

Rupsa Bridge Construction Project

Bill of Quantities

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
Bill No. 5 - Approach Br. Substructure					
5.1	Excavation and backfill				
A	Excavation for piers / abutments	cu.m	2908.0		
B	Filling behind abutments	cu.m	242.0		
C	Temporary Works	nr.	nil		
	Construction and Removal of cofferdams and dewatering for pile cap				
5.2	Piling				
5.2.1	Piling Plant				
A	Establishment of piling and associated plant for preliminary trial and load test piling in advance of main piling	nr.	1		
B	Establishment of piling and associated plant for main piling	sum	1		
C	Additional cost for bored piling work in the river channel portion.	sum	nil		
5.2.2	Full - size pile complete (including boring, base grouting, temporary casing, concrete and reinforcement etc.) except for permanent casing:				
A	56 m	m	3136.0		
B	44 m	m	1408.0		
C	47 m	m	4136.0		
D	57 m	m	684.0		
E	30 m	m	360.0		
5.2.3	Trial Piles / Test Piles				
A	Trial Piles complete except for permanent casing	nr	1		
B	Load Test Piles (including Osterberg Load Cells) and load tests	sum	1		
5.2.4	Concrete Reinforcement and casing				
	Insitu class 30/20 concrete	cum	6119.0		
	High yield steel bar reinforcement including cutting, bending and placing	tonne	817.0		
	Permanent steel casing	m	2000.0		
5.2.5	Remove piles				
A	Trial Piles	nr.	nil		
B	Load Test	sum	nil		
5.2.6	Integrity testing				
