,360.39	19,430.83	18,254.86	18,547.75	
4.09.09.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges and vertical members of box culverts						
4.09.09.02.01	For height up to 5m	cum	20,248.49	20,322.15	19,092.24	19,398.57	
4.09.09.02.02	For height above 5m to 10m	cum	25,310.61	25,402.68	23,865.30	24,248.21	
4.09.09.02.03	For height above 10m to 15m	cum	30,372.73	30,483.22	28,638.36	29,097.85	
4.09.09.02.04	For height above 15m to 20m	cum	35,434.85	35,563.76	33,411.43	33,947.49	
4.09.09.02.05	For height above 20m	cum	36,447.27	36,579.87	34,366.04	34,917.42	
4.09.09.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges						
4.09.09.03.01	For height up to 5m	cum	27,530.84	27,630.99	25,958.75	26,375.25	
4.09.09.03.02	For height above 5m to 10m	cum	30,559.23	30,670.40	28,814.21	29,276.52	
4.09.09.03.03	For height above 10m to 15m	cum	33,587.62	33,709.81	31,669.68	32,177.80	
4.09.09.03.04	For height above 15m to 20m	cum	36,616.01	36,749.22	34,525.14	35,079.08	
4.09.09.03.05	For height above 20m	cum	39,644.40	39,788.63	37,380.60	37,980.36	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.09.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges						
4.09.09.04.01	For height up to 5m	cum	29,024.59	29,113.25	27,349.76	27,779.70	
4.09.09.04.02	For height above 5m to 10m	cum	31,201.43	31,296.74	29,401.00	29,863.17	
4.09.09.04.03	For height above 10m to 15m	cum	33,378.28	33,480.24	31,452.23	31,946.65	
4.09.09.04.04	For height above 15m to 20m	cum	35,555.12	35,663.73	33,503.46	34,030.13	
4.09.09.04.05	For height above 20m	cum	37,731.96	37,847.22	35,554.69	36,113.60	
4.09.09.05	For top slab including curb and wheel guard of box culvert						
4.09.09.05.01	For height up to 5m	cum	23,090.38	23,174.38	21,771.86	22,121.17	
4.09.09.05.02	For height above 5m	cum	24,475.80	24,564.84	23,078.17	23,448.45	
4.09.09.06	For Arch/ inclined girder of bridges						
4.09.09.06.01	For height up to 5m	cum	30,053.08	30,154.64	28,320.86	28,764.23	
4.09.09.06.02	For height above 5m to 10m	cum	33,809.72	33,923.97	31,860.97	32,359.75	
4.09.09.06.03	For height above 10m to 15m	cum	37,566.35	37,693.29	35,401.07	35,955.28	
4.09.09.06.04	For height above 15m to 20m	cum	41,322.99	41,462.62	38,941.18	39,550.81	
4.09.09.06.05	For height above 20m	cum	42,074.32	42,216.49	39,649.20	40,269.92	
4.09.09.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	28,418.93	28,522.31	26,796.13	27,226.06	
4.09.09.08	For cast-in-situ/ pre-cast railing and rail post of bridges & box culverts						
4.09.09.08.01	For pre-cast railing and rail post	cum	22,315.23	22,270.37	21,375.97	21,583.00	
4.09.09.08.02	For cast-in-situ railing and rail post	cum	19,720.43	19,680.79	18,890.39	19,073.34	
4.09.09.09	For Pre-cast paving slab for bridge footpath	cum	19,360.39	19,430.83	18,254.86	18,547.75	
4.09.10	Marine Concrete_RCC_30SCBP: Reinforced cement concrete work for Marine region with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 40.0 MPa and satisfying a specified compressive strength, fcr = 30 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and Portland Composite cement conforming to BDS EN 197-1:2003 CEM II/B-V (70% CEM I + 30% Siliceous Fly Ash) or CEM III/A (60% CEM I + 40% Blast-furnace Slag), high range water reducing admixture of complying type F or G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.50 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture & Drinkable water with storage reservior for Concreteing is included in this unit rate. The Mix Design report shall have to be approved by the Central Quality Control Laboratory (CQCL),LGED or any other reputed laboratory approved by the competent authority before execution of the work [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]						

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.10.01	For foundation of Pier & Abutment of Bridges and Facing Elements of Reinforced/ Mechanically Stabilized Earth Structure	cum	19,477.76	19,561.56	18,422.38	18,715.27
4.09.10.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.10.02.01	For height up to 5 m	cum	20,371.23	20,458.88	19,267.44	19,573.77
4.09.10.02.02	For height above 5m to 10m	cum	25,464.04	25,573.60	24,084.30	24,467.21
4.09.10.02.03	For height above 10m to 15m	cum	30,556.85	30,688.32	28,901.17	29,360.65
4.09.10.02.04	For height above 15m to 20m	cum	35,649.66	35,803.04	33,718.03	34,254.10
4.09.10.02.05	For height above 20m	cum	36,668.22	36,825.99	34,681.40	35,232.79
4.09.10.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.10.03.01	For height up to 5 m	cum	27,697.73	27,816.90	26,196.96	26,613.46
4.09.10.03.02	For height above 5m to 10m	cum	30,467.50	30,598.59	28,816.66	29,274.80
4.09.10.03.03	For height above 10m to 15m	cum	33,237.27	33,380.28	31,436.36	31,936.15
4.09.10.03.04	For height above 15m to 20m	cum	36,007.05	36,161.97	34,056.05	34,597.50
4.09.10.03.05	For height above 20m	cum	38,776.82	38,943.66	36,675.75	37,258.84
4.09.10.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.10.04.01	For height up to 5 m	cum	29,196.86	29,305.16	27,595.66	28,025.59
4.09.10.04.02	For height above 5m to 10m	cum	30,948.67	31,063.46	29,251.40	29,707.13
4.09.10.04.03	For height above 10m to 15m	cum	32,992.45	33,114.83	31,183.10	31,668.92
4.09.10.04.04	For height above 15m to 20m	cum	34,744.27	34,873.13	32,838.84	33,350.45
4.09.10.04.05	For height above 20m	cum	36,788.05	36,924.50	34,770.53	35,312.25
4.09.10.05	For top slab including curb and wheel guard of box culvert					
4.09.10.05.01	For height up to 5 m	cum	23,230.35	23,330.30	21,971.65	22,320.97
4.09.10.05.02	For height above 5m	cum	24,508.02	24,613.47	23,180.09	23,548.62
4.09.10.06	For Arch/ inclined girder of bridges					
4.09.10.06.01	For height up to 5 m	cum	30,071.79	30,181.77	28,415.66	28,852.31
4.09.10.06.02	For height above 5m to 10m	cum	33,830.76	33,954.49	31,967.61	32,458.84
4.09.10.06.03	For height above 10m to 15m	cum	37,589.73	37,727.21	35,519.57	36,065.38
4.09.10.06.04	For height above 15m to 20m	cum	41,348.71	41,499.94	39,071.53	39,671.92
4.09.10.06.05	For height above 20m	cum	42,100.50	42,254.48	39,781.92	40,393.23
4.09.10.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	28,591.20	28,714.22	27,042.03	27,471.96
4.09.10.08	For Box Girder and Balanced Cantilever					
4.09.10.08.01	For height up to 5 m	cum	30,534.43	30,646.11	28,852.82	29,296.19
4.09.10.08.02	For height above 5m to 10m	cum	34,351.23	34,476.87	32,459.42	32,958.21
4.09.10.08.03	For height above 10m to 15m	cum	38,168.04	38,307.63	36,066.03	36,620.23
4.09.10.08.04	For height above 15m to 20m	cum	41,984.84	42,138.40	39,672.63	40,282.26
4.09.10.08.05	For height above 20m	cum	42,748.20	42,904.55	40,393.95	41,014.66

Item Code	Brief Description of Item	Unit		Ra	nte	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.11	Marine Concrete_RCC_35SCBP: Reinforced cement concrete work for Marine region with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 45 MPa and satisfying a specified compressive strength, fc = 35 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and Portland Composite Cement conforming to BDS EN 197-1:2003 CEM II/B-V (70% CEM I + 30% Siliceous Fly Ash) or CEM III/A (60% CEM I + 40% Blast-fumace Slag), high range water reducing admixture of complying type F or G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.50 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture & Drinkable water with storage reservior for Concreteing is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]					
4.09.11.01	For foundation of Pier & Abutment of Bridges and Facing Elements of Reinforced/ Mechanically Stabilized Earth Structure	cum	19,505.84	19,589.65	18,450.47	18,743.36
4.09.11.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.11.02.01	For height up to 5 m	cum	20,400.61	20,488.26	19,296.82	19,603.14
4.09.11.02.02	For height above 5m to 10m	cum	25,500.76	25,610.32	24,121.02	24,503.93
4.09.11.02.03	For height above 10m to 15m	cum	30,600.91	30,732.38	28,945.23	29,404.72
4.09.11.02.04	For height above 15m to 20m	cum	35,701.06	35,854.45	33,769.43	34,305.50
4.09.11.02.05	For height above 20m	cum	36,721.09	36,878.86	34,734.27	35,285.66
4.09.11.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.11.03.01	For height up to 5 m	cum	26,842.90	26,958.23	25,390.55	25,793.61
4.09.11.03.02	For height above 5m to 10m	cum	29,392.98	29,519.26	27,802.65	28,244.00
4.09.11.03.03	For height above 10m to 15m	cum	31,943.06	32,080.30	30,214.76	30,694.40
4.09.11.03.04	For height above 15m to 20m	cum	34,493.13	34,641.33	32,626.86	33,144.79
4.09.11.03.05	For height above 20m	cum	37,043.21	37,202.36	35,038.96	35,595.18
4.09.11.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.11.04.01	For height up to 5 m	cum	28,324.40	28,429.31	26,773.24	27,189.73
4.09.11.04.02	For height above 5m to 10m	cum	30,165.49	30,277.21	28,513.50	28,957.06
4.09.11.04.03	For height above 10m to 15m	cum	32,006.57	32,125.12	30,253.76	30,724.40
4.09.11.04.04	For height above 15m to 20m	cum	33,847.66	33,973.02	31,994.02	32,491.73
4.09.11.04.05	For height above 20m	cum	35,688.74	35,820.93	33,734.28	34,259.06
4.09.11.05	For Arch/ inclined girder of bridges					

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.09.11.05.01	For height up to 5 m	cum	29,650.37	29,758.66		28,449.65	
4.09.11.05.02	For height above 5m to 10m	cum	33,356.67	33,478.50	31,522.19	32,005.86	
4.09.11.05.03	For height above 10m to 15m	cum	37,062.96	37,198.33	35,024.65	35,562.07	
4.09.11.05.04	For height above 15m to 20m	cum	40,769.26			39,118.27	
4.09.11.05.05	For height above 20m	cum	41,510.52	41,662.13	39,227.61	39,829.51	
4.09.11.06	For Box Girder, Segmental Construction and Balanced Cantilever						
4.09.11.06.01	For height up to 5 m	cum	30,113.66	30,223.64	28,457.53	28,894.18	
4.09.11.06.02	For height above 5m to 10m	cum	33,877.87	34,001.60	32,014.72	32,505.95	
4.09.11.06.03	For height above 10m to 15m	cum	37,642.07	37,779.55	35,571.91	36,117.72	
4.09.11.06.04	For height above 15m to 20m	cum	41,406.28	41,557.51	39,129.10	39,729.49	
4.09.11.06.05	For height above 20m	cum	42,159.12	42,313.10	39,840.54	40,451.85	
Section-10:	Pre-Stressed Concrete (PSC) Work, HT Strand and	d Steel	Anchorage				
4.10.01	PSC-35SCCM: Providing and laying Cement Concrete in Prestressed Concrete works with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 45 MPa and satisfying a specified compressive strength, fc = 35 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N/ ASTM C150 Type I, high range water reducing admixture of complying type F or G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Concrete Mixture Machine and retail rate of Cement]						
	'	oum.	27 675 20	27 752 01	26 002 19	26 406 24	
4.10.01.01.01	For height up to 5 m	cum	27,675.29	27,753.81	26,093.18	26,496.24	
4.10.01.01.02	For height above 5 m to 10 m	cum	30,442.82			29,145.86	
4.10.01.01.03	For height above 10 m to 15 m	cum	33,210.35			31,795.49	
4.10.01.01.04	For height above 15 m to 20 m	cum	35,977.87			34,445.11	
4.10.01.01 4.10.01.02	For height above 20 m For I-Girder/T-Girder including casting of girders on staging at site or launching of precast girders by launching truss.	cum	38,745.40	38,855.33	36,530.45	37,094.73	
4.10.01.02.01	For height up to 5 m	cum	33,210.35	33,304.57	31,311.81	31,795.49	
1.10.01.02.01	· ·		1	l	,		
4.10.01.02.02	For height above 5 m to 10 m	cum	35,202.97	35,302.84	33,190.52	33,703.21	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.10.01.02.04	For height above 15 m to 20 m	cum	39,188.21	39,299.39	36,947.94	37,518.67	
4.10.01.02.05	For height above 20 m	cum	41,180.83	41,297.66	38,826.65	39,426.40	
4.10.01.03	For cast-in-situ box girder, segmental construction and balanced cantilever.						
4.10.01.03.01	For height up to 5 m	cum	36,900.38	37,005.07	34,790.90	35,328.32	
4.10.01.03.02	For height above 5 m to 10 m	cum	39,298.91	39,410.40	37,052.31	37,624.66	
4.10.01.03.03	For height above 10 m to 15 m	cum	41,697.43	41,815.73	39,313.72	39,921.00	
4.10.01.03.04	For height above 15 m to 20 m	cum	44,095.96	44,221.06	41,575.13	42,217.34	
4.10.01.03.05	For height above 20 m	cum	46,494.48	46,626.39	43,836.54	44,513.68	
4.10.02	PSC-35SCBP: Providing and laying Cement Concrete in Prestressed Concrete works with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 45 MPa and satisfying a specified compressive strength, fc = 35 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N/ ASTM C150 Type I, high range water reducing admixture of complying type F or G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 125mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or or any other reputed laboratory approved by the competent authority before execution of the workk. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]						
4.10.02.01	For Solid Slab/voided slab Super-structure.						
4.10.02.01.01	For height up to 5 m	cum	27,679.43		26,166.34	26,569.40	
4.10.02.01.02	For height above 5 m to 10 m	cum	30,447.37	30,553.99	28,782.97	29,226.34	
4.10.02.01.03	For height above 10 m to 15 m	cum	33,215.31	33,331.62	31,399.61	31,883.28	
4.10.02.01.04	For height above 15 m to 20 m	cum	35,983.26	36,109.26	34,016.24	34,540.22	
4.10.02.01.05	For height above 20 m	cum	38,751.20	38,886.89	36,632.87	37,197.16	
4.10.02.02	For I-Girder/T-Girder including casting of girders on staging at site or launching of precast girders by launching truss.						
4.10.02.02.01	For height up to 5 m	cum	33,215.31	33,331.62	31,399.61	31,883.28	
4.10.02.02.02	For height above 5 m to 10 m	cum	35,208.23	35,331.52	33,283.58	33,796.28	
4.10.02.02.03	For height above 10 m to 15 m	cum	37,201.15	37,331.42	35,167.56	35,709.27	
4.10.02.02.04	For height above 15 m to 20 m	cum	39,194.07	39,331.31	37,051.54	37,622.27	
4.10.02.02.05	For height above 20 m	cum	41,186.99	41,331.21	38,935.51	39,535.27	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.10.02.03	For cast-in-situ box girder, segmental construction and balanced cantilever.						
4.10.02.03.01	For height up to 5 m	cum	36,905.91	37,035.14	34,888.45	35,425.87	
4.10.02.03.02	For height above 5 m to 10 m	cum	39,304.79	39,442.42	37,156.20	37,728.55	
4.10.02.03.03	For height above 10 m to 15 m	cum	41,703.67	41,849.70	39,423.95	40,031.23	
4.10.02.03.04	For height above 15 m to 20 m	cum	44,102.56	44,256.99	41,691.70	42,333.91	
4.10.02.03.05	For height above 20 m	cum	46,501.44	46,664.27	43,959.45	44,636.59	
4.10.03	PSC-40SCRDM: Providing and laying Cement Concrete in Prestressed Concrete works with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fcr = 50 MPa and satisfying a specified compressive strength, fc = 40 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N/ ASTM C150 Type I, high range water reducing admixture of complying type F or G under ASTM C 494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in Reversible Drum Mixer/ Batch Mix Plant, maintaining allowable slump of 125mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Reversible Drum Mixer/ Batch Mix Plant and retail rate of Cement]						
4.10.03.01	For Solid Slab/voided slab Super-structure						
4.10.03.01.01	For height up to 5 m	cum	28,822.68	28,901.20	27,240.57	27,643.63	
4.10.03.01.02	For height above 5 m to 10 m	cum	31,704.95	31,791.32	29,964.63	30,407.99	
4.10.03.01.03	For height above 10 m to 15 m	cum	34,587.22	34,681.44	32,688.68	33,172.36	
4.10.03.01.04	For height above 15 m to 20 m	cum	37,469.49	37,571.56	35,412.74	35,936.72	
4.10.03.01.05	For height above 20 m	cum	40,351.75	40,461.68	38,136.80	38,701.08	
4.10.03.02	For I-Girder/T-Girder including casting of girders on staging at site or launching of precast girders by launching truss.						
4.10.03.02.01	For height up to 5 m	cum	34,587.22	34,681.44	32,688.68	33,172.36	
4.10.03.02.02	For height above 5 m to 10 m	cum	36,662.45	36,762.32	34,650.01	35,162.70	
4.10.03.02.03	For height above 10 m to 15 m	cum	38,737.68	38,843.21	36,611.33	37,153.04	
4.10.03.02.04	For height above 15 m to 20 m	cum	40,812.92	40,924.10	38,572.65	39,143.38	
4.10.03.02.05	For height above 20 m	cum	42,888.15	43,004.98	40,533.97	41,133.72	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.04	PSC-40SCBP: Providing and laying Cement Concrete in Prestressed Concrete works with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, fc = 50 MPa and satisfying a specified compressive strength, fc = 40 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N/ ASTM C150 Type I, high range water reducing admixture of complying type F or G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]					
4.10.04.01	For Solid Slab/voided slab Super-structure.					
4.10.04.01.01	For height up to 5 m	cum	28,107.91	28,204.83	26,594.82	26,997.88
4.10.04.01.02	For height above 5 m to 10 m	cum	30,918.70	31,025.31	29,254.30	29,697.66
4.10.04.01.03	For height above 10 m to 15 m	cum	33,729.49	33,845.80	31,913.78	32,397.45
4.10.04.01.04	For height above 15 m to 20 m	cum	36,540.28	36,666.28	34,573.26	35,097.24
4.10.04.01.05	For height above 20 m	cum	39,351.07	39,486.76	37,232.74	37,797.03
4.10.04.02	For I-Girder/T-Girder including casting of girders on staging at site or launching of precast girders by launching truss.					
4.10.04.02.01	For height up to 5 m	cum	33,729.49	33,845.80	31,913.78	32,397.45
4.10.04.02.02	For height above 5 m to 10 m	cum	35,753.26	35,876.54	33,828.61	34,341.30
4.10.04.02.03	For height above 10 m to 15 m	cum	37,777.03	37,907.29	35,743.43	36,285.15
4.10.04.02.04	For height above 15 m to 20 m	cum	39,800.80	39,938.04	37,658.26	38,228.99
4.10.04.02.05	For height above 20 m	cum	41,824.57	41,968.79	39,573.09	40,172.84
4.10.04.03	For cast-in-situ box girder, segmental construction and balanced cantilever.					
4.10.04.03.01	For height up to 5 m	cum	37,477.21	37,606.44	35,459.76	35,997.17
4.10.04.03.02	For height above 5 m to 10 m	cum	39,913.23	40,050.86	37,764.64	38,336.99
4.10.04.03.03	For height above 10 m to 15 m	cum	42,349.25	42,495.28	40,069.52	40,676.80
4.10.04.03.04	For height above 15 m to 20 m	cum	44,785.26	44,939.70	42,374.41	43,016.62
4.10.04.03.05	For height above 20 m	cum	47,221.28	47,384.11	44,679.29	45,356.43