	Sonic core testing	sum	1		
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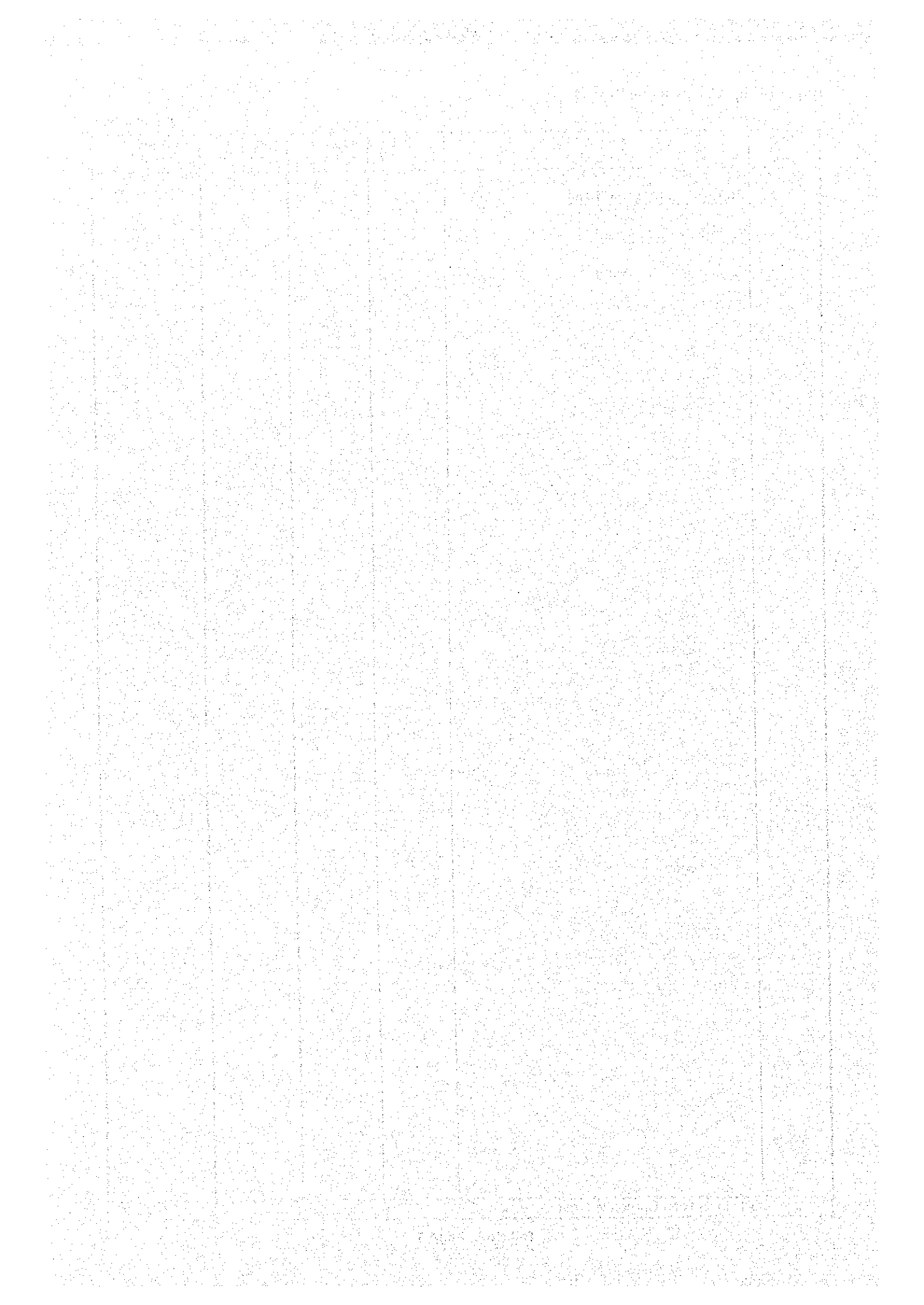
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Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
5.2.7	Direct changes to pile length instructed up to 4 weeks from submission of the approved final Soils Investigation Report				
A	Overall increase (PROVISIONAL QUANTITY)	m	2080.0		
B	Overall reduction (PROVISIONAL QUANTITY)	m	1040.0		
5.3	Cast in-place concrete Insitu concrete in accordance with the Specification :				
A	Blinding concrete Class U15/20	cu.m	152.0		
B	Pile Cap - Insitu concrete Class 30/20	cu.m	1800.0		
C	Pier stems - insitu concrete Class 30/20	cu.m	2072.0		
D	Abutment - insitu concrete Class 30/20 including formwork Class F2	cu.m	143.0		
5.4	Reinforcing steel (Substructure) High yield steel bar reinforcement all diameters of 12 metres length or less including cutting, bending and placing.	tonne	693.0		
5.5	Bearing				
A	Supply and install free sliding pot bearings on piers to Drawings and specification Section 18	nr.			
B	Supply and install free sliding pot bearings on abutments to Drawings and Specification Section 18	nr.	nil		
5.6	Horizontal Restraints				
A	Supply and install shock transmission units and transverse restraints	nr.	nil		
B	Supply and install shear key at Piers (transverse and longitudinal restraint)	nr.			