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.10.05	PSC-45SCBP: Providing and laying Cement Concrete in Prestressed Concrete workswith minimum cement content and maximum water cement ratio as specified by the laboratory having minimum required average compressive strength, fcr = 55 MPa and satisfying a specified compressive strength, fcr = 45 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N/ASTM C150 Type I, silica fume conforming to ASTM C 1240, high range water reducing admixture of complying type F or G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shiffing & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]						
4.10.05.01	For cast-in-situ box girder, segmental construction and balanced cantilever.						
4.10.05.01.01	For height up to 5 m	cum	39,958.54	40,074.85	38,142.83	38,626.50	
4.10.05.01.02	For height above 5 m to 10 m	cum	42,256.16	42,379.15	40,336.04	40,847.53	
4.10.05.01.03	For height above 10 m to 15 m	cum	44,553.77	44,683.45	42,529.26	43,068.55	
4.10.05.01.04	For height above 15 m to 20 m	cum	46,951.28	47,087.95	44,817.83	45,386.14	
4.10.05.01.05	For height above 20 m	cum	49,149.00	49,292.06	46,915.68	47,510.60	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.10.06	PSC-50SCBP: Providing and laying Cement Concrete in Prestressed Concrete workswith minimum cement content and maximum water cement ratio as specified by the laboratory having minimum required average compressive strength, fcr = 60 MPa and satisfying a specified compressive strength, fcr = 50 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM I 52.5N/ ASTM C150 Type I, silica fume conforming to ASTM C 1240, high range water reducing admixture of complying type F/ G under ASTM C 494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]						
4.10.06.01	For cast-in-situ box girder, segmental construction and balanced cantilever.						
4.10.06.01.01	For height up to 5 m	cum	41,101.52	41,217.82	39,285.81	39,769.48	
4.10.06.01.02	For height above 5 m to 10 m	cum	43,464.85	43,587.85	41,544.74	42,056.22	
4.10.06.01.03	For height above 10 m to 15 m	cum	45,828.19	45,957.87	43,803.68	44,342.97	
4.10.06.01.04	For height above 15 m to 20 m	cum	48,191.53	48,327.90	46,062.61	46,629.71	
4.10.06.01.05	For height above 20 m	cum	50,554.86	50,697.92	48,321.54	48,916.46	
4.10.07	LRPC Strand: Providing and laying of Uncoated Seven-Wire Steel Strand conforming to AASHTO M 203/ ASTM A 416M (Grade 1860, low-relaxation type) having minimum ultimate tensile strength 1860 Mpa of required size as per design including supplying, fabrication, placing in position, providing corrugated galvanized steel sheathing duct of minimum 0.4mm thick and minimum 75mm internal diameter, decoling the strands, cutting to the required lengths, preparing cables of required number strands as per drawings, making dead ends of cables in flowers to achieve rigid ends, spacers & joineries of approved quality, inserting cables within the sheathing, fixind tendon support bars, supervising anti bursting reinforcements, maintaning profile during concreting operations, stressing of cables in sequence as per design to required loads with approved stressing jacks, Blocking with proper pressure, measuring and recording elongation and force, grouting the duct with pumpable, nonbleeeding, high strength non-shrink cementitious grout with non-shrink grout admixture conforming to ASTM C 1107, maintaining the water cement ratio between 0.47 to 0.53, cutting the excess HT strand after satisfactory tensioning & anchorage, providing patch concrete at recess end with epoxy coating, all materials, labors, equipment, tools etc. all complete including leads and lifts as per design, drawing, specification and direction of the E-I-C. [Extra Length required for stressing operation is included in this unit rate]	MT	370,387.96	369,899.74	368,737.73	368,737.73	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.08	Multi-Strand Steel Anchorage: Supplying, fitting and fixing of best quality post tensioning multi-strand steel anchorage system comprising bearing plate, wedge plate, guide tube and gripping accessories with necessary test certificate from manufacturer for origin, performance and capacity including cost of all materials and accessories, necessary performance and capacity test from BUET, placing properly in position, labour, welding and carrying etc. all complete as design, drawing and direction of the E-I-C. The geometrical size and shape of the anchorage system shall be confirmed as per drawing or manufacturer's recommendation with necessary test results. One set of extra anchorage will be required for laboratory test and necessary arrangement.					
4.10.08.01	Anchorage Type: 4K13/4T13	set	5,196.46			5,196.46
4.10.08.02	Anchorage Type: 7K13/7T13	set	5,344.93		5,344.93	5,344.93
4.10.08.03	Anchorage Type: 12K13/ 12T13	set	7,423.51	7,423.51	7,423.51	7,423.51
4.10.08.04	Anchorage Type: 19K13/ 19T13	set	11,580.68	11,580.68	11,580.68	11,580.68
4.10.08.05	Anchorage Type: 27K13/ 27T13	set	17,371.02	17,371.02	17,371.02	17,371.02
4.10.08.06	Anchorage Type: 37K13/ 37T13	set	23,161.36	23,161.36	23,161.36	23,161.36
4.10.08.07	Anchorage Type: 4K15/ 4T15	set	6,755.40	6,755.40	6,755.40	6,755.40
4.10.08.08	Anchorage Type: 7K15/ 7T15	set	10,392.92	10,392.92	10,392.92	10,392.92
4.10.08.09	Anchorage Type: 12K15/ 12T15	set	13,362.32	13,362.32	13,362.32	13,362.32
4.10.08.10	Anchorage Type: 19K15/ 19T15	set	15,589.38	15,589.38	15,589.38	15,589.38
4.10.08.11	Anchorage Type: 27K15/ 27T15	set	21,231.25	21,231.25	21,231.25	21,231.25
4.10.08.12	Anchorage Type: 37K15/ 37T15	set	24,126.42	24,126.42	24,126.42	24,126.42
4.10.09	TF_Ancr: Conducting test of Prestressing Anchorage System as per BS 4447:1973 (Specification for the performance of prestressing anchorages for post-tensioned construction), PTI (Post-Tensioning Institute) & FIP Recommendations including preparation of platform, placing of anchorage system, preparation of report with observations and recommendations for necessary measures if required. Note: One set of extra anchorage will be required for laboratory test and necessary arrangement. Tests shall be conducted at LGED/BUET/ CUET/ KUET/ RUET/SUST.	each	139,697.03	139,697.03	139,697.03	139,697.03
4.10.10	Unbonded Monostrand: Providing and laying of cold-drawn, low relaxation 7-wire coated HT strand conform to ASTM A 416 (Grade 1860, the outer diameter of HDPE sheathing should not be less then 1.27mm) having minimum ultimate tensile strength 1860 MPa of required size as per design including supplying, fabrication, placing in position, support chairs, spacers, joineries of approved quality, properly stage wise tensioning with approved jacks, Blocking with proper pressure, measuring and recording elongation and force, cutting the excess HT strand after satisfactory tensioning & anchorage, providing patch concrete at recess end with epoxy coating, all materials, labors, equipment, tools etc. all complete including leads and lifts as per design, drawing, specification and direction of the E-I-C.	MT	258,820.65	258,636.59	257,747.00	257,747.00
4.10.11	Mono Strand Anchorage: Supplying, fitting and fixing of best quality post tensioning monostrand steel anchorage system comprising bearing plate, wedge plate, guide tube and gripping accessories with necessary test certificate from manufacturer for origin, performance and capacity including cost of all materials and accessories, necessary performance and capacity test from BUET, placing properly in position, labour, welding and carrying etc. all complete as design, drawing and direction of the E-I-C. The geometrical size and shape of the anchorage system shall be confirmed as per drawing or manufacturer's recommendation with necessary test results. One set of extra anchorage will be required for laboratory test and necessary arrangement.					

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.10.11.01	MSA: 1K13/ 1T13	set	1,467.52	1,467.52	1,467.52	1,467.52	
4.10.11.02	MSA: 1K15/ 1T15	set	1,914.16	1,914.16	1,914.16	1,914.16	
4.10.13	Dummy Cable Duct: Supplying, fabricating and fixing dummy cable duct including end anchor cone, cost of equipment, labour etc. complete as per drawing, specification and direction of Engineer-incharge.	m	1,062.66	1,061.95	1,053.16	1,053.32	
4.10.14	Precast - Pretensioned Girders: Providing, precasting, transportation and placing in position precast pretensioned concrete girders as per drawings and Technical Specifications including cost of all materials & labour, hire charges for machineries, hire charges of Jack and other equipment required for stressing, other tools and plants, centering and shuttering, hire charges for casting yard, casting bed, roads for lifting and launching of the girders including charges for providing cranes, vehicle with trailer for lifting and to support the erection of girder for launching and placement at the required height and position including all charges for arrangement for movement of cranes, trailers of required number and capacity complete in all respect. [Using Batching Plant, Transit Mixer, Concrete Pump, bulk rate of Cement, non-prestressing and prestressing reinforcement]	cum	54,446.08	54,433.28	53,032.15	53,316.98	
Section-11:	MS Fabrication, Re-Bar Coupler, Bearing & Expar	sion Jo	oints				
4.11.01	Supplying and fabrication of Ribbed or deformed bar reinforcement for all types of RCC work including straightening, removing ruts, cleaning, cutting, hooking, bending, lapping and/or welding wherever required as directed, placing in position, tieing with 22 BWG black annealed binding wire (PVC coated in case of FBEC rebar) double fold, cost of binding wire and anchoring to the adjoining members wherever necessary, supplying and placing with proper cover blocks (1:1), supports, chairs, spacers, splices or laps etc. including cost of all materials, cost of labour, cost of equipment & machinery, loading and unloading, transportation, all other incidental charges and work at all leads and lifts etc. to complete the work as per design, drawing, specifications and direction of the E-I-C. Measurement relating to nominal mass, dimensions and tolerances of various types of steel shall conform to relevant BDS/ ASTM codes. Reinforcement shall be measured only in lengths of bar as actually placed in position on standard weight i.e. 7850 kg/m3 (BNBC Table 6.2.1) basis. No separate payment shall be allowed for chairs of any shape & profile, spacer bar of any shape & profile, lap/splice & welding unless otherwise shown in the drawing, wastages, binding wire etc. as the cost of these is included in the unit rate. Note: Tests for reinforcing bars shall be conducted at LGED/ BUET/ CUET/ KUET/ RUET/SUST.						
4.11.01.01	Grade B300C-R/ B300D-R/ B300DWR: Ribbed or Deformed bar produced and marked as per BDS ISO 6935-2:2016 with minimum yield strength, fy (ReH) = 300 MPa, but the tested yield strength shall not exceed fy by more than the 125 MPa and the ratio of tested ultimate strength, fu (Re) to tested yield strength (fy) shall be at least 1.25 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 17% and 8% respectively.						
4.11.01.01.01	Using retail rate of reinforcing bar	kg	114.83	114.68	114.03	114.03	
4.11.01.01.02	Using bulk rate of reinforcing bar	kg	111.08	110.92	110.28	110.28	
4.11.01.02	Grade B400C-R/ B400CWR/ 400DWR: Ribbed or Deformed bar produced and marked as per BDS ISO 6935-2:2016 with minimum yield strength, fy (ReH) = 400 MPa, but the tested yield strength shall not exceed fy by more than the 125 MPa and the ratio of tested ultimate strength, fu (Re) to tested yield strength (fy) shall be at least 1.25 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 17% and 8% respectively.						
4.11.01.02.01	Using retail rate of reinforcing bar	kg	124.84	124.69	124.05	124.05	
4.11.01.02.02	Using bulk rate of reinforcing bar	kg	122.34	122.19	121.54	121.54	
	1	1	1				

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.11.01.03	Grade B420DWR: Ribbed or Deformed bar produced and marked as per ISO 6935-2:2016/ ASTM A706M - 16 with minimum yield strength, fy(ReH) = 420 MPa but fy(ReH) not exceeding 540 MPa, the ratio of ultimate tensile strength, fu(Rm) to actual yield strength, fy(ReH) shall be at least 1.25 and minimum elongation in 200mm shall be at least 14% for bar sizes 10mm through 20mm, at least 12% for bar sizes 22mm through 32mm and at least 10% for bar sizes 40mm and 50mm.						
4.11.01.03.01	Using retail rate of reinforcing bar	kg	124.84	124.69	124.05	124.05	
4.11.01.03.02	Using bulk rate of reinforcing bar	kg	122.34	122.19	121.54	121.54	
4.11.01.04	Grade B500DWR: Deformed bar produced and marked as per BDS ISO 6935-2:2016 with minimum yield strength, fy (ReH) = 500 MPa but fy (ReH) not exceeding 1.3 ReH, the ratio of actual ultimate tensile strength, fu(Rm) to actual yield strength, fy(ReH) shall be at least 1.25 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 13% and 8% respectively. [This reinforcement shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.]						
4.11.01.04.01	Using retail rate of reinforcing bar	kg	122.34	122.19	121.54	121.54	
4.11.01.04.02	Using bulk rate of reinforcing bar	kg	119.84	119.68	119.04	119.04	
4.11.01.05	Grade 550: Deformed bar produced and marked as per ASTM A706M - 16 with minimum yield strength, fy = 550 MPa but fy not exceeding 675 MPa, minimum ultimate strength, fu = 690 MPa, the ratio of actual ultimate tensile strength, fu to actual yield strength, fy shall be at least 1.25 and minimum elongation in 200mm shall be at least 12% for bar sizes 10mm through 32mm and at least 10% for bar sizes 40mm and 50mm. [This reinforcement shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.]						
4.11.01.05.01	Using retail rate of reinforcing bar	kg	122.34	122.19	121.54	121.54	
4.11.01.05.02	Using bulk rate of reinforcing bar	kg	119.84	119.68	119.04	119.04	
4.11.01.06	Grade B600C-R: Deformed bar produced and marked as per BDS ISO 6935-2:2016 with minimum yield strength, fy (ReH) = 600 MPa, the ratio of actual ultimate tensile strength, fu(Rm) to actual yield strength, fy(ReH) shall be at least 1.15 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 10% and 7% respectively. [This reinforcement shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.]						
4.11.01.06.01	Using retail rate of reinforcing bar	kg	122.34	122.19	121.54	121.54	
4.11.01.06.02	Using bulk rate of reinforcing bar	kg	119.84	119.68	119.04	119.04	
4.11.02	FBECR: Extra over item code: 4.11.01 for providing Fusion Bonded Epoxy Coating (FBEC) to reinforcement bars as per ASTM A775/BDS ISO 14654: 2013 specification for a coating thickness (after curing) of 175 to 300 microns for 10mm to 16mm and 175 to 400 microns for 20mmm to 50mm re-bars including extra cost on account of careful handling during straightening, cutting, bending & placing, extra cost on account of tusing PVC coated binding wire instead of G.I. wire, extra cost on account of touch-up material (All cut edges/weld areas and bend locations where coating has been damaged touch up shall be done with same paint, the upper thickness limit shall not apply to repaired areas of damaged coating) supplied by coating agency and repair work, extra cost on account of transportation to and fro from steel yard to plant and plant to work site by trailer (if required), loading, unloading, flexibility & holiday testing, including all taxes, etc. complete to ensure proper resistance of FBE against corrosive environment. [Fusion Bonded Epoxy Coating to be proposed only in Coastal Area/Severe Exposure Condition with prior approval of Design Unit, LGED.]						
4.11.02.01	For Re-bar diameter: 8mm to 12mm	kg	12.88	12.88	12.88	12.88	