C	Supply and install shear key at abutments (transverse restraint)	nr.	24		
5.7	Water proofing Supply and apply two coats of bituminous emulsion to buried concrete surfaces.	sq.m			
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	<p><u>BILL NO. 5 COLLECTION</u></p> <p>Page 1 carried forward</p> <p>Page 2 carried forward</p>				
<p>Bill No. 5 Total Carried to Final Collection</p>					



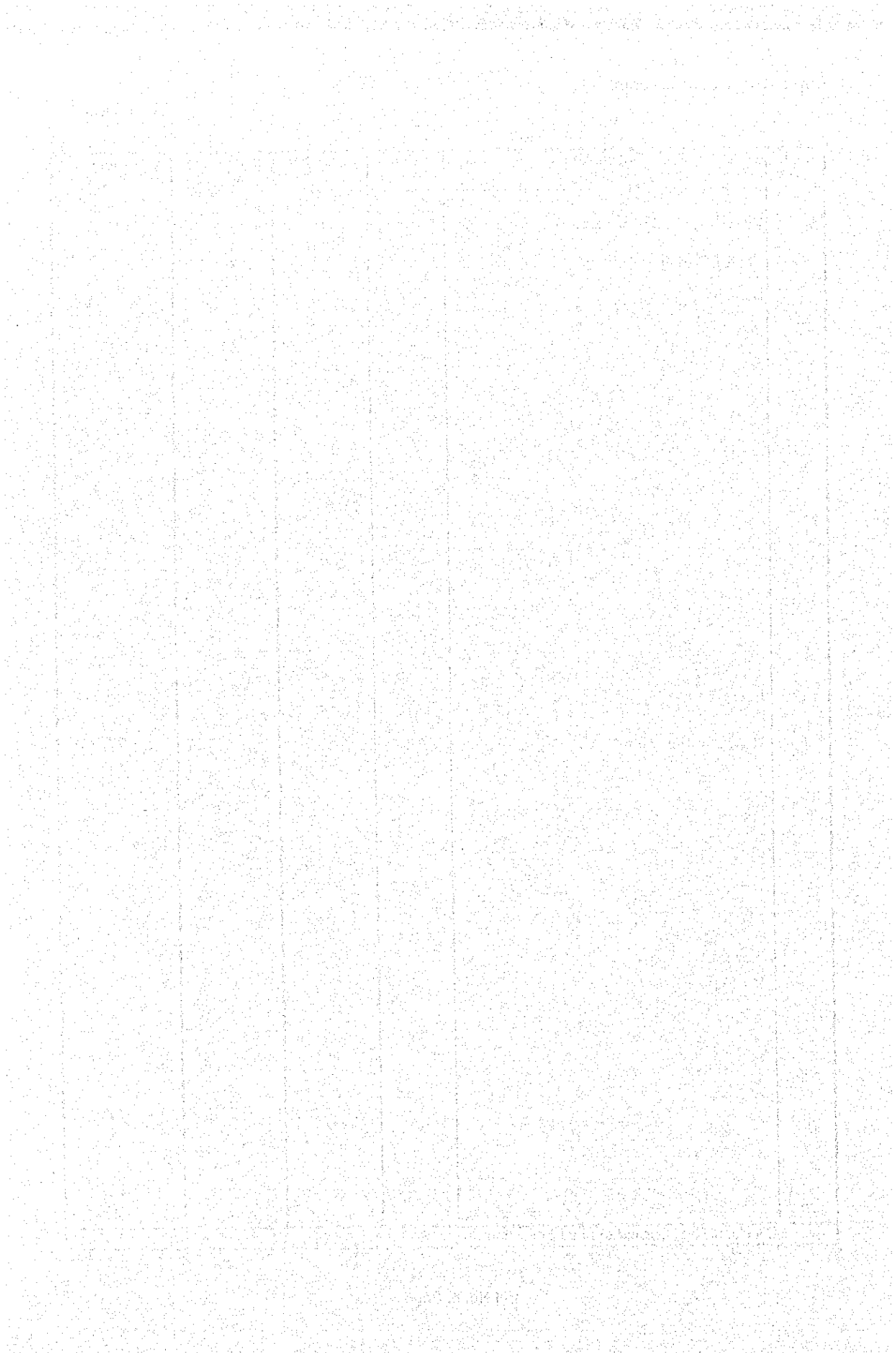
Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
Bill No. 6 - Approach Br. Superstructure					
6.1	Structural Concrete				
6.1.1	Precast Concrete				
A	Precast concrete class 35/20 girders including handling and erection at bridge site as per Drawings	nr.	168		
B	Precast concrete class 30/20 footways segments including reinforcing steel handling and erection at bridge site as per Drawings	nr.	2884		
C	Precast concrete class 30/20 parapet segments including reinforcing steel handling and erection at bridge site as per Drawings	nr.	728		
D	Precast concrete class 30/20 sidewalk cover segments including handling and erection at bridge site as per Drawings	nr.	1448		
E	Precast concrete class 30/20 lighting base attached to parapet including handling and erection at bridge site as per Drawings	nr.	56		
F	Precast concrete class 30/20 divider cover segments including handling and erection at bridge site as per Drawings	nr.	488		
6.1.2	Cast in-place concrete Concrete Class 30/20 for cast in-place concrete in deck and diaphragm as per as per Drawings	cu.m	2805.2		
6.1.3	Prestressed concrete girders with concrete Class 35/20	cu.m	3926.8		
Page Total Carried to Bill No. 6 Collection					

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
6.1.3	Steel Reinforcement for Structures High yield steel bar reinforcement all sizes not exceeding 12m in length including cutting, bending and placing.	tonne	1045.8		