Item Code	Brief Description of Item	Unit		Ra	е		
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.11.02.02	For Re-bar diameter: 16mm to 50mm	kg	10.95	10.95	10.95	10.95	
4.11.03	Supplying and fabrication of High Yield strength (500 MPa, Galvanized wire rope) of required size and length for all types of Arch Bridge work including cutting, fitting, securing and placing them in position, etc. including cost of all materials, labour, local handling, laboratory test, incidentals charge to complete the work as per specifications, drawings and direction of the Engineer. Laboratory test for physical property, strength, to be performed as per ASTM	kg	279.42	279.27	278.63	278.63	
4.11.04	Supplying, fitting and fixing mechanical couplers of various diameter confirming to ACI/ AASHTO having minimum connection strength at least 125% of nominal yield strength, fy of the reinforcing bars including fitting & fixing in proper position as shown in drawing and attach to the reinforcement bars by thread, cold swaging and extrusion or hot forging including cost of all materials, labors, equipment, tools etc. all complete as per design, drawing and direction of the E-I-C. All operations relating to reinforcement coupling shall be done using supplier's petented machine/ equipment and in the presence of the supplier's representative. The contractor shall submit relevant trade literature, mill certificates, certificate of origin and letters of approval for each proposed application. A sample of each type of mechanical coupler shall be submitted for testing and approval prior to the use of any coupler in the works						
4.11.04.01	For 25mm diameter rebar Coupler	each	312.18	310.95	307.27	307.27	
4.11.04.02	For 32mm diameter rebar Coupler	each	422.32	421.09	417.41	417.41	
4.11.04.03	For 40mm diameter rebar Coupler	each	642.59	641.37	637.69	637.69	
4.11.04.04	For 50mm diameter rebar Coupler	each	698.91	697.69	694.01	694.01	
4.11.05	Providing nosing with MS angles of different sizes. including cost of all materials, welding, carrying, etc. all complete as per design, drawing and direction of the E-I-C.	kg	168.35	168.35	168.35	168.35	
4.11.06	Supplying, fitting, fixing & installation of expansion joints as indicated on the drawing and conforming to the following specifications and as directed by the E-I-C.						
4.11.06.01	Providing expansion joints between the breast walls (abutment top wall) and girders or in between the girders with steel sheet and filling the gap with sand and bitumen (80/100) as per design, drawing and direction of the E-I-C.	kg	188.32	188.38	188.04	188.04	
4.11.06.02	Strip Seal Expansion Joint: Providing and laying of Strip Seal type bridge deck expansion joint catering to maximum horizontal movement up to 80 mm including cost of all materials (edge beams, Strip seal, anchorage, angle, bar, plate etc.), fixtures, welding, preparing surface for receiving joints, installation in proper position, labour charges, testing of all materials in approved laboratory, handling, tools, equipment, all leads and lifts etc. all complete as per approved drawing, specification and direction of the E-I-C. The Installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. [The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC Deck.]	m	43,445.71	43,444.10	43,438.73	43,438.73	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.11.06.03	Modular Strip/ Box Seal Expansion Joint: Providing and laying of modular strip/ Box seal expansion joint catering to maximum horizontal movement beyond 80 mm and up to 240 mm including all materials, installation in proper position, labour charges, testing, handling, tools, equipment etc. all complete as per drawing, specification and direction of the E-I-C. The anchoring bars of the expansion joint assembly shall be welded to the main reinforcement of the deck. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. [The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC Deck.]						
4.11.06.03.01	Modular Strip Expansion: beyond 80 mm and up to 160 mm	m	213,959.37	213,957.44	213,951.59	213,951.59	
4.11.06.03.02	Modular Strip Expansion: beyond 160 mm and up to 240 mm	m	319,629.14	319,626.72	319,619.37	319,619.37	
4.11.06.04	EJ-F: Providing and laying of finger expansion joint catering to maximum horizontal movement up to 300 including all materials, installation in proper position, labour charges, testing, handling, tools, equipment etc. all complete as per drawing, specification and direction of the E-I-C. The anchoring bars of the expansion joint assembly shall be welded to the main reinforcement of the deck. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. [The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC Deck.]						
4.11.06.04.01	EJ-F_100: Finger Joint: Up to 100mm, Without Elastic Seal	m	192,056.94	192,055.00	192,049.15	192,049.15	
4.11.06.04.02	EJ-F_100E: Finger Joint: Up to 100mm, With Elastic Seal	m	366,010.76	366,008.35	366,000.99	366,000.99	
4.11.06.04.03	EJ-F_200: Finger Joint: 100mm to 200mm, Without Elastic Seal	m	297,703.96	297,702.03	297,696.18	297,696.18	
4.11.06.04.04	EJ-F_200E: Finger Joint: 100mm to 200mm, With Elastic Seal	m	595,342.11	595,339.70	595,332.34	595,332.34	
4.11.06.04.05	EJ-F_300: Finger Joint: 200mm to 300mm, Without Elastic Seal	m	605,626.39	605,624.46	605,618.61	605,618.61	
4.11.06.04.06	EJ-F_300E: Finger Joint: 200mm to 300mm, With Elastic Seal	m	1,190,572.92	1,190,570.51	1,190,563.15	1,190,563.15	
4.11.07	Supplying, fitting and fixing bridge bearings including cost of all materials, labour, welding and carrying etc. complete in all respect as per design, drawing, specification and direction of the E-l-C.						
4.11.07.01	Roller bearing with required numbers of rollers, plate and other fittings						
4.11.07.01.01	Each set up to 150 mm diameter	kg	369.83	362.22	350.81	350.81	
4.11.07.01.02	Each set beyond 150 mm diameter	kg	598.67	583.94	561.86	561.86	
4.11.07.02	Hinge plate bearing with lead plates and other fittings						
4.11.07.02.01	Each set with plate up to 25 mm thick	kg	502.53	497.62	490.26	490.26	
4.11.07.02.02	Each set with plate beyond 25 mm thick	kg	536.20	531.29	523.93	523.93	
4.11.07.03	Free plate bearing with lead plates and other fittings						
4.11.07.03.01	Each set with plate up to 25 mm thick	kg	317.35	312.44	305.08	305.08	
4.11.07.03.02	Each set with plate beyond 25 mm thick	kg	317.35	312.44	305.08	305.08	
4.11.07.04	Hinge plate bearing with lead sheets including fitting & fixing	kg	314.82	309.91	302.55	302.55	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.11.08	SLEB: Supplying, fitting and fixing steel-laminated Elastomeric/ Neoprene bearings in exact positions as per drawing, specifications and direction of the E-I-C including cost of all materials, labour, carrying etc. The set shall be of 100% virgin Chloroprene Rubber (CR), grades of raw elastomer of proven use in elastomeric bearings, with low crystallization rates and adequate shelf life viz. Neoprene WRT, Neoprene W, Bayprene 110, Bayprene 210, Skyprene B-5, Skyprene B-30, Denka S-40V and Denka M-40, shall be used. No reclaimed rubber or Vulcanized wastes or natural rubber shall be used. Use of synthetic rubber-like materials such as Ethyl Propylene Dimonomer (EPDM), Isobutane Isoprene Copolymer (IIR) and Chloro-Isoprene Copolymer (CIIR) shall not be permitted. Laboratory test to be performed from BUET, Dhaka for Elastomer hardness limits determined in accordance with ASTM D 2240 shall be 60 ± 5 duro, minimum tensile strength determined in accordance with ASTM D 412 shall be 17 MPa, ultimate elongation determined in accordance with ASTM D 412 shall be minimum 400%, compression set value after 22 hours at 100 degree centigrade determined in accordance with ASTM D 395 Method B shall be maximum 35%, Elastomeric content determined in accordance with ASTM D 297 shall not be less than 60%, Ash content determined in accordance with ASTM D 4014 shall neither be less than 0.8 MPa nor greater than 1.2 MPa, the adhesion strength of elastomer to steel plates (Peel Strength) determined in accordance with ASTM D 429 Method B shall not be less than 7kN/m. One set of Elastomeric Bearing must be taken as extra for laboratory test.	cum	3.04	3.04	3.01	3.01	
4.11.09	TF_Neo_Pad:Test fee for steel-laminated Elastomeric/ Neoprene bearings confirming to 100% virgin Chloroprene Rubber (CR), grades of raw elastomer of proven use in elastomeric bearings, with low crystallization rates and adequate shelf life viz. Neoprene WRT, Neoprene W, Bayprene 110, Bayprene 210, Skyprene B-5, Skyprene B 30, Denka S-40V and Denka M-40, shall be used. No reclaimed rubber or Vulcanized wastes or natural rubber shall be used. Use of synthetic rubber-like materials such as Ethyl Propylene Dimonomer (EPDM), Isobutane Isoprene Copolymer (IR) and Chloro-Isoprene Copolymer (CIIR) shall not be permitted. Laboratory test to be performed from BUET, Dhaka for Elastomer hardness limits determined in accordance with ASTM D 2240 shall be 60 ± 5 duro, minimum tensile strength determined in accordance with ASTM D 412 shall be 17 MPa, ultimate elongation determined in accordance with ASTM D 395 Method B shall be maximum 35%, Elastomeric content determined in accordance with ASTM D 395 Method B shall be maximum 35%, Elastomeric content determined in accordance with ASTM D 297 shall not be less than 60%, Ash content determined in accordance with ASTM D 297 shall not exceed 5%, Shear modulus of elastomeric bearing determined in accordance with ASTM D 4014 shall neither be less than 0.8 MPa nor greater than 1.2 MPa, the adhesion strength of elastomer to steel plates (Peel Strength) determined in accordance with ASTM D 429 Method B shall not be less than 7kN/m. One set of Elastomeric Bearing must be taken as extra for laboratory test but excluding cost of Bearing Pad	each	39,228.05	39,228.05	39,228.05	39,228.05	
4.11.10	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 E-I-C.						
4.11.10.01	25mm wide	m	121.98	120.63	117.87	117.84	
4.11.10.02	20mm wide	m	97.63	96.55	94.34	94.32	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.11.11	POT-PTFE Bearing: Supplying, fitting and fixing POT-PTFE bearing to the true line and level and position as per drawing and AASHTO Specifications as to impart full and even bearing on the seats and free movements/ restraints as specified including coat of all materials, fixtures, preparing surface for receiving bearing, grouting of sleeves in pier caps/ superstructures with non-shrink high early strength grout of flowable consistency, load testing of all bearings as per design and drawings and specifications, removing clamps provided for transportation and handling etc. complete including all leads and lifts as directed by E-I-C. One set must be taken as extra for laboratory test which to be performed from BUET.						
4.11.11.01	PBG: Guided/ Free Type Pot Bearing	MT	809.34	809.12	808.42	808.42	
4.11.11.02	PBF: Fixed Type Pot Bearing	MT	586.39	586.25	585.81	585.81	
4.11.12	Spherical Bearing: Supplying fitting and fixing in position true to line and level cast steel spherical/ cylindrical type bearing with stainless steel plate with PTFE sliding surface as per AASHTO specification complete with all accessories as per drawing and direction of E-I-C and including cost of all material installation. One set must be taken as extra for laboratory test which to be performed from BUET.	MT	1,164.71	1,164.60	1,164.26	1,164.26	
4.11.13	STU: Providing and fitting in position true to line and level shock transmission unit as per AASHTO specification complete with all accessories as per drawing and direction of Engineer-in-charge and including cost of all material for installation. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation.						
4.11.13.01	STU_50: Up to 50 MT of Horizontal Load	MT	36,255.00	36,252.06	36,240.27	36,240.27	
4.11.13.02	STU_50+: Above 50 MT of Horizontal Load	MT	26,618.00	26,616.74	26,611.69	26,611.69	
4.11.14	HDRB: Supplying, fitting and fitting High Damping Rubber Bearing for seismic isolation in exact positions as per drawing, specificatons and direction of the E-I-C including cost of all materials, labour, carrying etc. The devices shall be made from natural rubber (NR) providing a high resistance against mechanical wear. The bearings shall consist of alternate layers of elastomeric material and vulcanized reinforcement steel plates and provide a high level of damping of up to 16%. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. One set of HDRB must be taken as extra for laboratory test which must be performed from BUET, Dhaka.	МТ	1,108.04	1,105.09	1,093.31	1,093.31	
4.11.15	DB: Supplying, fitting and fitting Disc Bearing in exact positions as per drawing, specificatons and direction of the E-I-C including cost of all materials, labour, carrying etc. The upper and lower bearing plates shall be made of carbon steel conforming to ASTM A 709 Gr 250 or Gr 345, stainless steel as per Type 304 of ASTM A 167, polyether-Urethane rotational disc as per AASHTO Specifications and PTFE material as per ASTM D4894/ D3294. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. One set of Disc Bearing must be taken as extra for laboratory test which must be performed from BUET, Dhaka.	МТ	1,803.76	1,800.82	1,789.04	1,789.04	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
	Chemical Admixture, Galvanizing & Curing Comp	ound ar	nd Concrete	Cover Block	(S	
4.12.01	Supply and use of specified type chemical admixture delivered from an authorized local agent or manufacturer, complying with the ASTM C-494 requirements; conforming the current compliance of the admixture to specification requirements like physical properties, uniformity and equivalence in composition etc.; performance (water content, fresh concrete setting time and compressive strength) requirements, delivered in sealed water-tight containers confirming plainly marked product name & type under this specification, net weight and /or volume, manufacturing and expiry date, non aggressiveness to environment, aggregates and metals in concrete etc. and mixing the admixture in non pre-stressed cement concrete mixture in the field in accordance with manufacturers recommendation and instruction; providing safety provisions in all respects etc. all complete as per instruction and approved by the Engineer-in-charge. Dose (quantity in milli litres per 50 kg bag cement) and brand/origin/ manufacturer with respect to particular brand of cement and particular stock of aggregates and method of use to be determined by mix design / trial mix at the cost of contractor and approved by the Engineer. (Use of admixture is subjected to prior approval of design office)[PWD 07.19]					
4.12.01.01	Supply and use of water reducing chemical admixture in concrete, complying ASTM C-494 Type – A of approved brand / origin / manufacturer and supplied by only manufacturer's authorised dealer with certificate of origin. The admixture is to reduce quantity of mixing water required for normal workability and to maintain low water-cement (W/C) ratio, for improved concrete quality assurance.[PWD 07.19.1]	liter	205.00	205.00	205.00	205.00
4.12.01.02	Supply and use of retarding chemical admixture in concrete, complying ASTM C-494 Type - B of approved brand/origin/manufacturer and supplied by only manufacturer's authorised dealer with certificate of origin. The admixture for retarding setting time of concrete, there by reducing shrinkage in concrete specially for concrete laid in thick layers and intended delayed construction for improved construction joints, re-concreting etc.[PWD 07.19.2]	liter	209.00	209.00	209.00	209.00
4.12.01.03	Supply and use of accelerating chemical admixture in concrete, complying ASTM C-494 Type - C of approved brand/origin/manufacturer and supplied by only manufacturer's authorised dealer with certificate of origin. An admixture that is to accelerate the setting time and early strength gain of concrete. [PWD 07.19.3]	liter	147.00	147.00	147.00	147.00
4.12.01.04	Supply and use of water-reducing and retarding chemical admixture in concrete, complying ASTM C-494 Type - D of approved brand/origin/manufacturer and supplied by only manufacturer's authorised dealer with certificate of origin. The admixture to reduce the quantity of mixing water required to produce concrete of given consistency, i.e. low water-cement (W/C) ratio and intend to retard setting time of concrete, specially for layered, thick laid concrete etc. [PWD 07.19.4]	liter	270.00	270.00	270.00	270.00
4.12.01.05	Supply and use of water-reducing and accelerating chemical admixture in concrete, complying ASTM C-494 Type - E of approved brand/origin/manufacturer and supplied by only manufacturer's authorised dealer with certificate of origin. The admixture to reduce the quantity of mixing water required to produce concrete of given consistency, i.e. low water-cement (W/C) ratio and intend to accelerate setting time of concrete, and early strength gain in concrete etc. [PWD 07.19.5]	liter	233.00	233.00	233.00	233.00
4.12.01.06	Supply and use of water-reducing high range chemical admixture in concrete, complying ASTM C-494 Type - F of approved brand/origin/manufacturer and supplied by only manufacturer's authorised dealer with certificate of origin. The admixture required to produce concrete of consistency by 12% or greater (flowing concrete) and for higher strength of concrete. [PWD 07.19.6]	liter	270.00	270.00	270.00	270.00

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.12.01.07	Supply and use of water-reducing high range and retarding chemical admixture in concrete, complying ASTM C-494 Type - G of approved brand/origin/manufacturer and supplied by only manufacturer's authorised dealer with certificate of origin. The admixture required to produce concrete of consistency by 12% or greater (flowing concrete) and for higher strength of concrete and intend to retard setting time of concrete. [PWD 07.19.7]	liter	202.00	202.00	202.00	202.00	
4.12.02	CGC: Providing Cold Galvanizing Compound having 96% of zinc (purity is 99.99%), corrosion rate shall be less than 0.05mm per year, solid content shall not be more than 40% by volume and relative density shall not more than 2.70 gm/cc and should be complied the international test result like salt spray test, frame test, weathering test and humidity test. Shelf and drying time shall not be more than 25 minutes for the cathodic (galvanic/sacrificial) protection of all steel structure for a specified time against formation of rust and corrosion with labour, consumables, air compressor tools, plants and equipment, transportation etc. all complete as per specifications and direction of E-I-C. [This coating shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.]						
4.12.02.01	CGC30: 30 Micron Cold Galvanizing Compound for minimum 8 years protection against rust & corrosion.	sqm	2,282.73	2,272.48	2,269.88	2,267.12	
4.12.02.02	CGC40: 40 Micron Cold Galvanizing Compound for minimum 10 years protection against rust & corrosion.	sqm	3,404.14	3,393.89	3,391.29	3,388.53	
4.12.02.03	CGC40PU: 40 Micron Cold Galvanizing Compound including Polyurethane (PU) or Epoxy Polyamide (Duplex System) for minimum 10+ years protection against rust & corrosion.	sqm	4,189.12	4,178.87	4,176.27	4,173.51	
4.12.02.04	CGC60: 60 Micron Cold Galvanizing Compound for minimum 12 years protection against rust & corrosion.	sqm	4,262.01	4,251.76	4,249.16	4,246.40	
4.12.02.05	CGC60PU: 60 Micron Cold Galvanizing Compound including Polyurethane (PU) or Epoxy Polyamide (Duplex System) for minimum 13+ years protection against rust & corrosion.	sqm	4,435.13	4,424.88	4,422.28	4,419.52	
4.12.02.06	CGC80: 80 Micron Cold Galvanizing Compound for minimum 15 years protection against rust & corrosion.	sqm	4,737.21	4,726.96	4,724.35	4,721.59	
4.12.02.07	CGC80PU: 80 Micron Cold Galvanizing Compound including Polyurethane (PU) or Epoxy Polyamide (Duplex System) for minimum 15+ years protection against rust & corrosion.	sqm	5,058.21	5,047.96	5,045.36	5,042.60	
4.12.02.08	CGC80PBW: 80 Micron Cold Galvanizing Compound including Plyvinyl Butyral Wash primer (adhesion) & Copper Epoxy anti-foul 250 Micron (Triplex System) for minimum 15+ years protection against rust & corrosion.	sqm	6,286.85	6,276.60	6,274.00	6,271.24	
4.12.02.09	CGC100: 100 Micron Cold Galvanizing Compound for minimum 15+ years protection against rust & corrosion.	sqm	5,935.71	5,925.46	5,922.86	5,920.10	
4.12.02.10	CGC100PU: 100 Micron Cold Galvanizing Compound including Polyurethane (PU) or Epoxy Polyamide (Duplex System) for minimum 15+ years protection against rust & corrosion.	sqm	6,121.44	6,111.19	6,108.59	6,105.83	
4.12.02.11	CGC100PBW: 100 Micron Cold Galvanizing Compound including Plyvinyl Butyral Wash primer (adhesion) & Copper Epoxy anti-foul 250 Micron (Triplex System) for minimum 15+ years protection against rust & corrosion.	sqm	6,525.15	6,514.90	6,512.29	6,509.53	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.12.03	CCC: Supplying and spraying liquid membrane-forming water/resin based concrete curing compounds conforming to ASTM C 309/ AASHTO M 148 on freshly cast concrete or newly exposed concrete surfaces immediately after removal of shuttering or after initial moist curing at a rate of 5.0 m2/L or in accordance with the manufacturer's instructions to form a thin continuous firm barrier/ temporary membrane which will retain sufficient moisture for effective curing to take place during the early-hardening period without disturbing the normal setting action of concrete including labour, equipment, other incidental charges etc. all complete as per specification and direction of E-I-C. The curing compound shall exhibit water loss not more than 0.55 Kg/m2 in 72 hours when tested as per ASTM C 156, shall exhibit a daylight reflectance of not less than 60% when tested as per ASTM E 1347 and shall dry to touch in not more than 4 hours. [This unit rate includes 10% extra curing compound for overlaps and wastage.]	sqm	155.59	154.36	152.52	152.52	
4.12.04	CCB: Supplying concrete cover block as specified size conforming to BS 8110-1, satisfying a compressive strength fc = 35 MPa (Min.), ensuring perfect clear cover to rebar in concrete structure. The mix used for concrete cover blocks made from cement, sand, stone dust, small aggregate etc. and should be comparable in strength, durability, porosity and apprearance to the sorrounding concrete as fas as practicable. Concrete cover blocks made on the construction site should not be used. [The volumn of concrete cover blocks must be deducted from the RCC/PSC items.]						
4.12.04.01	CCB-M20/25: Concrete Cover Block with 20/25 mm clear cover facility for Slab, Stair etc. [Concrete Volumn = 0.0022 cum/100 Nos.]	nos	3.07	3.07	3.07	3.07	
4.12.04.02	CCB-M35/40: Concrete Cover Block with 35/40 mm clear cover facility for Beam, column, RCC Wall, Girder, Pier etc. [Concrete Volumn = 0.0067 cum/100 Nos.]	nos	7.98	7.98	7.98	7.98	
4.12.04.03	CCB-M45/50: Concrete Cover Block with 45/50 mm clear cover facility for Beam, Column, RCC Wall, Girder, Pier etc. [Concrete Volumn = 0.0082 cum/100 Nos.]	nos	9.82	9.82	9.82	9.82	
4.12.04.04	CCB-M60/65/75/80: Concrete Cover Block with 60/65/75/80 mm clear cover facility for Sub-structure, footing/ foundation, column, beam etc. [Concrete Volumn = 0.0186 cum/100 Nos.]	nos	15.95	15.95	15.95	15.95	
4.12.04.05	CCB-M100/110: Concrete Cover Block with 100/110 mm clear cover facility for top layer of slab reinforcement [Concrete Volumn = 0.0216 cum/100 Nos.]	nos	20.25	20.25	20.25	20.25	
4.12.04.06	CCB-C40: Concrete Cover Block with (Circular) 40 mm clear cover facility for Spiral Column, RCC Wall etc. [Concrete Volumn = 0.0155 cum/100 Nos.]	nos	13.50	13.50	13.50	13.50	
4.12.04.07	CCB-C75: Concrete Cover Block with (Circular) 75 mm clear cover facility for Piling Work [Concrete Volumn = 0.0507 cum/100 Nos.]	nos	40.49	40.49	40.49	40.49	
4.12.04.08	CCB-L40: Concrete Cover Block with (L-Shape) 40 mm clear cover facility for Beam/ Column Construction [Concrete Volumn = 0.015 cum/100 Nos.]	nos	13.50	13.50	13.50	13.50	

Item Code	Brief Description of Item		Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1 Coation 12:	2 Wearing course, Drainage Spouts, Back filling & \	3 Maan b	4	5	6	7	
4.13.01	CWC: Providing and laying wearing course on deck slab of bridge with minimum cement content ralates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average	cum	13,751.97	13,681.00	13,396.59	13,457.46	
	strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N, Coarse sand of minimum FM 2.5 and 6mm down well graded crushed stone chips broken from boulders (preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30), including breaking stone boulders into chips, screening through proper sieves, casting, finishing complete to camber and grade, compacting, curing at least for 28 days, etc. including cost and carriage of all materials, labour, water, electricity, other incidental cost etc. all complete as per design, drawing, specification & directionn of E-I-C.						
4.13.02	Supplying, fitting and fixing of Gl/uPVC Pipe with all special fittings, such as bends, elbows, sockets, reducing sockets, Tee, unions, jamnuts etc. including cutting trenches where necessary and fitting the same with earth duly rammed and fixing in walls with holder bats and making hole in floors, walls and consequent mending good the damages etc. all complete in all respects approved and accepted by the Engineer- in- charge.[PWD 26.42]						
4.13.02.01	RWDP40GI: 40mm dia GI pipe of 2.90mm wall thickness conforming to BDS 1031/ BS 1387 Light Class	m	855.24	853.27	850.33	850.33	
4.13.02.02	RWDP50GI: 50mm dia GI pipe of 2.90mm wall thickness conforming to BDS 1031/ BS 1387 Light Class	m	931.31	929.10	925.79	925.79	
4.13.02.03	62-65 mm dia G.I. pipe with wall thickness 3.25 mm, outside diameter min 71.5 mm, weight 6.15 kg/m, can withstand min 50 kg/cm2 hydraulic pressure.[PWD 26.42.7]	m	2,396.00	2,386.00	2,356.00	2,356.00	
4.13.02.04	75 -80 mm dia G.I. pipe with wall thickness 3.25 mm, outside diameter min 86.5 mm, weight 7.22 kg/m, can withstand min 50 kg/cm2 hydraulic pressure[PWD 26.42.8]	m	2,607.00	2,597.00	2,565.00	2,565.00	
4.13.02.05	100 mm dia G.I. pipe with wall thickness 3.65 mm, outside diameter min 107.3 mm, weight 10.42 kg/m, can withstand min 50 kg/cm2 hydraulic pressure[PWD 26.42.9]	m	3,721.00	3,709.00	3,671.00	3,671.00	
4.13.02.06	RWDP100GIMC: 100mm dia GI pipe of 4.05mm wall thickness conforming to BDS 1031/ BS 1387 Medium Class	m	2,508.04	2,505.34	2,501.29	2,501.29	
4.13.02.07	RWDP50PVC: 50mm uPVC Pipe of 2.5mm to 3mm wall thickness conforming to BS 3505	m	182.83	181.85	180.37	180.37	
4.13.02.08	RWDP75PVC: 75mm uPVC Pipe of 2.9mm to 3.4mm wall thickness conforming to BS 3505	m	296.94	295.84	294.18	294.18	
4.13.03	BF: Back filling behind abutments, wing walls and retaining walls with selected granular material (50:50 best quality picked brick chips & sand of min. FM 1.00) of minimum 450 mm width, in layers of 150 mm thickness free from dust, impurities etc. including compaction using plate compactor, watering & dressing, supply & cost of all materials, carrying and labour, hire charge of plate compactor and other tools etc. all complete as per direction of the Engineer-In-Charge. Payment to be made for the compacted volume only for a compaction of 90% of the maximum dry density.	cum	3,381.76	3,400.92	3,262.14	3,294.78	
4.13.04	WH: Providing weep holes in Brick masonry/ Plain/ Reinforced concrete retaining wall, abutment, wing/ return wall, with 50 - 100 mm dia uPVC pipe extending through the full width of structure with slope 1V: 20H towards draining face including hand packing of 0.85 cum pervious backfill material (40mm - 63mm sized 1st class/picked brick bats) wrapped in Geo-fabric (Grade-III-DF-40-2.3mm thick) in the back of each weep hole etc. all compete as per direction of the E-I-C.						
	[Cost of uPVC pipe, Geo-bag, brick bats, mortar etc. is included in this item and shall not be paid separately.]						
4.13.04.01	WH50: Using 50mm dia uPVC pipe	each	543.62	545.71	530.10	534.38	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.13.04.02	WH75: Using 75mm dia uPVC pipe	each	666.68	668.72	652.60	656.88	
4.13.04.03	WH100: Using 100mm dia uPVC pipe	each	855.34	857.31	840.58	844.86	
4.13.05	DS: Supplying, fitting and fixing in position galvanized drainage spouts for bridge decks made up by minimum 100mm dia. MS pipe of 4.05mm wall thickness conforming to BDS 1031/ BS 1387 Medium Class, grating formed by 262mm x 262mm top rim of 32mm X 28mm ASTM A36 complied MS rectangular bars and 4 nos. 198mm X 12mm X 25mm ASTM A36 complied MS flat bars, square shaped collection pit of 210mm X 210mm made up by 6mm thick ASTM A36 complied MS plate with necessary anchorage and fixing the grating frame by minimum 6 nos. of 10mm dia. bolts and other necessary fittings including all labour, tools, plant, equipment, machinery, leads & lifts, fuel, electric charges etc. complete in all respectas as per drawing, specifications and direction of Engineer-in-Charge. The grating has to carry a spot load of 100 kN. Drainage spouts has to be constructed in such a way so that the gratings can be temporarily fixed to protect against theft. After fabrication, the complete assembly shall be given a hot dipped galvanized coating. [600mm MS Pipe is included in this unit rate, Extra length must be added if necessary]	each	6,576.29	6,572.64	6,547.25	6,547.25	
4.13.06	DG: Supplying, fitting and fixing in position galvanized drainage grating for bridge decks made up by 200mm x 150mm outer frame of 25mm x 25mm x 6mm ASTM A 36 complied MS Angles and 4 nos. 25mm x 6mm ASTM A36 complied MS flat bars, grating fitted with 4 nos. BDS ISO 6935-2: 2016 (Grade 400) complied 12mm dia. anchor bar 100mm in length by welding and other necessary fittings including all labour, tools, plant, equipment, machinery, leads & lifts, fuel, electric charges etc. complete in all respect as per drawing, specifications and direction of Engineer-in-Charge. After fabrication, grating shall be given a hot dipped galvanized coating.	each	624.17	623.16	616.51	616.51	
4.13.07	PS: Providing cork/ polystyrene sheet in expansion joints of concrete works including supply of all materials etc. complete as per direction of E-I-C.						
4.13.07.01	PS_25: 25mm thick cork/ polystyrene sheet	sqm	291.23	288.76	285.04	285.04	
4.13.07.02	PS_20: 25mm thick cork/ polystyrene sheet	sqm	278.84	276.36	272.65	272.65	
4.13.08	Providing and fixing 150 mm PVC pipe of 6.6mm to 7.6mm wall thickness conforming to BS 3505 for longitudinal runner pipe/ under drain along soffit of deck slab including cost of all materials, labours, fixing in true line and levels, including bends and fixtures, specials, etc. complete with all leads and lifts etc. as per specification and direction of E-I-C.	m	2,427.30	2,426.02	2,419.57	2,419.57	

Item Code	Brief Description of Item	Unit		Ra	nte	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.13.09	MA: Providing and laying mastic asphalt wearing course on top of deck slab excluding prime/tack coat with 10/20 penetration grade bitumen satisfying the requirements of ASTM/AASHTO code, coarse aggregate should be crushed stone chips (LAA value <=30) complying with the specified grading requirement of the relevant item of Rural Road Design Standard - 2021, water absorption not >2%, flakiness index not > 35%, fine aggregate shall be the fraction passing the 2.36mm and retained on the 0.075mm sieve, filler shall be limestone powder passing 75 micron sieve and shall have a calcium carbonate content of not < 80%, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including hire charges of all tools, plants and machinery, wages of operational staff, cost of fuel & lubricants and all other incidental charges all complete as per design, specification and direction of Engineer-in-Charge. The contractor shall submit to the Engineer for approval at least one month before the start of the work the job mix formula proposed to be used by him for the work. [Excluding the cost of applying Prime/Tack coat] Notes: 1. Where prime/tack coat is required to be provided before laying mastic asphalt, the same is required to be measured and paid separately. The rate for prime/tack coat shall be taken from Road Works. 2. Bituminous wearing course of specified thickness shall be overlaid with this mastic asphalt (for up to 25mm thickness) and the rate for bituminous wearing course shall be taken from Road Works.					
4.13.09.01	MA_12: 12mm thick mastic asphalt wearing course	sqm	992.00	987.91	969.30	970.49
4.13.09.02	MA_25: 25mm thick mastic asphalt wearing course	sqm	1,376.25	1,372.37	1,347.82	1,350.38
4.13.09.03	MA_40: 40mm thick mastic asphalt wearing course	sqm	2,204.30	2,198.12	2,159.24	2,163.26
4.13.09.04	MA_50: 50mm thick mastic asphalt wearing course	sqm	2,740.70	2,733.16	2,685.33	2,690.35
Section-14:	Slope Protective Work, Jute & Synthetic Geo-texti	le	1			
4.14.01	Manufacturing and supplying Plain Cement Concrete (PCC) Blocks with cement conforming to BDS EN 197-1: 2003 CEM-II/A-L/MV/W 42.5N, sand of minimum FM 1.8 and 40 mm down well graded shingles to attain a minimum 28 days cylinder strength of 17.00 MPa (suggested mix proporation 1:2:4) including grading, washings shingles, mixing, laying in forms, consolidating, curing for at least 21 days, including preparation of platform, shuttering and stacking in measurable stacks, cost of all materials, labour, equiptment and machinery, work at all leads and lifts, loading and unloading, transportation and all other incidental charges etc. all complete as per drawing, specification & direction of the E-I-C. Steel shutter shall be used to perform the job. [Payment shall be done after laying of PCC Blocks]					
4.14.01.01	Size: 400 mm x 400 mm x 150 mm	each	356.29	360.61	327.07	335.91
4.14.01.02	Size: 500 mm x 500 mm x 150 mm	each	532.32	539.60	488.78	502.57
4.14.01.03	Size: 500 mm x 500 mm x 200 mm	each	726.03	735.37	666.56	684.98
4.14.01.04	Cast-in-Situ Blocks of required sizes as per drawing	cum	14,531.01	14,721.13	13,232.57	13,619.08
4.14.02	Labour charge for protective works in laying Plain Cement Concret (PCC) blocks of different sizes including preparation, watering and ramming of base, packing the residual space between masonry & other structural members like columns, beams, slabs etc., providing opening as directed and finishing neatly around the same, works at all leads and lifts, loading and unloading, transportation and all other incidental charges etc. all complete as per drawing, specification & direction of the E-I-C.	cum	1,226.90	1,201.26	1,117.58	1,117.58

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.14.03	Providing brick mattressing in bridge approaches as protective work with required layer soling of 1st class/ picked bricks encased in 12 BWG galvanised wire 100mm square mesh wire net over a 25mm thick filter bed of sand (minimum FM 2.50) & brick chips (20mm down graded) mixed with proportion 1:1 including necessary earth cutting and fitting, fixing with 750mm long bamboo peg @ 1m c/c, dressing, leveling, compacting, etc. all complete in all respect as per approved design, specification and direction of E-I-C. Rate is inclusive of cost of materials, labour, equiptment & machinery, work at all leads and lifts, loading & unloading, transportation and all incidental charges in this connection.						
4.14.03.01	Single Layer Soling of 1st Class/ picked bricks	sqm	1,182.90		1,145.92	1,145.45	
4.14.03.02	Double Layer Soling of 1st Class/ picked bricks	sqm	1,767.70	1,761.16	1,703.66	1,703.20	
4.14.04	Supplying and placing of required layers of gunny bagged Riprap filled with cement (BDS EN 197-1: 2003 CEM-II/A-L/M/V/W 42.5N) and Sand (minimum FM 1.00) mortar (1:8) along slopes of abutments, piers, banks of river/ khal including washing of sand, mixing in standard mixture machine, filled & tamping the bags in place, stitching bags by hand sewing machine, curing by sprinkling water over the bags including preparation of slope (bed) by cutting or filling with ramming the filled up earth to the same profile as that of the finished slope level, placing the filled gunny bags along the slope, etc. all complete in all respect as per approved design, specification and direction of the E-I-C. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.						
4.14.04.01	Single layer of Gunny Bagged Riprap	sqm	747.26	743.16	719.54	719.54	
4.14.04.02	Two layers of Gunny Bagged Riprap	sqm	1,438.08	1,430.98	1,388.77	1,388.77	
4.14.05	Supplying best quality sal/ sundari/ gazari/ sonali/ tetul/ Jam etc. bullah piles free from rots, knots, sap and uniform in size at work site including carrying, stacking, etc. all complete as per direction of the Engineer-in-Charge. Before any piling work is commenced the contractor shall submit to the engineer full details of the pile driving equipment and the method he intends to use in carrying out the work. Diameter of bullah pile to be measured at a distance of 1.5m from the thicker end.						
4.14.05.01	Bullah piles of 150mm to 200mm diameter	m	334.98	334.73	326.39	326.39	
4.14.05.02	Bullah piles of 200mm to 250mm diameter	m	588.97	588.73	587.75	587.75	
4.14.06	Labour for handling and driving best quality bullah piles up to required depth by monkey/ power winch in all sorts of soil including hoisting and placing piles in position, protecting the pile head with steel cap, hire charge for necessary driving appliances, cutting & shaping heads before and after driving etc. complete in all respect as per direction of the Engineer-in-Charge. Payment to be made on the length driven into the ground. Note: Water jet machine shall not be used in the pile driving process.						
4.14.06.01	Bullah piles of 150mm to 200mm diameter						
4.14.06.01.01	For driving from ground with staging	m	306.14	300.74	280.38	280.38	
4.14.06.01.02	For driving from pontoon or boats with staging	m	318.39	312.77	291.59	291.59	
4.14.06.01.03	For driving from pontoon or boats with heavy staging	m	327.57	321.80	300.00	300.00	
4.14.06.02	Bullah piles of 200mm to 250mm diameter						
4.14.06.02.01	For driving from ground with staging	m	448.48	440.38	409.83	409.83	
4.14.06.02.02	For driving from pontoon or boats with staging	m	466.42	458.00	426.22	426.22	
4.14.06.02.03	For driving from pontoon or boats with heavy staging	m	479.87	471.21	438.51	438.51	