6.2	Expansion Joint Premould Joint Filler	sq.m	3.9		
6.3	Supply and install neoprene bearings as per Drawings and Specification.	nr.	322.0		
6.4	12 mm dia galvanised dowel bar 1m length	nr.	1320		
6.5	Adjusting Mortar	cu.m	19.0		
6.6	PC Cable	tonne	177.2		
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	<u>BILL NO. 6 COLLECTION</u> Page 1 carried forward Page 2 carried forward				
Bill No. 6 Total Carried to Final Collection					



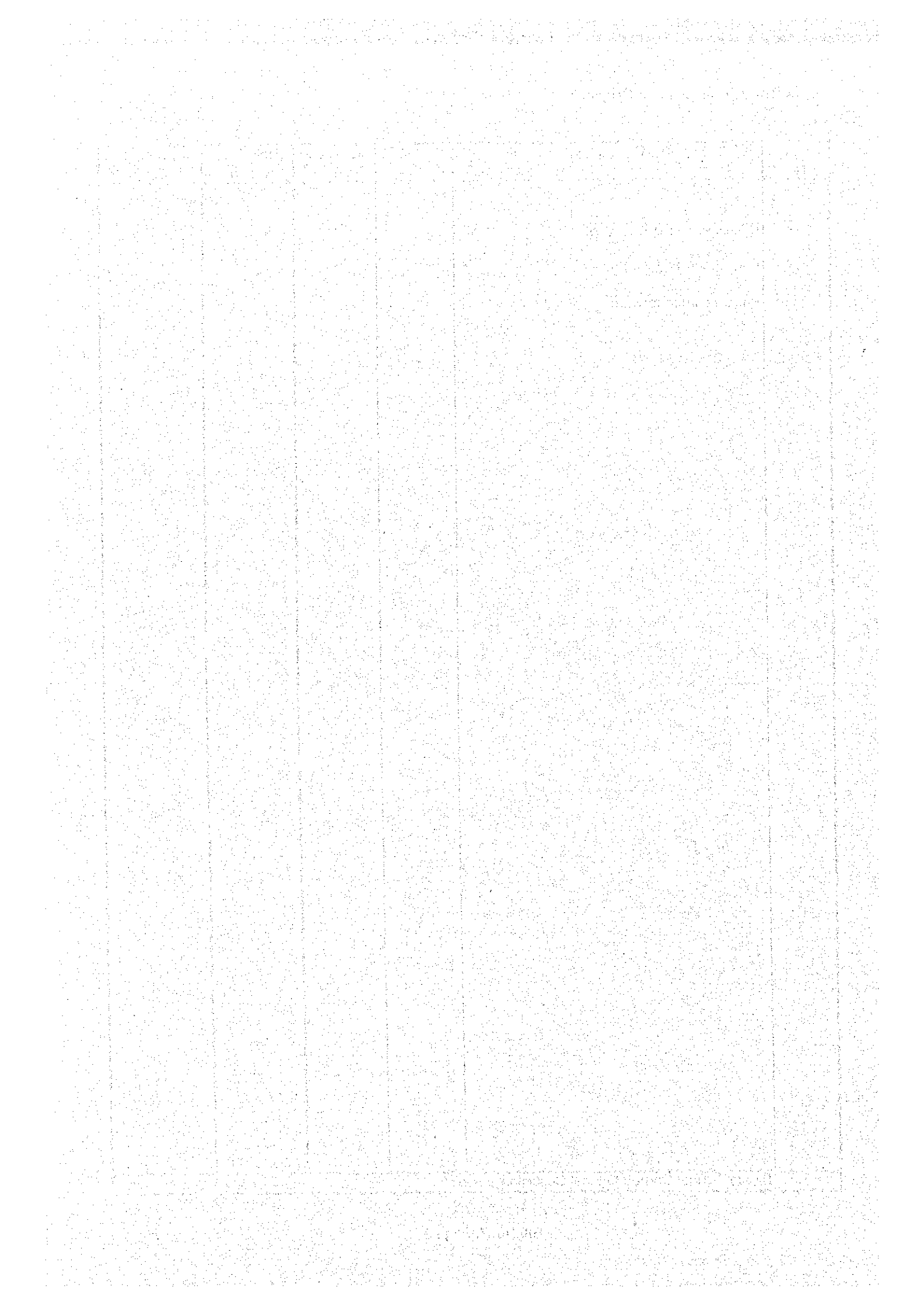
Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
Bill No. 7 - Hatia Canal Bridge					
7.1	Piling Full - size pile complete (including boring, base grouting, temporary casing, concrete and reinforcement etc.) except for permanent casing:				
A	43m	m	2408.0		
B	Permanent steel casing	m	120.0		
C	Proof load test on working pile.	nr.	nil		
7.2	Excavation and Filling				
A	Excavate, trim and stockpile for back filling	cu.m	nil		
B	Excavate, trim and dispose off site.	cu.m	177.0		
C	Backfill with suitable material	cu.m	428.0		
D	Backfill with local borrow material	cu.m	nil		
E	Backfilling with brick chips 3" down graded as per specification.	cu.m	43.0		
7.3	Concrete				
A	Mass concrete backfill with concrete Class U15/20	cu.m	nil		
B	Brick flat soling	sq.m	176.0		
C	Blinding concrete Class U15/20	cu.m	18.0		
D	Reinforced concrete Class 30/20 in pile caps/bases.	cu.m	352.0		
E	Reinforced concrete Class 30/20 in piers, abutment and wing walls.	cu.m	318.0		
F	Reinforced concrete Class 30/20 in pier caps	cu.m	54.0		
G	Reinforced concrete Class 35/20 in cross girders/deck slab.	cu.m	445.6		
H	Reinforced concrete Class 35/20 in railings/footway slab.	cu.m	nil		
I	Reinforced concrete Class 30/20 in approach slab.	cu.m	nil		