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.14.07	Providing & Installtion of 100mm x 200mm x 8mm steel joist or any other required steel sections of 7.62m length @ 200mm c/c for Shore protection work during excavation in foundation trenches to protect the adjacent property including rent, conveyance, labour, material for cutting to required size & for driving the same upto required depth including cost of all fittings etc. complete as per direction of the E-I-C. The contractor will remove the joists after completing the work without any extra payment & the contractor will be the owner of these joists. Note: Measurement shall be based on lengths of protection work in horizontal direction.	m	30,121.54	29,966.93	29,509.56	29,509.56	
4.14.08	Supplying & dumping of soil filled geo-textile bags of different size and capacity (fill volumn and weight when filled with dry sand/earth) at the specified locations along the bottom of piles of piers/ toe line properly including supply of geo-textile fabric as per following grading, sewing in accordance with the detailed drawing and technical specifications, protecting the geo-textile bags from UV ray or any other damages, filling with suitable soil/ sand and stitching bags by hand sewing machine properly with plastic thread and dumping the same in position etc. including cost of all materials, labours, taxes, incidental charges etc. complete in all respect as per approved drawing, specification and direction of E-I-C.						
4.14.08.01	Geo-Textile Bag: Empty Size: 800mm x 650mm, Fill Volumn: 0.0520 cum & Weight: 80 Kg Geo-Textile Grade: Grade-III-DF-40-2.3mm thick	bag	246.20	245.43	242.43	242.43	
4.14.08.02	Geo-Textile Bag: Empty Bag Size: 900mm x 700mm, Fill Volumn: 0.0730 cum & Weight: 110 Kg Geo-Textile Grade: Grade-III-DF-40-2.3mm thick	bag	294.30	293.40	289.84	289.84	
4.14.08.03	Geo-Textile Bag: Empty Bag Size: 950mm x 750mm, Fill Volumn: 0.0840 cum & Weight: 125 Kg Geo-Textile Grade: Grade-III-DF-40-2.3mm thick	bag	330.86	329.83	325.74	325.74	
4.14.08.04	Geo-Textile Bag: Empty Bag Size: 1075mm x 850mm, Fill Volumn: 0.1164 cum & Weight: 175 Kg Geo-Textile Grade: Grade-V-DF-60-3.0mm thick	bag	411.67	410.51	405.86	405.86	
4.14.08.05	Geo-Textile Bag: Empty Bag Size: 1100mm x 850mm, Fill Volumn: 0.1333 cum & Weight: 200 Kg Geo-Textile Grade: Grade-V-DF-60-3.0mm thick	bag	426.85	425.56	420.39	420.39	
4.14.08.06	Geo-Textile Bag: Empty Bag Size: 1300mm x 1050mm, Fill Volumn: 0.1664 cum & Weight: 250 Kg Geo-Textile Grade: Grade-V-DF-60-3.0mm thick	bag	584.71	583.29	577.61	577.61	
4.14.09	Providing, preparing and laying of geogrid crated apron 1 m x 5 m, 600 mm thick including excavation and backfilling with baffles at 1 m interval, made with geogrids having , joining sides with connectors/ring staples, top corners to be tie tensioned, placing of suitable cross interval ties in layers of 300 mm connecting opposite side with lateral braces and tied with polymer braids to avoid bulging, filled with stone with minimum size of 200 mm and specific gravity not less than 2.65, packed with stone spalls, keyed to the foundation recess in case of sloping ground and laid over a layer of geotextile to prevent migration of fines, all as per approved design and direction of E-I-C	cum	15,894.76	16,264.34	13,940.99	14,610.95	
4.14.10	Construction of single/ double row bamboo spur, with full length borak bamboo of specified dia. & length, at 0.3m c/c, two rows at 1.5m apart (not applicable for single row spur) and stays with bamboo at 3 m apart on the D/S side of the spur, single/ double (for length > 6m) row runner with half split bamboo on both sides and also with double layer cross tie at 3.0m interval, including 2.4m to 3.0m driving of bamboo pins by monkey hammer, necessary staging etc. complete with supply of all materials including local carriage within 150m and as per drawing and direction of E-I-C.						
4.14.10.01	Single bamboo spur: dia. = 75mm, Length = 6.0m to 7.5m	m	2,575.16	2,563.86	2,518.66	2,518.66	
4.14.10.02	Double row bamboo spur: dia. = 75mm, Length = 3.0m to 4.5m	m	2,472.14	2,459.26	2,407.72	2,407.72	
4.14.10.03	Double row bamboo spur: dia. = 75mm, Length = 4.5m to 6.0m	m	4,094.45	4,070.49	3,974.63	3,974.63	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.14.10.04	Double row bamboo spur: dia. = 100mm, Length = 7.5m to 11.0m	m	6,279.03	6,252.84	6,148.06	6,148.06
4.14.11	Construction of a narrow filter sub- surface drain consisting of porous or perforated pipe laid in narrow trench surrounded by a geotextile filter fabric, with a minimum of 450 mm overlap of fabric and installed including excavation and backfilling.	m	917.33	904.44	866.43	866.43
4.14.12	JGT_RRC: Supplying and laying of woven type untreated double warp plain weave jute geo-textile (JGT) of different grades conforming to BDS 1909: 2016 for strengthening subgrade of Road & Bridge approach including local handling, unrolling, placing in position, ensuring proper drapability (JGT should touch the ISG surface at all points), stapling JGT by 6mm dia. U-shapped pegs/ hooknails or 37mm long mushroom shaped nails at an interval of 300mm with overlaps of 100mm, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-A (JGT Installation Guideline for Rural Road Construction) of BDS 1909: 2016 and approval of Engineer-In-Charge.					
4.14.12.01	JGT_RRC-1 : Applicable for Strengthening subgrade of Village Roads. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 85 x 32, Width(m) ≥ 1, Mass per unit area (gsm) = 627 ± 10%, Thickness under 2 kPa pressure (mm) = 2.0 ± 10%, AOS (O95) (µm) ≤ 450, Vertical Permeability (m/sec) ≥ 3.0 x10-3, Horizontal Permeability (m/sec) ≥ 7.0 x10-3, Grab Tensile Strength (N) MD x CD ≥ 850 x 200, Grab Tensile Elongation (%) MD x CD ≤ 30 x 35, CBR Puncture Resistance (N) ≥ 2000, Wide Width Tensile Strength (kN/m) MD x CD ≥ 20 x 10, Wide Width Elongation (%) MD x CD ≤ 12 x 10.	sqm	181.69	181.15	179.67	179.67
4.14.12.02	JGT_RRC-2 : Applicable for Strengthening subgrade of Union or Higher Roads. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 94 x 39, Width(m) ≥ 1, Mass per unit area (gsm) = 724 ± 10%, Thickness under 2 kPa pressure (mm) = $2.0 \pm 10\%$, AOS (O95) (μ m) ≤ 300, Vertical Permeability (m/sec) ≥ 2.0×10 -3, Horizontal Permeability (m/sec) ≥ 6.0×10 -3, Grab Tensile Strength (N) MD x CD ≥ 925 x 425, Grab Tensile Elongation (%) MD x CD ≤ 35×40 , CBR Puncture Resistance (N) ≥ 2150, Wide Width Tensile Strength (kN/m) MD x CD ≥ 25×10 , Wide Width Elongation (%) MD x CD ≤ 15×12 .	sqm	210.55	210.01	208.53	208.53
4.14.13	JGT_RBP: Supplying and laying of natural additive treated woven type double warp plain weave jute geo-textile (JGT) conforming to BDS 1909: 2016 for river bank and slope protection work including local handling, unrolling, placing in position, ensuring proper drapability (JGT should touch the ground surface at all points), stapling JGT by 6mm dia. U-shapped pegs/ hooknails or 37mm long mushroom shaped nails at an interval of 300mm with overlaps of 100mm, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-B (JGT Installation Guideline for River Bank Protection) of BDS 1909: 2016 and approval of Engineer-In-Charge.					
4.14.13.01	JGT_RBP-1: Applicable for mild to moderate River Bank Protection work. This type of treated JGT shall have the following requirements. Ends x Picks /dm ≥ 85 x 32, Width(m) ≥ 1, Mass per unit area (gsm) = 627 ± 15%, Thickness under 2 kPa pressure (mm) = 2.0 ± 20%, AOS (O95) (µm) ≤ 150, Vertical Permeability (m/sec) ≥ 1.0 x10-3, Horizontal Permeability (m/sec) ≥ 6.0 x10-3, Grab Tensile Strength (N) MD x CD ≥ 950 x 230, Grab Tensile Elongation (%) MD x CD ≤ 35 x 45, CBR Puncture Resistance (N) ≥ 2500, Wide Width Tensile Strength (KN/m) MD x CD ≥ 20 x 10, Wide Width Elongation (%) MD x CD ≤ 12 x 10.	sqm	245.83	245.29	243.80	243.80

Item Code	Brief Description of Item		Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.14.14	JGT-HSM: Supplying and laying of open mesh Plain Weave jute geotextile (JGT) commonly known as Soil Saver of different grades conforming to BDS 1909: 2016 for Hill Slope Management work including local handling, unrolling, placing in position, unrolling of JGT in the direction of surface run-off, stapling JGT by 6mm dia. Ushapped hooknails at an interval of 300mm with overlaps of 100mm at the sides and 150mm at the ends, anchoring JGT within a trench at the two ends by filling the trench with big bats/gravel or other suitable materials, ensuring proper drapability (JGT must touch the ground surface at all points), filling drain materials immediately after laying of JGT, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-C (JGT Installation Guideline for Hill Slope Management) of BDS 1909: 2016 and approval of Engineer-In-Charge.					
4.14.14.01	JGT_HSM-1: Applicable for Moderate slope (≤35 degree) & annual rainfall ≤ 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 6.5 x 4.5, Width(m) = 1.22, Mass per unit area (gsm) = 500 \pm 10%, Thickness under 2 kPa pressure (mm) = 4.5 \pm 10%, Water Holding Capacity (% by weight) ≥ 400, Wide Width Tensile Strength (kN/m) MD x CD ≥ 6.5 x 6.0, Wide Width Elongation (%) MD x CD ≤ 14.0 x 14.0.	sqm	69.45	68.91	67.42	67.42
4.14.14.02	JGT_HSM-2: Applicable for Moderate slope (≤35 degree) & annual rainfall ≥ 2000mm and steep stope (>35 degree to ≤ 45 degree) & annual rainfall ≤ 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 8 x 7, Width(m) = 1.22, Mass per unit area (gsm) = $600\pm10\%$, Thickness under 2 kPa pressure (mm) = $5.5\pm10\%$, Water Holding Capacity (% by weight) ≥ 400, Wide Width Tensile Strength (kN/m) MD x CD ≥ 12.0 x 6.0, Wide Width Elongation (%) MD x CD ≤ 14.0 x 14.0.	sqm	74.26	73.72	72.23	72.23
4.14.14.03	JGT_HSM-3: Applicable for steep stope (>35 degree to ≤ 45 degree) & annual rainfall > 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 8 x 8, Width(m) = 1.22, Mass per unit area (gsm) = $700\pm10\%$, Thickness under 2 kPa pressure (mm) = $5.5\pm10\%$, Water Holding Capacity (% by weight) ≥ 400, Wide Width Tensile Strength (kN/m) MD x CD ≥ 14.0 x 7.0, Wide Width Elongation (%) MD x CD ≤ 14.0 x 14.0.	sqm	79.07	78.53	77.04	77.04
4.14.15	Arrangement of necessary construction materials at work site including, carrying, stacking, handling etc. all complete as per direction of the E-I-C.					
4.14.15.01	MS pipe of 100mm diameter & 4mm wall thickness					
4.14.15.01.01	For permanent use, cost of MS pipe is included in this unit rate.	m	1,842.38	1,842.38	1,842.38	1,842.38
4.14.15.01.02	For temporary use, rent of MS pipe is included in this unit rate.(all hiring charge & maintaining the same till the completion of the work.)	m	57.98	57.98	57.98	57.98
4.14.15.02	MS pipe of 150mm diameter & 4mm wall thickness					
4.14.15.02.01	For permanent use, cost of MS pipe is included in this unit rate.	m	3,285.36	·	3,285.36	3,285.36
4.14.15.02.02	For temporary use, rent of MS pipe is included in this unit rate.(all hiring charge & maintaining the same till the completion of the work.)	m	83.74	83.74	83.74	83.74
4.14.15.03	MS pipe of 200mm diameter & 6.5mm wall thickness		10.1			
4.14.15.03.01	For permanent use, cost of MS pipe is included in this unit rate.	m	4,974.43			4,974.43
4.14.15.03.02	For temporary use, rent of MS pipe is included in this unit rate. (all hiring charge & maintaining the same till the completion of the work.)	m	148.16	148.16	148.16	148.16
4.14.15.04	MS pipe of 300mm diameter & 10 mm wall thickness		20-41-	0.054.15	0.054.65	0.054 :5
4.14.15.04.01	For permanent use, cost of M S pipe is included in this unit Rate	m	9,254.42	· ·	9,254.42	9,254.42
4.14.15.04.02	For temporary use, rent of MS pipe is included in this unit rate.(all hiring charge & maintaining the same till the completion of the work.)	m	541.12	541.12	541.12	541.12

Item Code	Brief Description of Item	Unit	Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.14.15.05	Supplying best quality of MS angle, Plate, Nut Bolt, Stifinner, I-Beam at work site including, carrying, stacking, handling etc. all complete as per direction of the E-I-C.etc						
4.14.15.05.01	For permanent use, cost of MS angle, Plate, Nut Bolt, Stiffinner, I-Beamt etc	kg	100.75	100.75	100.75	100.75	
4.14.15.05.02	For temporary use, rent of MS angle,Plate,Nut Bolt, Stifinner, I-Beam etc is included in this unit rate.(all hiring charge & maintaining the same till the completion of the work.	kg	25.40	25.40	25.40	25.40	
4.14.15.06	Labour cost for fitting, fixing, erection, removing and welding of MS angle, Plate, Nut Bolt, Stifinner, I-Beam of Steel structure etc.	kg	83.74	83.74	83.74	83.74	
4.14.15.07	Supplying best quality Wooden Plank,Btten ctc (Jarul & Local Shal wood) at work site including, carrying, stacking, handling etc. all complete as per direction of the E-I-C.						
4.14.15.07.01	For permanent use, cost of Wood is included in this unit Rate	cum	103,317.16	98,830.32	105,247.96	105,247.96	
4.14.15.07.02	For Temporary use, Rent of Wood is included in this unit Rate (all hiring charge & maintaining the same till the completion of the work.)	cum	20,188.46	20,188.46	19,877.10	19,877.10	
4.14.16	Labour for driving MS steel pipes of any size up to required depth with monkey, power winch etc. including all necessary tools, equipment and accessories and hoisting piles in true & vertical position etc. all complete as per direction of E-I-C.	m	440.95	437.08	424.84	424.84	
4.14.17	Labour for extraction of MS steel/ micro pipes of any size with monkey, power winch etc. including all necessary tools, equipment and accessories all complete as per direction of E-I-C.	m	353.34	349.47	337.23	337.23	
4.14.18	Labour charge for taking out bullah from river bed (measurement for the driven portion to be taken only); or cross ties walling pieces, including cutting and opening out bolts and nuts; or old bamboo pieces and struts from river bed and stacking the materials on the bank as per direction of E-I-C.						
4.14.18.01	Bullah	m	67.32	66.09	61.20	61.20	
4.14.18.02	Cross ties walling pieces	m	17.72	17.39	16.10	16.10	
4.14.18.03	Old bamboo pieces and struts	m	14.17	13.91	12.88	12.88	
Section-15:	Railing, Painting & Other Bridge Appurtenances	l					
4.15.01	Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.10 m below ground/road level, all steel parts and fittings to be galvanised by hot dip process (zinc coated, 550 gsm, minimum single spot), all fittings to conform to AASHTO M 180, metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long etc. all complete as per specification & direction of the Engineer in charge.	m	7,859.53	7,852.71	7,832.95	7,832.95	
4.15.02	Providing and erecting a "Thrie" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal rail, 70 cm above road/ground level, fixed on channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process (zinc coated, 550 gsm, minimum single spot), all fitting to conform to AASHTO M	m	9,938.85	9,932.58	9,914.40	9,914.40	
	180, metal rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 546 mm long etc. all complete as per specification & direction of the E-I-C.						
4.15.03	channel section 150 x 75 x 5 mm, 546 mm long etc. all complete as						
4.15.03 4.15.03.01	channel section 150 x 75 x 5 mm, 546 mm long etc. all complete as per specification & direction of the E-I-C. Supplying fitting and fixing railing & rail post made of various dia MS pipes of standard thickness for normal, ornamental Bridge or any other structure including required ms plate, nutbolt, cutting, welding, painting with anticorrosive paint, laying in position etc. all complete	m	953.25	948.65	941.74	941.74	
	channel section 150 x 75 x 5 mm, 546 mm long etc. all complete as per specification & direction of the E-I-C. Supplying fitting and fixing railing & rail post made of various dia MS pipes of standard thickness for normal, ornamental Bridge or any other structure including required ms plate, nutbolt, cutting, welding, painting with anticorrosive paint, laying in position etc. all complete as per design, drawing, spacification & the direction of the E-I-C.	m m	953.25 1,454.03		941.74 1,442.52	941.74 1,442.52	