J	Prestressed concrete girders with concrete Class 35/20	cu.m	561.3		
K	750mm/250mm thick brick work including plastering on sides as per Drawings and Specification	cu.m	nil		
7.4	High Yield Steel Reinforcement fixed to Detail in all work Except Piles				
A	Of all diameters not exceeding 12m in length including cutting, bending and placing.	tonne	224.8		
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Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
7.5 A	Internal Prestressing : Longitudinal tendons comprising 12 strand or equivalent approved in ducts with anchorages, ducts, tensioning, anchoring, grouting, etc. complete as per Drawing and Specification.	tonne	25.3		
7.6 A	Formwork Fair face formwork for substructure	sq.m	1156.0		
B	Fair face formwork for superstructure	sq.m	280.7		
7.7	Supply and install Premould joints filler as per Drawing.	sq.m	0.8		
7.8	Supply and apply tack coat over deck slab as per Section 28	sq.m	1736.0		
7.9	Supply and lay 75mm nominal thick A.C. wearing course over deck slab as per Section 28.	sq.m	1259.3		
7.10	Supply and apply two coats of bituminous emulsion to buried concrete surfaces.	sq.m	1259.3		
7.11	Supply and install neoprene bearings as per Drawings and Specification.	nr.	48		
7.12	Supply, fabricate and install 50mm/150mm dia PVC pipe in abutment walls and deck slab as per Drawing.	m	124.0		
7.13 A	Precast concrete Precast concrete class 30/20 footways segments including handling and erection at bridge site as per Drawings	nr.	200		
B	Precast concrete class 30/20 parapet segments including handling and erection at bridge site as per Drawings	nr.	204		
C	Precast concrete class 30/20 sidewalk cover segments including handling and erection at bridge site as per Drawings	nr.	400		