Item Code	Brief Description of Item		Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.15.03.04	150mm dia. and wall thickness 4mm	m	4,049.19	4,044.59	4,037.69	4,037.69	
4.15.03.05	200mm dia. and wall thickness 6.5mm	m	6,059.98	6,055.38	6,048.48	6,048.48	
4.15.04	Supplying fitting and fixing railing & rail post made of various size MS Square Box of standard thickness for normal & ornamental Bridge or any other structure, including required ms plate, nut-bolt, cutting, welding, painting with anticorrosive paint, laying in position, etc. all complete as per design, drawing, spacification & the direction of the E-I-C.						
4.15.04.01	Size: 25mm x 25mm MS box and wall thickness 4mm	m	728.55	723.95	717.04	717.04	
4.15.04.02	Size: 40mm x 40mm MS box and wall thickness 4mm	m	939.44	934.84	927.94	927.94	
4.15.04.03	Size: 50mm x 50mm MS box and wall thickness 6mm	m	1,605.87	1,601.27	1,594.37	1,594.37	
4.15.04.04	Size: 62.5mm x 62.5mm MS box and wall thickness 6mm	m	1,909.56	1,904.96	1,898.06	1,898.06	
4.15.04.05	Size: 75mm x 75mm MS box and wall thickness 8mm	m	3,039.96	3,035.36	3,028.46	3,028.46	
4.15.04.06	Size: 100mm x 100mm MS box and wall thickness 8mm	m	3,891.98	3,887.38	3,880.47	3,880.47	
4.15.04.07	Size: 125mm x 125mm MS box and wall thickness 8mm	m	4,777.74	4,773.14	4,766.23	4,766.23	
4.15.04.08	Size: 125mm x 125mm MS box and wall thickness 10mm	m	5,790.03	5,785.43	5,778.53	5,778.53	
4.15.04.09	Size: 150mm x 150mm MS box and wall thickness 8mm	m	5,570.70	5,566.10	5,559.20	5,559.20	
4.15.04.10	Size: 150mm x 150mm MS box and wall thickness 10mm	m	6,802.33	6,797.73	6,790.83	6,790.83	
4.15.05	Supplying & providing flexible and acrylic type reflectorized traffic painting/ coating on rail post, rail bar, wheel guard, Pier column etc. including surface preparation, applying paint, all materials, labour charges, tools, equipment etc. all complete as per specification & direction of the E-l-C.	sqm	662.15	664.85	648.28	648.28	
4.15.06	Lighting on Bridges: Supplying and Installation of mild steel hollow bent light pole of overall length 8.9m having 150mm dia. at bottom & 75mm dia. at top & wall thickness 4mm with base plate 275 x 275x 16mm thick, providing 32mm dia MS/GI pipe for incoming and outgoing cable connection to jucntion box, 20m apart and fitted with pole light fitting, sodium vapour lamp, circuit breaker, bending of steel poles, two coats of silver white aluminium paint over steel pole, steel reducers for changing diameter from 150mm to 75mm, scaffolding, holes at top of the pole for fixing ring type GI braket/ pole light fitting, suitable precautions for ensuring prevention of water ingress etc. all complete in all respect as per design, specification and direction of E-I-C. The cost of pole light fitting, sodium vapour lamp, circuit breaker and cable is not included in this unit rate. Note: Length of pole: 8.9m (Straight portion = 4m of 150mm dia. & bent portion = 4.9m of 75mm dia.)	each	24,972.47	24,965.59	24,939.62	24,939.62	
4.15.07	Lighting on Bridge Approaches: Supplying and Installation of mild steel hollow bent light pole of specifiedlength having 150mm dia. at bottom & 75mm dia. at top & wall thickness 4mm with base plate 275 x 275 x 16mm thick, providing 32mm dia MS/GI pipe for incoming and outgoing cable connection to jucntion box, 20m apart and fitted with pole light fitting, sodium vapour lamp, circuit breaker, bending of steel poles, two coats of silver white aluminium paint over steel pole, steel reducers for changing diameter from 150mm to 75mm, laying 500 x 500 x 1200 mm cement concrete block in the ratio 1:3:6 and block be continued up to 300mm above the ground level i.e. 900mm below ground level including excavation, centering, shuttering and refilling, providing props for pole, holes at top of the pole for fixing ring type GI braket/ pole light fitting etc. all complete in all respect as per design, specification and direction of E-I-C. The cost of pole light fitting, sodium vapour lamp, circuit breaker and cable is not included in this unit rate.						
4.15.07.01	Pole with double arm if fixed in the median Note: Length of pole: 12.9m (Straight portion = 5.0m of 150mm dia. & bent portion on both sides = 7.9m of 75mm dia.)	each	33,084.19	33,075.43	33,042.74	33,042.74	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.15.07.02	Pole with single arm if fixed on the footpath Note: Length of pole: 9.9m (Straight portion = 5.0m of 150mm dia. & bent portion = 4.9m of 75mm dia.)	each	29,057.28	29,048.51	29,015.82	29,015.82	
4.15.08	Construction of pre-cast/ Cast-in-situ RCC Railing of 25 Mpa strength having aggregate size not exceeding 12mm, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 1500mm, leaving adequate space between vertical post for expansion, complete as per Guideline for Bridge Design of LGED, September 2018, approved drawings, technical specification and approval of E-I-C. The cost of reinforcement and it's fabrication, binding, welding and placing is included in this unit rate.						
4.15.08.01	Pre-cast RCC Railing of 25 MPa concrete	m	4,676.75	4,669.03	4,567.60	4,587.84	
4.15.08.02	Cast-in-Situ RCC Railing of 25 MPa concrete	m	4,245.65	4,238.77	4,151.65	4,168.73	
4.15.09	Supplying fitting and fixing railing & rail post made of various dia Stainless Steel (SS) pipes of standard thickness for normal, ornamental Bridge or any other structure including required SS plate, nutbolt, cutting, welding, laying in position etc. all complete as per design, drawing, spacification & the direction of the Engineer in charge.						
4.15.09.01	25mm dia. and wall thickness 2.00mm	m	686.37	681.77	674.86	674.86	
4.15.09.02	38mm dia. and wall thickness 2.5mm	m	1,335.93	1,331.32	1,324.42	1,324.42	
4.15.09.03	50mm dia. and wall thickness 2.50mm	m	1,757.72	1,753.11	1,746.21	1,746.21	
4.15.09.04	62.50mm dia. and wall thickness 3.00mm	m	2,584.43	2,579.82	2,572.92	2,572.92	
4.15.09.05	75mm dia. and wall thickness 3.00mm	m	3,006.22	3,001.61	2,994.71	2,994.71	
4.15.09.06	100mm dia. and wall thickness 3.00mm	m	4,271.59	4,266.99	4,260.08	4,260.08	
4.15.09.07	125mm dia. and wall thickness 3.00mm	m	5,536.96	5,532.36	5,525.46	5,525.46	
4.15.10	Supplying fitting and fixing railing & rail post made of various size Stainless Steel (SS) Square/Rectangular Box of standard thickness for normal & ornamental Bridge or any other structure, including required SS plate, nutbolt, cutting, welding, laying in position, etc. all complete as per design, drawing, spacification & the direction of the Engineer in charge.						
4.15.10.01	Size: 25mm x 25mm Stainless Steel box and wall thickness 2.00mm	m	1,099.72	1,095.12	1,088.22	1,088.22	
4.15.10.02	Size: 32mm x 32mm Stainless Steel box and wall thickness 1.50mm	m	1,074.42	1,069.81	1,062.91	1,062.91	
4.15.10.03	Size: 38mm x 38mm Stainless Steel box and wall thickness 2.50mm	m	1,681.79	1,677.19	1,670.29	1,670.29	
4.15.10.04	Size: 50mm x 50mm Stainless Steel box and wall thickness 2.00mm	m	2,078.28	2,073.68	2,066.77	2,066.77	
4.15.10.05	Size: 62.5mm x 62.5mm Stainless Steel box and wall thickness 2.00mm	m	2,660.35	2,655.75	2,648.84	2,648.84	
4.15.10.06	Size: 50mm x 25mm Stainless Steel box and wall thickness 1.50mm	m	1,285.31	1,280.71	1,273.81	1,273.81	
4.15.10.07	Size: 75mm x 25mm Stainless Steel box and wall thickness 1.50mm	m	1,673.36	1,668.76	1,661.85	1,661.85	
4.15.10.08	Size: 75mm x 50mm Stainless Steel box and wall thickness 2.00mm	m	2,508.50	2,503.90	2,497.00	2,497.00	
4.15.10.09	Size: 100mm x 50mm Stainless Steel box and wall thickness 2.00mm	m	3,115.88	3,111.28	3,104.38	3,104.38	
4.15.11	Painting on Concrete Surface: Providing and applying 2 coats of water based cement paint of approved quality to unplastered concrete surface after cleaning, washing, brushing and sand/grit blasting the surface of dirt, dust, oil, grease, efflorescence and applying paint @ 1 litre for 2 sqm including cost of all materials, labour, transportation, scaffolding etc. complete as per specifications and direction of the E-I-C. Paint shall be got approved from the E-I-C and tested from approved laboratory.	sqm	88.28	87.36	85.16	85.16	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.15.12	MS Railing: Providing, fitting and fixing in position mild steel railing over RCC crash barrier including support angle/ fixtures as per detailed drawings, specifications and direction of E-I-C. Cost of material for painting one shop coat with red oxide primer and 3 costs of synthetic enamal paint & consumables to safeguard against weathering and corrosion is included in this unit rate.						
4.15.12.01	MSR100MC: 100mm dia MS pipe of 4.50mm wall thickness conforming to BDS 1031/ BS 1387 Medium Class specifications.	m	3,755.60	3,742.48	3,707.81	3,707.81	
4.15.14	RS: Supplying, fitting and fixing of Reflecting Studs of minimum 115mm x 81mm x17mm of approved brand and colour, including cleaning and washing the railing surface, drilling to accept concrete nail, application of epoxy adhesive/ putty and necessary scaffolding, etc. including carriage and fixing, etc. all complete in all respect as per approved drawing, specification and direction of Engineer-incharge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	each	1,128.34	1,126.76	1,124.39	1,124.39	
4.15.15	FMM: Supply and fixing of Flexible Median Markers (FMM) made of tough high impact resistance injection moulded thermoplastic body of standard size and thickness with fluorocent yellow colour type XI retroreflective sheeting fixed on both sides, fixed with epoxy adhesive and grouting to the surface complete in all respect as per national accrediation institution and the direction of the E-I-C.	each	516.50	515.72	513.28	513.28	
4.15.16	Bollard: Supplying, fitting and fitting Bollard in exact positions as per drawing, specificatons and direction of the E-I-C including cost of all materials, labour, carrying etc. [This fender shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.]	kg	189.68	189.64	189.47	189.47	
4.15.17	Rubber Fender: Supplying, and installation of Rubber Fender of specified size in exact positions as per drawing, specificatons and direction of the E-I-C including cost of all materials, labour, machines, transportation etc. [This fender shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.]						
4.15.17.01	RF-D: D-Type Rubber Fender of Length = 1000mm, Width = 300mm and Height = 300mm	each	73,186.47	73,177.04	73,147.17	73,147.17	
4.15.17.02	RF-Arc: Arc Type Rubber Fender						
4.15.17.02.01	RF-Arc-1: Length = 1580mm, Width = 1400mm and Height = 840mm	each	486,954.03	486,946.49	486,922.59	486,922.59	
4.15.17.02.02	RF-Arc-2: Length = 1000mm, Width = 606mm and Height = 400mm	each	361,183.76	361,176.22	361,152.32	361,152.32	
4.15.17.03	RF-Wing: Wing Type Rubber Fender of Length = 1000mm, Width = 600mm and Height = 300mm	each	94,192.27	94,184.72	94,160.83	94,160.83	
Section-16:	Repair & Rehabilitation						
4.16.01	Lifting of Super-Structure of Bridge for resetting if required/ refixing of new bearing including removal of old bearings and including all higher and runing expenses of all plants, jacks, machines and equipment, temporary supports, required for keeping the super-structure in lifted position for completing the operation, lowering of super-structure on bearings and without causing any detrimental effect to any part of the bridge structure, diversion of traffic if necessary etc. all complete as per design, drawing, specification & direction of E-I-C. The cost of replaced bearings has not been included in this rate. The work entails replacement of all the bearings on one side of the span.						
4.16.01.01	Span up to 20 m	per end	6,368.27	6,294.65	6,036.97	6,036.97	
4.16.01.02	Span beyond 20 m and upto 30 m	per end	7,178.11	7,104.49	6,846.81	6,846.81	
4.16.01.03	Span beyond 30 m	per end	10,417.46	10,343.84	10,086.16	10,086.16	

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.16.02	Removal of existing cement concrete/ bituminous wearing course over existing bridge deck including its disposal as per direction of E-I-C without causing any detrimental effect to any part of the bridge structure and removal of dismantled material with all lifts and lead upto 1 km. The dismantled materials must be dumped in an unobjectionable place outside the site premises with minimum traffic disruption and the procuring entity will not be responsible for any irregularities by the party regarding dumping of the materials.					
4.16.02.01	Cement concrete wearing course of avg. 75mm thick	sqm	802.23	794.87	768.49	768.49
4.16.02.02	Bituminous wearing course of avg. 50mm thick asphaltic concrete laid over 12 mm thick mastic asphalt	sqm	734.74	728.61	707.14	707.14
4.16.03	Sealing of cracks/ porous concrete by injecting grout through nipples including cleaning the affected area by wire brush, compressed air, 15mm dia and 150 to 200mm deep holes along the length of the cracks at a spacing of 500mm may be drilled by wet drilling using rotary percussion drills and nipples, inerterd in these holes. Only nonshrink grout admixture conforming to ASTM C 1107 has been included in this unit rate. Where necessary and approved by the Engineer, admixutures to protland cement grout mixtures may be added for delaying the setting time, increasing flow ability, minimising segregation and shrinkage, not being added to the analysis.					
4.16.03.01	Cement Grout	kg	337.51	330.15	309.90	309.90
4.16.03.02	Cement Mortar (1:1) Grout	kg	348.19	341.10	320.49	320.49
4.16.04	Sealing of cracks/ porous concrete by injection of epoxy resin through nipples including cleaning the affected surfaces adjacent to cracks or other areas of application from dirt, grease, oil efflorescence or other foreign matter by brushing/ water jetting/ sand blasting. Just before use, the two components i.e. resin and hardeer, shall be thoroughly mixed in the ratios specified by the manufacturer. Acids and corrosives shall not be permitted for cleaning. Epoxy adhesive injection shall be performed until crakcs are complely filled. The Contractor shall furnish detailed methodology of construction including source of supply of material, tools, equipment and appliances to be used on work, details of personel and supervision and take approval from Design Unit, LGED.	kg	1,203.71	1,196.35	1,176.11	1,176.11
4.16.05	Shotcrete/ guniting concrete surface with 40mm thick (avg.) cement mortar comprising of cement, graded sand conforming to ASTM C 33, coarse aggregate (20 to 40% of total aggregate for thick sections if adequate guniting equptment is available), water and quick setting compound conforming to ASTM C 1141 in the proportion as per guidence of Central Quality Control Laboratory (CQCL), LGED or any approved laboratory instructed by Engineer-in-Charge, water cement ratio ranging from 0.35 to 0.5, density of shotcrete/ gunite not less than 2000kg/cum, strength not less than 25 MPa, applied with compressed air under pressure after cleaning removing old guniting/ part of defective concrete, cleaning the surface and exposed reinforcement thoroughly by sand blasting, spraying with epoxy conforming to ASTM C 881 @ 67 kg/sqm including cost of wire mesh fabrics 50mm x 50mm x 10 BWG in first layer of guniting complete as per drawings & direction of E-I-C. Wherever the reinforcement have been corroded, the same shall be removed and replaced by additional reinforcement.	sqm	2,092.51	2,083.42	2,063.13	2,062.04
4.16.06	Patching of damaged concrete surface with 25mm thick (avg.) polymer concrete and curing compounds, initiator and promoter, available in present formulations, to be applied as per instructions of manufacturer and as approved by the E-I-C. This item is a proprietory item available in market as pre-packed polymer concrete and is required to be applied as per instructions of the manufacturer.	sqm	12,803.09	12,799.41	12,789.47	12,789.47

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.16.07	Providing and applying 10mm thick (avg.) pre-packed cement based polymer mortar of strength 45 MPa at 28 days by trowels & float over the spalled concrete for bridge deck, pier cap etc. including scaffolding, shuttering, supplying required material including polymer etc. complete as per the specification & as directed by E-I-C. Primer coat by Nylon brush must be applied on the spalled out concrete location before applying polymer mortar.					
4.16.07.01	Average Thickness = 10mm thick	sqm	5,535.04	5,524.73	5,489.95	5,489.95
4.16.07.02	Average Thickness = 25mm thick	sqm	12,673.94	12,661.06	12,619.19	12,619.19
4.16.08	EBA: Providing & applying epoxy bonding agent conforming to ASTM C 881/ AASHTO M 235 to exposed old concrete surfaces for bonding of freshly mixed concrete to hardened concrete at the rate of 0.80 Kg/sqm or as per manufacturer's recommendation with pot life not less than 60-90 minutes at normal temperature including cost of materials, storage, labour, tools, lead lifts, preparation of surface, cleaning the surface, tackles etc. complete as per manufacturer's specification and as directed & instructed by Engineer-In-charge.	sqm	1,242.04	1,235.66	1,211.73	1,211.73
4.16.09	Applying epoxy mortar over leached, honey combed and spalled concrete surface and exposed steel reinforcement complete as per direction of E-I-C. Thickness of epoxy mortar shall not be less than 10mm	sqm	950.34	943.90	919.74	919.74
4.16.10	Replacement of Expansion Joints including removal and replacement of 300 mm wide portion of a existing deck slab to accommodate expansion joint, cleaning by blower, fabrication of additional reinforcement (if required), applying epoxy bonding agent for old to new concrete conforming to ASTM C 881, concreting with 35 MPa concrete after fixing the expansion joint complete as per manufacture specifications & direction of E-I-C. The cost of admixture & epoxy required for this work has been included in this analysis. The rate for the installation of new exapansion joints may be taken from the chapter 11 on Bridge Works.	m	4,358.33	4,334.05	4,090.84	4,121.46
4.16.11	Clearing slab/ box/ pipe culverts including cleaning and reshapping of both upstream and down stream faces of existing culvert with in right of way by removing deposited debris, silt, soil and any other foreign material. The job includes safe disposal of excess material recovered from site including vegetation outside ROW with all leads and lifts complete in all respect as per direction of Engineer In-Charge. Frequency of cleaning will be one time in a year i.e. before start of monsoon.	cum	208.80	205.80	195.92	195.92
4.16.12	Carrying out proper cleaning of carriageways, footpaths, verges, expansion joints (for free movement), drainage spouts of bridge including removal and disposal of trash, plastic, vegetation etc. from site outside ROW complete as per direction of E-I-C. Frequency of cleaning will be two times in a year i.e. before and after the monsoon.	rm	36.07	35.30	32.85	32.85
4.16.13	Replacement of Damaged RCC Railing of 25 MPa strength having aggregate size not exceeding 12mm, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 1500mm, leaving adequate space between vertical post for expansion, complete as per Bridge Design Guideline For LGED 2018, approved drawings, technical specification and approval of E-I-C. The cost of reinforcement and it's fabrication, binding, welding and placing is included in this unit rate.	m	4,781.86	4,768.36	4,655.96	4,673.04
4.16.14	Carrying out repair of RCC railing of 25 MPa concrete to bring it to the original shape including dismantling and trimming the surface to a regular shape and removal of damaged material as per Bridge Design Standard for LGED, 2012 and direction of E-I-C. [Note: It is assumed that damage is to the extent of 10%]	m	335.95	335.27	326.33	328.16

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1	2	3	4	5	6	7	
4.16.15	Micro Concrete Work: Providing and laying in position Micro concrete having minimum compressive strength 50 MPa after 28 days (as per ASTM C 109), tensile strength 2 MPa after 28 days (as per ASTM C 307) and flexular strength 5 MPa after 28 days (as per ASTM C 580), cement based prepacked single component, chloride free, non shrink, free flow, self compacting, ready to use after mixing water in specified proportion obtained from approved manufacture including water tight shuttering and scaffolding etc. complete as per specification and as per direction of Engineer-in-charge.	cum	146,487.78	146,433.62	145,491.08	145,667.70	
4.16.16	Chemically Bonded Anchor: Providing and fixing reinforcing bars by drilling holes up to specified depth and fixing required diameter anchor rods at every specified spacing on the surfaces of the slabs, columns, beams as the case may be, clean the same using water and make sure that there are no fine particles present in the hole, mix the base and hardener of the polyester resin with the spatula thoroughly, fill the drilled and cleaned holes to a maximum depth of 2/3rd of the hole with the prepared polyester resin, make sure that the resin has reached till the end of the hole. At this stage push the shear connector gently in to the hole and finish the excess resin which comes out of the hole and allow the shear connectors not to be disturbed for minimum 20 minutes, complete in all respect and direction of E-I-C. The cost of reinforcement is not included in this unit rate.						
4.16.16.01	CBA_8: Diameter of Rebar = 8mm, minimum drilling diameter = 14mm, minimum drilling depth = 80mm	each	83.46	83.12	81.75	81.75	
4.16.16.02	CBA_10: Diameter of Rebar = 10mm, minimum drilling diameter = 14mm, minimum drilling depth = 90mm	each	142.69	142.11	139.78	139.78	
4.16.16.03	CBA_12: Diameter of Rebar = 12mm, minimum drilling diameter = 16mm, minimum drilling depth = 110mm	each	199.70	198.88	195.61	195.61	
4.16.16.04	CBA_16: Diameter of Rebar = 16mm, minimum drilling diameter = 20mm, minimum drilling depth = 125mm	each	277.53	276.40	271.86	271.86	
4.16.16.05	CBA_20: Diameter of Rebar = 20mm, minimum drilling diameter = 25mm, minimum drilling depth = 170mm	each	624.31	621.76	611.53	611.53	
4.16.16.06	CBA_25: Diameter of Rebar = 25mm, minimum drilling diameter = 32mm, minimum drilling depth = 250mm	each	1,664.50	1,657.68	1,630.42	1,630.42	
4.16.16.07	CBA_32: Diameter of Rebar = 32mm, minimum drilling diameter = 40mm, minimum drilling depth = 300mm	each	2,497.06	2,486.84	2,445.93	2,445.93	
4.16.17	EP: Providing external prestressing with high tensile steel wires/strands including drilling for passage of prestessing steel, all accessories for stressing and stressing operation and grouting complete as per drawing and Technical specification. [This item shall be selected as per instruction given in the drawing & after getting approval from Desing Unit, LGED.]						
4.16.17.01	EP_25m: Span assumed: 25 m (12.7mm dia. Strand in 12T13/12K13 system. Weight-9.42 kg/m of cable.)	MT	547,363.65	547,035.30	545,549.62	545,549.62	
4.16.17.02	EP_50m: Span assumed: 50 m (12.7mm dia. Strand in 19T13/19K13 system. Weight-14.73 kg/m of cable.)	MT	1,660,713.10	1,659,859.09	1,656,198.63	1,656,198.63	
4.16.18	Rust Removal: Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.						
4.16.18.01	RR_12: Bars up to 12 mm diameter	m	10.86	10.84	10.63	10.63	
4.16.18.02	RR_12+: Bars above 12 mm diameter	m	21.67	21.62	21.21	21.21	

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1	2	3	4	5	6	7	
4.16.19	SC: Providing and Appying average 1mm thick pre-packed Polymer modified cement based skim-coat for filling blowholes, non-structural honeycomb and rectifying other surface imperfections in newly placed concrete surfaces and achieving a smooth finish on precast, cast in place, tilt up or other unfinished concrete surfaces; including cleaning the surface thoroughly using stiff brush to remove dust, loose particles, oil etc., neutralizing the surface by applying potable water, ensuring saturated surface dry (SSD) condition of the concrete surface, mixing powder with potable water in a drum by blending machine, spreading the mixture to any concrete surface using trowel to get smooth suface etc. all complete as per specification and direction of E-I-C. This is avilable in market as prepacked and is required to be applied as per instruction of the manufacturer. Proper curing method should be applied for at least 3 days, all complete as per specification and direction of E-I-C.	sqm	1,396.60	1,396.60	1,377.28	1,377.28	
4.16.20	CFL: Supply and installation of ready to use Carbon Fiber Laminates for strenghtening reinforced concrete structures having density ≥ 1.61 gm/cm3, width = 100mm, thickness ≥ 1.2mm, modulus of Elasticity ≥ 165 GPa, tensile strength ≥ 2800 MPa, elongation at break ≥ 1.4%; including surface preparation by application of grinding work, patch mortar, primer and epoxy putty etc. all complete as per specification and direction of E-I-C. Note: The work have to be done by certified/trained applicator.	m	16,797.29	16,750.35	16,612.68	16,612.68	
4.16.21	CFFS: Supply and installation of Carbon Fibre Fabric Sheets having modulus of elasticity (GPa) ≥ 230 , tensile strength (GPa) ≥ 4.9 , weight of carbon fibre (gsm) ≥ 200 , density (g/cm3) ≥ 1.8 , design cross section thickness (mm) ≥ 0.111 , elongation at break (%) ≥ 2.1 ; including surface preparation by application of grinding work, patch mortar, primer and epoxy putty etc. all complete as per specification and direction of E-I-C. Note: The work have to be done by certified/trained applicator.	sqm	13,214.54	13,204.53	13,170.77	13,170.77	
4.16.22	LDSS: Providing, fixing and operating Light-Duty Suspended Scaffolding system for repair/ rehabilitation/ retrofitting work made with M.S. Pipe, M.S. clamps, M.S. Chain, M. S. staircase having at least 1.5m wide working platform, adjusted to the required level anytime, hanged or suspended using ropes, chains or any other non-rigid, overhead support and maintaining it in a serviceable condition for the required duration. The Contractor shall take necessary safety measures for the arrangement of suspended scoffolding system and responsible for all obligations. The scaffolding system must be completely shifted on completion of the main component of the structure.						
4.16.22.01	LDSS≤10m: for width of Bridge ≤ 10m.	each/mo nth	139,229.31	138,217.01	135,180.12	135,180.12	
4.16.22.02	LDSS>10m: for width of Bridge > 10m.	each/mo nth	162,802.21	161,789.91	158,753.02	158,753.02	
4.16.23	Cleaning of exposed concrete surface of sticking material including loose and foreign material by sand blasting with coarse sand followed by and including cleaning with oil free air blast as per direction of Engineer in Charge.	sqm	461.24	451.19	451.71	449.00	
4.16.24	TPS: Providing, erecting, maintaining and removing temporary protective screens made out of specified fabric with all necessary fixing arrangement to ensure that it remains in position for the work duration as required by the E-I-C.						
4.16.24.01	TPS_HC: Hessian Cloth	sqm	56.58	56.43	55.84	55.84	
4.16.24.02	TPS_PVC: Wooven PVC Cloth	sqm	53.15	53.01	52.42	52.42	
4.16.25	SWF: Providing and fixing hard drawn steel wire fabric of size 50 x 25mm mesh or other appropriate size wire mesh to fe fixed and firmly anchored to the concrete surface by means of 'L' shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by E-I-C.	sqm	597.58	596.20	584.23	584.23	

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.17.01	Precast Reinforced Concrete Pipes Supplying and laying machine made pre-cast RCC pipes with collars of different diameter, length & thickness including screening, grading and washing aggregates with clear water, mixing, laying in steel forms, placing re-bars in position, consolidating, curing for at least 14 days including the cost of formwork, lifting, loading and unloading from factory/ yard, laying in position etc including tools, plants, testing etc. all complete as per direction of the E-I-C. The collars shall be of 200mm wide made by RCC and having the same strength as the pipes to be jointed. The spirals shall end in a complete ring/ turn at both the ends of pipes and collars. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is included in this unit rate.					
4.17.01.01	For Light/ Medium Traffic: Cross drains/ culverts/ outlet and any other works carrying light traffic having suggested mix 1:1.5:3 with cement conforming to BDS EN 197-1: 2003 CEM II/A-L/M/V/W 42.5N, 20mm down well graded picked brick chips, sand of minimum FM 2.5 to attain a minimum 28 days cylinder strength of 20 MPa.					
4.17.01.01.01	300mm internal dia, wall thickness not less than 50mm, Re-bar for pipe:- circumferential: 10 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	2,038.52	2,025.34	1,972.38	1,971.60
4.17.01.01.02	400mm internal dia, wall thickness not less than 75mm, Re-bar for pipe:- circumferential: 14 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	3,444.52	3,422.22	3,332.44	3,330.85
4.17.01.01.03	500mm internal dia, wall thickness not less than 75mm, Re-bar for pipe:- circumferential: 16 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	4,024.94	4,001.34	3,906.02	3,904.08
4.17.01.01.04	600mm internal dia, wall thickness not less than 85mm, Re-bar for pipe:- circumferential: 10 turns - 6mmΦ for inner cage & 8 turns - 6mmΦ for outer cage and longitudinal: 6 nos 6mmΦ for inner cage & 6 nos 6mmΦ for outer cage , Re-bar for Collar:-circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	5,114.81	5,088.87	4,983.61	4,981.03
4.17.01.01.05	700mm internal dia, wall thickness not less than 85mm, Re-bar for pipe:- circumferential: 13 turns - 6mmΦ for inner cage & 10 turns - 6mmΦ for outer cage and longitudinal: 6 nos 6mmΦ for inner cage & 6 nos 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	6,091.83	6,063.79	5,948.59	5,945.59
4.17.01.01.06	800mm internal dia, wall thickness not less than 95mm, Re-bar for pipe:- circumferential: 15 turns - 6mmΦ for inner cage & 11 turns - 6mmΦ for outer cage and longitudinal: 7 nos 6mmΦ for inner cage & 7 nos 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	7,612.37	7,578.27	7,437.38	7,433.57
4.17.01.01.07	900mm internal dia, wall thickness not less than 100mm, Re-bar for pipe:- circumferential: 18 turns - 6mmΦ for inner cage & 14 turns - 6mmΦ for outer cage and longitudinal: 7 nos 6mmΦ for inner cage & 7 nos 6mmΦ for outer cage , Re-bar for Collar:-circumferential: 3 turns - 6mmΦ and longitudinal: 12 nos 6mmΦ	m	9,275.67	9,235.96	9,071.39	9,066.89
4.17.01.02	For Heavy Traffic: Cross drains/ culverts/ outlet and any other works carrying heavy traffic having suggested mix 1:1.25:2.5 with cement conforming to BDS EN 197-1: 2003 CEM I 52.5N/ ASTM C150 Type I, 20mm down well graded stone chips broken from boulder (LAA not exceeding 30), sand of minimum FM 2.5 and water reducing admixture conforming to ASTM C 494 Type -A or F @ 1.75 liter per cubic meter of concrete to attain a minimum 28 days cylinder strength of 30 MPa.					
4.17.01.02.01	300mm internal dia, wall thickness not less than 50mm, Re-bar for pipe:- circumferential: 14 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	2,382.36	2,373.37	2,296.72	2,308.13

Item Code	Brief Description of Item	Unit		Ra	ate	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.17.01.02.02	400mm internal dia, wall thickness not less than 75mm, Re-bar for pipe:- circumferential: 14 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	3,945.68	ŕ	3,792.68	3,815.98
4.17.01.02.03	500mm internal dia, wall thickness not less than 75mm, Re-bar for pipe:- circumferential: 19 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	4,771.78	4,758.52	4,602.77	4,631.28
4.17.01.02.04	600mm internal dia, wall thickness not less than 85mm, Re-bar for pipe:- circumferential: 19 turns - 6mmΦ for inner cage & 14 turns - 6mmΦ for outer cage and longitudinal: 6 nos 6mmΦ for inner cage & 6 nos 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	6,792.14	6,779.94	6,594.45	6,632.31
4.17.01.02.05	700mm internal dia, wall thickness not less than 85mm, Re-bar for pipe:- circumferential: 19 turns - 6mmΦ for inner cage & 14 turns - 6mmΦ for outer cage and longitudinal: 8 nos 6mmΦ for inner cage & 8 nos 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	7,803.40	7,791.30	7,583.11	7,626.98
4.17.01.02.06	800mm internal dia, wall thickness not less than 95mm, Re-bar for pipe:- circumferential: 22 turns - 6mmΦ for inner cage & 17 turns - 6mmΦ for outer cage and longitudinal: 8 nos 6mmΦ for inner cage & 8 nos 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos 6mmΦ	m	9,852.52	9,838.68	9,579.53	9,635.33
4.17.01.02.07	900mm internal dia, wall thickness not less than 100mm, Re-bar for pipe:- circumferential: 14 turns - 8mmΦ for inner cage & 11 turns - 8mmΦ for outer cage and longitudinal: 8 nos 6mmΦ for inner cage & 8 nos 6mmΦ for outer cage , Re-bar for Collar:-circumferential: 3 turns - 6mmΦ and longitudinal: 12 nos 6mmΦ	m	11,800.93	11,785.15	11,480.90	11,546.80
4.17.01.02.08	1000mm internal dia, wall thickness not less than 115mm, Re-bar for pipe:- circumferential: 17 turns - 8mmΦ for inner cage & 13 turns - 8mmΦ for outer cage and longitudinal: 8 nos 8mmΦ for inner cage & 8 nos 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ and longitudinal: 12 nos 6mmΦ	m	15,274.28	15,260.53	14,898.82	14,982.78
4.17.01.02.09	1100mm internal dia, wall thickness not less than 115mm, Re-bar for pipe:- circumferential: 19 turns - 8mmΦ for inner cage & 14 turns - 8mmΦ for outer cage and longitudinal: 8 nos 8mmΦ for inner cage & 8 nos 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ and longitudinal: 12 nos 6mmΦ	m	17,098.25	17,085.44	16,695.25	16,787.50
4.17.01.02.10	1200mm internal dia, wall thickness not less than 120mm, Re-bar for pipe:- circumferential: 21 turns - 8mmΦ for inner cage & 16 turns - 8mmΦ for outer cage and longitudinal: 8 nos 8mmΦ for inner cage & 8 nos 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ and longitudinal: 12 nos 8mmΦ	m	19,754.84	19,743.56	19,308.06	19,413.89
4.17.01.02.11	1400mm internal dia, wall thickness not less than 135mm, Re-bar for pipe:- circumferential: 17 turns - 10mmΦ for inner cage & 13 turns - 10mmΦ for outer cage and longitudinal: 12 nos 8mmΦ for inner cage & 12 nos 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ for inner cage & 3 turns - 8mmΦ for outer cage and longitudinal: 8 nos 8mmΦ for inner cage & 8 nos 8mmΦ for outer cage	m	27,357.13	27,349.40	26,813.55	26,950.92
4.17.01.02.12	1600mm internal dia, wall thickness not less than 140mm, Re-bar for pipe:- circumferential: 21 turns - 10mmΦ for inner cage & 16 turns - 10mmΦ for outer cage and longitudinal: 12 nos 8mmΦ for inner cage & 12 nos 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ for inner cage & 3 turns - 8mmΦ for outer cage and longitudinal: 8 nos 8mmΦ for inner cage & 8 nos 8mmΦ for outer cage	m	34,104.79	34,099.96	33,482.74	33,645.68
4.17.01.02.13	1800mm internal dia, wall thickness not less than 150mm, Re-bar for pipe:- circumferential: 22 turns - 10mmΦ for inner cage & 22 turns - 10mmΦ for outer cage and longitudinal: 14 nos 10mmΦ for inner cage & 14 nos 10mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ for inner cage & 3 turns - 8mmΦ for outer cage and longitudinal: 12 nos 8mmΦ for inner cage & 12 nos 8mmΦ for outer cage	m	43,434.34	43,433.30	42,709.43	42,905.89

Item Code	Brief Description of Item		Rate				
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.17.01.02.14	2000mm internal dia, wall thickness not less than 170mm, Re-bar for pipe:- circumferential: 22 turns - 10mmΦ for inner cage & 22 turns - 10mmΦ for outer cage and longitudinal: 14 nos 10mmΦ for inner cage & 14 nos 10mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ for inner cage & 3 turns - 8mmΦ for outer cage and longitudinal: 12 nos 8mmΦ for inner cage & 12 nos 8mmΦ for outer cage	m	50,354.04	50,358.67	49,474.74	49,721.50	
Section-18:	Destructive and Non-destructive Tests (NDT) on C	Concret	е				
4.18.01	RHT (Rebound/ Schmidt Hammer Test): Conducting rebound hammer test to assess quality of the concrete on built structure in accordance with ASTM C 805 (Standard Test Method for Rebound Number of Hardened Concrete) including preparing the surface of RCC structural members such as beams, columns, slabs etc. by chipping the plastered surface/ finishing/ cladding to expose the concrete, smoothening the area using carborndum stone all as directed by E-I-C, preparation of separate report for each structure with observations and recommendations for remedial measures if any. Before commencing RHT, Contractor shall submit methodology with resumes of the consulting personnel for conducting test to the E-I-C for approval.						
4.18.01.01	Mobilization & demobilization within 100km of Dhaka/ nearby source to site and RHT on 10 (ten) nos. spots or less of a single structure	set	15,975.89	15,963.01	15,847.05	15,847.05	
4.18.01.02	Additional charge on Mobilization & demobilization beyond 100km of dhaka/ nearby source to site	km	33.74	33.74	33.74	33.74	
4.18.01.03	RHT on each additional spot after 10(ten) spots tested.	each	1,597.59	1,596.30	1,584.71	1,584.71	
4.18.02	UPV (Ultrasonic Pulse Velocity) Test: Conducting Ultrasonic Pulse Velocity test to assess uniformity, homogeneity and quality of the concrete, in terms of cracks, voids, flaws, honeycombing etc. and other inperfections in accordance with ASTM C 597 (Standard Test Method for Pulse Velocity Through Concrete) including preparing the surface of RCC structural members such as beams, columns, slabs etc. by chipping the plastered surface/ finishing/ cladding to expose the concrete, smoothening the area using carborndum stone all as directed by E-I-C, preparation of separate report for each structure with observations and recommendations for remedial measures if any. Before commencing UPV, Contractor shall submit methodology with resumes of the consulting personnel for conducting test to the E-I-C for approval.						
4.18.02.01	Mobilization & demobilization within 100km of Dhaka/ nearby source to site and UPV on 10 (ten) nos. spots or less of a single structure	set	23,061.97	23,049.09	22,933.14	22,933.14	
4.18.02.02	Additional charge on Mobilization & demobilization beyond 100km of dhaka/ nearby source to site	km	33.74	33.74	33.74	33.74	
4.18.02.03	UPV on each additional spot after 10(ten) spots tested.	each	2,306.20	2,304.91	2,293.31	2,293.31	
4.18.03	Core Cutter: Obtaining, preparing and testing in-situ cylindrical core specimens of specified diameter drilled from hardened concrete including core location determination by rebar locator/ scanning and preparing the structural members as directed to expose the concrete, cleaning the area with blower/ wire brush and taking out the comcrete sample with cutter and testing as per standard specification. The procedure for drilling, examination, measurement and testing for comprehensive strength shall be in accordance with ASTM C 42 (Standard Test Method for obtaining and testing drilled cores and sawed beams of concrete). Before commencing Core cutting, contractor shall submit methodology with resumes of the consulting personnel for conducting test to the E-I-C for approval. The cost of cutting the core with necessary laboratory test fees is included in this unit rate.						
4.18.03.01	Mobilization & demobilization within 100km of Dhaka/ nearby source to site and in-situ core cutting on 3 (three) nos. spots or less of a single structure	set	24,479.19	24,466.31	24,350.35	24,350.35	
4.18.03.02	Additional charge on Mobilization & demobilization beyond 100km of Dhaka/ nearby source to site	km	47.24	47.24	47.24	47.24	