D	Precast concrete class 30/20 lightingbase attached to parapet including handling and erection at bridge site as per Drawings	nr.	8		
Page Total Carried to Bill No. 7 Collection					

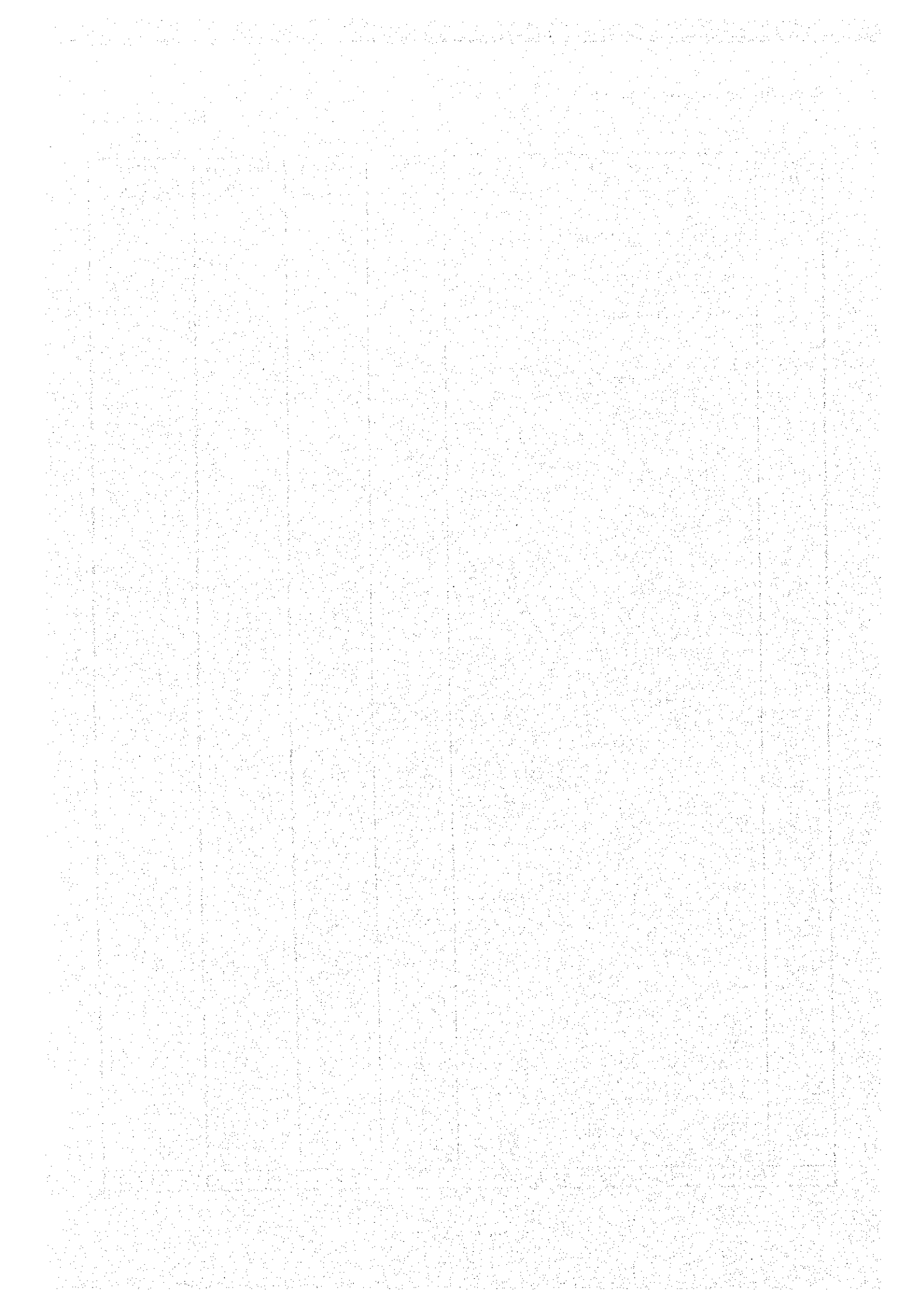
Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	<u>BILL NO. 7 COLLECTION</u>				
	Page 1 carried forward				
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	Bill No. 7 Total Carried to Final Collection				



Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
Bill No. 8 - Molonghata Canal Bridge					
8.1	Piling Full - size pile complete (including boring, base grouting, temporary casing, concrete and reinforcement etc.) except for permanent casing:				
A	37m	m	1184.0		
B	Permanent steel casing	m	nil		
C	Proof load test on working pile.	nr.	nil		
8.2	Excavation and Filling				
A	Excavate, trim and stockpile for back filling	cu.m	nil		
B	Excavate, trim and dispose off site.	cu.m	177.0		
C	Backfill with suitable material	cu.m	428.0		
D	Backfill with local borrow material	cu.m	nil		
E	Backfilling with brick chips 3" down graded as per specification.	cu.m	43.0		
8.3	Concrete				
A	Mass concrete backfill with concrete Class U15/20	cu.m	nil		
B	Brick flat soling	sq.m	176.0		
C	Blinding concrete Class U15/20	cu.m	18.0		
D	Reinforced concrete Class 30/20 in pile caps/bases.	cu.m	177.0		
E	Reinforced concrete Class 30/20 in piers, abutment and wing walls.	cu.m	290.0		
F	Reinforced concrete Class 30/20 in pier caps.	cu.m			
G	Reinforced concrete Class 35/20 in cross girders/deck slab.	cu.m	137.0		
H	Reinforced concrete Class 35/20 in railings/footway slab.	cu.m			
I	Reinforced concrete Class 30/20 in approach slab.	cu.m			
J	Prestressed concrete girders with concrete Class 35/20	cu.m	187.1		
K	750mm/250mm thick brick work including plastering on sides as per Drawings and Specification	cu.m	nil		