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1	2	3	4	5	6	7
4.18.03.03	In-situ core cutting on each additional nos. after 3(three) spots	each	6,403.24	6,400.02	6,371.03	6,371.03
	Ground Reinforcement, Improvement and Treatm	ent Tec	hniques	T	1	
4.19.01	Sand Compaction Pile: Execution of sand compaction pile through displacement method by using tripod rig, mechanical winch, special type drop hammer (weighing minimum 1.00 ton) and casing pipe of inner diameter 200mm to 300mm upto a maximum depth of 10.0m, compacting the sand with desired sand volume and FM value of sand upto desired relative density (60% to 65%), to attain the desired SPT value between sand piles etc. complete including the cost of compacted sand as per design, specification and direction of Engineer in charge. [Note: Sand must be free from clay lump and blending of sand to attain the specific FM is not acceptable]					
4.19.01.01	Pile diameter: 200mm					
4.19.01.01.01	Sand Volumn 0.075 cum/m, minimum FM = 1.5	m	250.21	244.74	244.23	242.85
4.19.01.01.02	Sand Volumn 0.075 cum/m, minimum FM = 1.8	m	272.39	273.27	268.15	268.15
4.19.01.01.03	Sand Volumn 0.075 cum/m, minimum FM = 2.5	m	323.83	317.07	316.56	314.63
4.19.01.01.04	Sand Volumn 0.1 cum/m, minimum FM = 1.5	m	311.09	303.93	303.67	301.83
4.19.01.01.05	Sand Volumn 0.1 cum/m, minimum FM = 1.8	m	340.67	341.97	335.57	335.57
4.19.01.01.06	Sand Volumn 0.1 cum/m, minimum FM = 2.5	m	409.26	400.38	400.11	397.54
4.19.01.01.07	Sand Volumn 0.15 cum/m, minimum FM = 1.5	m	460.48	449.78	449.50	446.74
4.19.01.01.08	Sand Volumn 0.15 cum/m, minimum FM = 1.8	m	504.84	506.83	497.36	497.36
4.19.01.01.09	Sand Volumn 0.15 cum/m, minimum FM = 2.5	m	607.73	594.44	594.17	590.30
4.19.01.02	Pile diameter: 250mm					
4.19.01.02.01	Sand Volumn 0.1 cum/m, minimum FM = 1.5	m	319.29	312.08	311.66	309.82
4.19.01.02.02	Sand Volumn 0.1 cum/m, minimum FM = 1.8	m	348.86	350.11	343.56	343.56
4.19.01.02.03	Sand Volumn 0.1 cum/m, minimum FM = 2.5	m	417.45	408.52	408.10	405.53
4.19.01.02.04	Sand Volumn 0.15 cum/m, minimum FM = 1.5	m	479.13	468.31	467.69	464.93
4.19.01.02.05	Sand Volumn 0.15 cum/m, minimum FM = 1.8	m	523.49	525.37	515.55	515.55
4.19.01.02.06	Sand Volumn 0.15 cum/m, minimum FM = 2.5	m	626.37	612.98	612.36	608.50
4.19.01.02.07	Sand Volumn 0.20 cum/m, minimum FM = 1.5	m	622.08	607.75	607.24	603.56
4.19.01.02.08	Sand Volumn 0.20 cum/m, minimum FM = 1.8	m	681.22	683.83	671.05	671.05
4.19.01.02.09	Sand Volumn 0.20 cum/m, minimum FM = 2.5	m	818.40	800.64	800.13	794.98
4.19.01.02.10	Sand Volumn 0.25 cum/m, minimum FM = 1.5	m	767.61	749.76	749.30	744.70
4.19.01.02.11	Sand Volumn 0.25 cum/m, minimum FM = 1.8	m	841.53	844.85	829.06	829.06
4.19.01.02.12	Sand Volumn 0.25 cum/m, minimum FM = 2.5	m	1,013.01	990.87	990.42	983.97
4.19.01.03	Pile diameter: 300mm					
4.19.01.03.01	Sand Volumn 0.15 cum/m, minimum FM = 1.5	m	492.88	481.98	481.10	478.34
4.19.01.03.02	Sand Volumn 0.15 cum/m, minimum FM = 1.8	m	537.24	539.04	528.95	528.95
4.19.01.03.03	Sand Volumn 0.15 cum/m, minimum FM = 2.5	m	640.12	626.65	625.77	621.90
4.19.01.03.04	Sand Volumn 0.20 cum/m, minimum FM = 1.5	m	657.19	642.67	641.49	637.81
4.19.01.03.05	Sand Volumn 0.20 cum/m, minimum FM = 1.8	m	716.34	718.74	705.29	705.29
4.19.01.03.06	Sand Volumn 0.20 cum/m, minimum FM = 2.5	m	853.52	835.55	834.38	829.22
4.19.01.03.07	Sand Volumn 0.25 cum/m, minimum FM = 1.5	m	821.51	803.35	801.87	797.27
4.19.01.03.08	Sand Volumn 0.25 cum/m, minimum FM = 1.8	m	895.44	898.44	881.63	881.63

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1	2	3	4	5	6	7	
4.19.01.03.09	Sand Volumn 0.25 cum/m, minimum FM = 2.5	m	1,066.91	1,044.46	1,042.99	1,036.54	
4.19.01.03.10	Sand Volumn 0.30 cum/m, minimum FM = 1.5	m	985.82	964.03	962.26	956.74	
4.19.01.03.11	Sand Volumn 0.30 cum/m, minimum FM = 1.8	m	1,074.53	1,078.14	1,057.97	1,057.97	
4.19.01.03.12	Sand Volumn 0.30 cum/m, minimum FM = 2.5	m	1,280.31	1,253.36	1,251.59	1,243.86	
4.19.01.03.13	Sand Volumn 0.35 cum/m, minimum FM = 1.5	m	1,150.07	1,124.65	1,122.59	1,116.15	
4.19.01.03.14	Sand Volumn 0.35 cum/m, minimum FM = 1.8	m	1,253.57	1,257.78	1,234.25	1,234.25	
4.19.01.03.15	Sand Volumn 0.35 cum/m, minimum FM = 2.5	m	1,493.64	1,462.20	1,460.14	1,451.12	
4.19.02	Stone Column: Providing and installing cast-in-situ compaction stone column of speicified diameter and length to increase bearing capacity and reduce the settlement of construction by driving of suitable MS casing pipe (removable) having a detachable M.S.shoe (flat/conical) at the bottom and filling inside the casing pipe in layers of 1m using 1(sand; minimum FM 2.5): 2(Shingles; Shingles shall be 50mm down graded) and each layer be well compacted by dynamic compaction method (before compaction lift the casing for 800mm from bottom and then the backfill shall be throughly compacted. This procedure shall be repeated for every layer till the ground level is reached) for ground improvement including all materials, labour etc complete as per specification, drawings and as directed by the E-I-C.						
4.19.02.01	For 300mm diameter:						
4.19.02.01.01	Fill Volumn 0.2 cum/m	m	1,581.27	1,575.72	1,541.14	1,551.53	
4.19.02.01.02	Fill Volumn 0.3 cum/m	m	2,219.65	2,212.23	2,163.22	2,178.81	
4.19.02.02	For 500mm diameter:						
4.19.02.02.01	Fill Volumn 0.6 cum/m	m	3,829.35	3,818.06	3,731.56	3,762.74	
4.19.02.02.02	Fill Volumn 0.8 cum/m	m	5,003.94	4,989.48	4,876.07	4,917.64	
4.19.03	Prefabricated Vertical Drain (PVD)/ Wick Drain: Supply & Installation of prefabricated virtical drains/ wick drains to reduce the preload time & to accelerate settlement of embankments for bridge approach or roadways including unrolling the wick drain roll, changing & splicing wick drain roll, pushing hollow mandrel carrying into the ground carring the wick drain inside to protect it from tear, cuts and abrasion, providing anchor plate/ rod at the bottom of the mandrel to prevent soil from entering the mandrel during installation, maintain the mandrel in a vertical position, providing a minimum of 30 ton of static push force when setting on firm ground, installing by specialized wick drain installation equipment mounted on hydraulic excavator or crane, withdrawn the mandrel after the installtion of the drain, cost of furnishing all tools, materials, labour, equipment and all other costs necessary to complete the work as per design, specification & direction of the E-I-C. Hydraulic jetting shall not be permitted for installation of the drains. The locations and depth of wick drain, sequene of installation will be as directed by the Engineer and specifications in conjuction with all drawings and logs. All drains will go to maximum allowable/ anchorable depth or until refusal as directed in the specification and logs. Note: Prior to installation of PVD the Contractor shall demonstrate that the equipment, method, and materials produce a satisfactory installation in accordance with the specifications. For this purpose, the Contractor will be required to install 2 trial drains at locations designated by the Engineer. Trial drains will be paid at the contract unit price unless the drain is improperly installed. 5% wastage is considered in this unit rate.						

Item Code	Brief Description of Item	Unit			ate	
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.19.03.01	SPVD: Prefabricated Vertical Synthetic Drains shall consist of a continuous plastic drainage core wrapped in a non-woven polypropylene/polyester geotexile material having discharge capacity at 240 kPa and Hydraulic Gradient of 1 should be greater than 500 m3/yr and shall meet the following specifications. Composite Drain Properties: Weight (g/m) > 75 \pm 10%, Width(mm) \geq 100 \pm 2, Thickness (mm) > 3.0, Tensile Strength (kN) > 2.2, Elongation at 2.0 kN (%) > 25, Strength at 10% Elongation (kN) > 1.3 Filter Fabric Properties: CBR Puncture Resistance (N) > 150, Trapezoidal Tear Strength (N) > 200, Grab Tensile Strength (N) > 550, Apparent opening size(AOS, O95) (micron) \leq 90, Permeability/ Permittivity (cm/s) > 200 x 100	m	423.05	422.64	420.92	420.92
4.19.03.02	PVJD: Prefabricated Vertical Jute Drains (PVJD) shall consist of an outer sheath (jacket) made of woven jute geotextile (JGT) with 4-coir wicks separated by stitched compartments having discharge capacity at 7 days (200 kPa at hydraulic gradient of 1.0) shall be greater than 500 m3/yr and shall meet the following specifications. Composite Drain Properties: Width (mm) ≥ 90 ± 10%, Thickness (mm) > 5, Grab Tensile Strength (N), MD X CD > 350 X 350, Trapezoidal Tear Strength (N), MD X CD > 100 X 100, Puncture Resistance (N) > 100, Burst Strength (N) > 900, Apparent Opening size (AOS, O95) (micron) ≤ 90. Filter Fabric Properties: Equivalent Diameter (mm) > 50.	m	271.54	271.13	269.40	269.40
4.19.04	Khoa Consolidation: 50mm down graded picked jhama Khoa Consolidation in foundation trenches by mixing in mixture machine with local sand of min. FM 1.2 incluing/ excluding cement to achieve minimum dry density of 90% with optimum mositure content (Modified Proctor Test) including breaking and screening chips, laying and spreading in 150mm layers uniformly and compacting etc. all complete and accepted by the E-I-C.					
4.19.04.01	Khoa: Sand = 2: 1	cum	6,605.88	6,573.06	6,272.01	6,272.01
4.19.04.02	Cement: Sand: Khoa: = 1:6:12	cum	7,657.94	7,625.35	7,335.51	7,335.51
4.19.05	MSE: Construction of Mechanically Stabilized/Reinforced Earth retaining walls, viaduct access ramps, road widening and bridge abutments with pre-cast Facia panels, reinforcing element, foundation beam, caping beam including excavation for foundation, concreting the foundation with appropriate groove seating for facing elements, placement of facing elements, assembling, joining with facing elements, laying of the reinforcing elements, earth filling with granular material etc. as per design, drawing, specification and direction of Engineer-in-charge. Contractor shall submit the methodology of reinforced earth work to the Engineer-in-Charge for approval before commencing the work. Notes: i) Drainage arrangement including filter media shall be made as per approved design & drawings and calculated separately. ii) The rates for excavation and foundation concrete shall be taken from section 5 & 9 of Bridge Works. iii) The earth fill to be retained is not included in this analysis which is to be worked out and provide separately. iv) Capping beam is to be priced separately as per approved design. The rate for cement concrete shall be taken from the section 7 of bridge works.					
4.19.05.01	MSE_FP: Providing, hoisting and placing of pre-cast RCC Facia Panels of minimum 0.80 sqm area and 180mm thickness, made with minimum 35 MPa concrete inclusive of reinforcement, shuttering, casting in yard, curing, storing, transporting, lifting, placing in position, erection with all necessary accessories i.e., rubber pad, universal hook, anchor block, nut, washer, joint fillers, fasteners etc. complete in all respect as per approved drawing, specification and direction of Engineer-in-charge. [Using Batching Plant, Transit Mixer, Concrete Pump and bulk rate of Cement]	sqm	5,901.16	5,919.49	5,648.61	5,717.15

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division	
1	2	3	4	5	6	7	
4.19.05.02	Reinforcing Elements: Providing, assembling, joining with facing elements and laying of reinforcing elements (metal strip/geotextile/steel etc.) in the form of grid or strip or strap or combination of metallic or synthetic or any other proprietary material as per approved drawing, specification and direction of Engineer-in-Charge. The packaging of reinforcing elements shall clearly indicate the name of the manufacturer/ supplier and brand name, date of production, expiry, if any and batch identification number along with the manufacturers test certificates.						
4.19.05.02.01	MSE_MSR_GCS: With reinforcing elements of Galvanised carbon steel strips of 60mm wide and 5mm thick with minimum bearing and shear strength of 490 MPa conforming to BS EN 10025, Grade S 355 JR. The fabricated element shall be galvanized and the minimum zinc coating weight shall not be less than 1000gm/sqm.	m	1,331.78	1,331.24	1,329.62	1,329.62	
4.19.05.02.02	MSE_MSR_Cu: With reinforcing element of Copper Strips of 60mm wide and 5mm thick conforming to BS 2870 quality C 101 or C 102 in the 1/2H condition and shall have 0.2 percent proof stress of not less than 180 MPa.	m	1,331.78	1,331.24	1,329.62	1,329.62	
4.19.05.02.03	MSE_MSR_AI: With reinforcing elements of Aluminium Strips of 60mm wide and 5mm thick conforming to Bs 1470 quality 5454 in H 24 condition.	m	678.51	677.97	676.35	676.35	
4.19.05.02.04	MSE_MSR_SS: With reinforcing element of Stainless steel strips of 60mm wide and 5mm thick.	m	678.51	677.97	676.35	676.35	
4.19.05.02.05	MSE_MSR_FRP: with reinforcing element of Glass reinforced polymer/ fibre reinforced polymer/ polymeric strips of 60mm wide and 5mm thick.	m	1,331.78	1,331.24	1,329.62	1,329.62	
4.19.05.02.06	MSE_GTR: With reinforcing elements of synthetic geogrids.	sqm	319.21	318.67	317.05	317.05	
4.19.05.02.07	MSE_HDGSR-R: With reinforcing elements of high yield ribbed/ deformed steel reinforcement complying with BDS ISO 6935-2: 2016 and fully hot-dip Galvanized to BS EN ISO 1461: 1999 with minimum coat thickness of 85 microns or 610 gm per meter squre surface. [Using retail rate of reinforcing bar]	kg	238.90	238.41	236.94	236.94	
4.19.05.02.08	MSE_HDGSR-B: With reinforcing elements of high yield ribbed/ deformed steel reinforcement complying with BDS ISO 6935-2: 2016 and fully hot-dip Galvanized to BS EN ISO 1461: 1999 with minimum coat thickness of 85 microns or 610 gm per meter squre surface. [Using Bulk rate of reinforcing bar]	kg	236.20	235.71	234.24	234.24	
4.19.05.03	MSE_BF: Backfill with selected granular material in layers in approaches of work over metal strip/synthetic geogrid/steel which is to be retained by mechanically stabilized/ reinforced earth wall including grading, placement and compaction complete as per drawing, Technical specification and as directed by the Engineer-incharge. The backfill material shall be clean, free draining, granular with high friction and low cohesion having particle size not more than 100mm and angle of internal friction not less than 34 degree, plasticity index shall not exceed 6 as determined by AASHTO T 90, non-corrosive, coarse grained with not 10 per cent of particles passing 75 micron sieve, free of shale or other soft, poor durability particles, any deleterious matter, chlorides, salts, acids, alkalies, mineral oil, fungus and microbes and pH shall be between 5.0 to 10.0 as determined by AASHTO T 289. The backfill material shall be compacted for AASHTO T 236 to 95 percent of the maximum density determined according to AASHTO T 99 method C or D and corrected for oversized material according to AASHTO T 99, Note 9.	cum	3,381.76	3,400.92	3,262.14	3,294.78	

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1	2	3	4	5	6	7
4.19.06	Jet Grouting: Execution of Jet grouted pile including mobilization & demobilization of Jet Grouting Machine, cost of furnishing all materials, labour and equipment necessary to complete the work, cost of trial columns, coring, testing and disposal of waste materials. Every completed jet grouted column/s shall be supported with Jet Grout Pile Data. No separate payment shall be made for drilling holes, washing/cleaning of holes, placing grout, labor, equipment, processing, mixing, hooking-up to the hole, injecting grout, hole closures, clearing up, cost of furnishing samples of grouting materials, providing assistance for sampling including verification testing, all of which shall be considered part of the Work of jet grouting.					
4.19.06.01	JGC_600: Diameter of Jet grouted column = 600mm	m	3,522.46	3,519.22	3,507.21	3,507.21
4.19.06.02	JGC_800: Diameter of Jet grouted column = 800 mm	m	6,287.58	6,281.83	6,260.38	6,260.38
4.19.06.03	JGC_1000: Diameter of Jet grouted column = 1000 mm	m	9,810.04	9,801.05	9,767.59	9,767.59
4.19.06.04	JGC_1200: Diameter of Jet grouted column = 1200 mm	m	14,118.92	14,105.96	14,057.77	14,057.77
4.19.07	Soil Nailing: Supply and installation of soil nail of specified diameter, spacing and length as shown in drawings including setting-up, drilling in soil or rock, galvanized re-bar, centralizers, grout injection (30 MPa Concrete) as specified in specification. Works also include supply and fix nail head and all necessary works for proper completion including UPVC pipe as casing required for soil nailing work. The constractor shall submit the Methodology for the installtion of Soil Nail to the Engineer-in-charge for prior written approval (at least 7 days) before the commencement of works. The constractor shall keep records for each soil nail installation and submit one signed copy to the Engineer not later than next working day after the soil nails have been installed. The record for each soil nail shall include soil nail reference number, date/time of commencement and completion of drilling and grouting, names of supervisor and operators, the necessary drilling and grouting details etc. Only dry type drilling equipment shall be used to minimize slope disturbance.					
4.19.07.01	Diameter of Drill Hole: 100 mm, Diameter of Re-bar = 25mm (Grade 500, conforming to BDS ISO 6935-2:2016)	m	1,569.98	1,567.59	1,559.52	1,559.52
4.19.08	Conducting pull out test for soil nail to 1.5 × Working Load or as specified by E-I-C providing all necessary resources including all torque wrenhches, jacks, gauges, reaction frame, pump, load cell, bearing plates, and other equipment required to carry out the pull-out test of the soil nails as specified in Engineer's specification. The complete jacking system including hydraulic jack, pump and pressure gauge should be calibrated as single unit before use to an accuracy of not less than 5% of the applied load.	LS				
4.19.09	Anchor Bar: Fixing anchor bars upto 28mm. dia to the founding level at rock strata as per approved design including cost, conveyance & all taxes of all materials and T&P required for the work but excluding cost of TS rod & labour charges for bending, binding, tying the grills & placing in position as per specification & direction of Engineer-in-Charge.					
4.19.09.01	With G.I/MS pipe	nos	891.67	890.30	884.52	884.52
4.19.10	Rock Drilling: Drilling hole of specified length and diameter (more than 150mm diameter) below foundation bed at weathered rock/rock strata in flat/slopping ground by special drilling equipment with diamond drill bit including mobilization & demobilization of drilling equipment, setting-up, drilling in rock as per drawing, specification & direction of Engineer-in-Charge. The constractor shall submit the Methodology for the drilling holes in rock to the Engineer-in-charge for prior written approval (at least 7 days) before the commencement of works.					
4.19.10.01	RD_250: Diameter of Drill Hole: 250 mm	m	20,045.71	20,025.47	19,944.48	19,944.48

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1	2	3	4	5	6	7
4.19.10.02	RD_300: Diameter of Drill Hole: 300 mm	m	22,926.78	22,903.63	22,811.04	22,811.04