8.4	High Yield Steel Reinforcement fixed to Detail in all work Except Piles				
A	Of all diameters not exceeding 12m in length including cutting, bending and placing.	tonne	89.4		
Page Total Carried to Bill No. 8 Collection					

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
8.5	<u>Internal Prestressing :</u>				
A	Longitudinal tendons comprising 12 strand or equivalent approved in ducts with anchorages, ducts, tensioning, anchoring, grouting, etc. complete as per Drawing and Specification.	tonne	8.4		
8.6	Formwork				
A	Fair face formwork for substructure	sq.m	827.0		
B	Fair face formwork for superstructure	sq.m	278.0		
8.7	Supply and install Premould joints filler as per Drawing.	sq.m	0.39		
8.8	Supply and apply tack coat over deck slab as per Section 28	sq.m	580.0		
8.9	Supply and lay 75mm nominal thick A.C. wearing course over deck slab as per Section 28.	sq.m	420.7		
8.10	Supply and apply two coats of bituminous emulsion to buried concrete surfaces.	sq.m	420.7		
8.11	Supply, fabricate and install 50mm/150mm dia PVC pipe in abutment walls and deck slab as per Drawing.	m	13.1		
8.12	Precast concrete				
A	Precast concrete class 30/20 footways segments including handling and erection at bridge site as per Drawings	nr.	160		
B	Precast concrete class 30/20 parapet segments including handling and erection at bridge site as per Drawings	nr.	46		
C	Precast concrete class 30/20 sidewalk cover segments including handling and erection at bridge site as per Drawings	nr.	80		
D	Precast concrete class 30/20 lightingbase attached to parapet including handling and erection at bridge site as per Drawings	nr.	4		
8.13	Supply and install neoprene bearings as per Drawings and Specification.	nr.	16		
Page Total Carried to Bill No. 8 Collection					

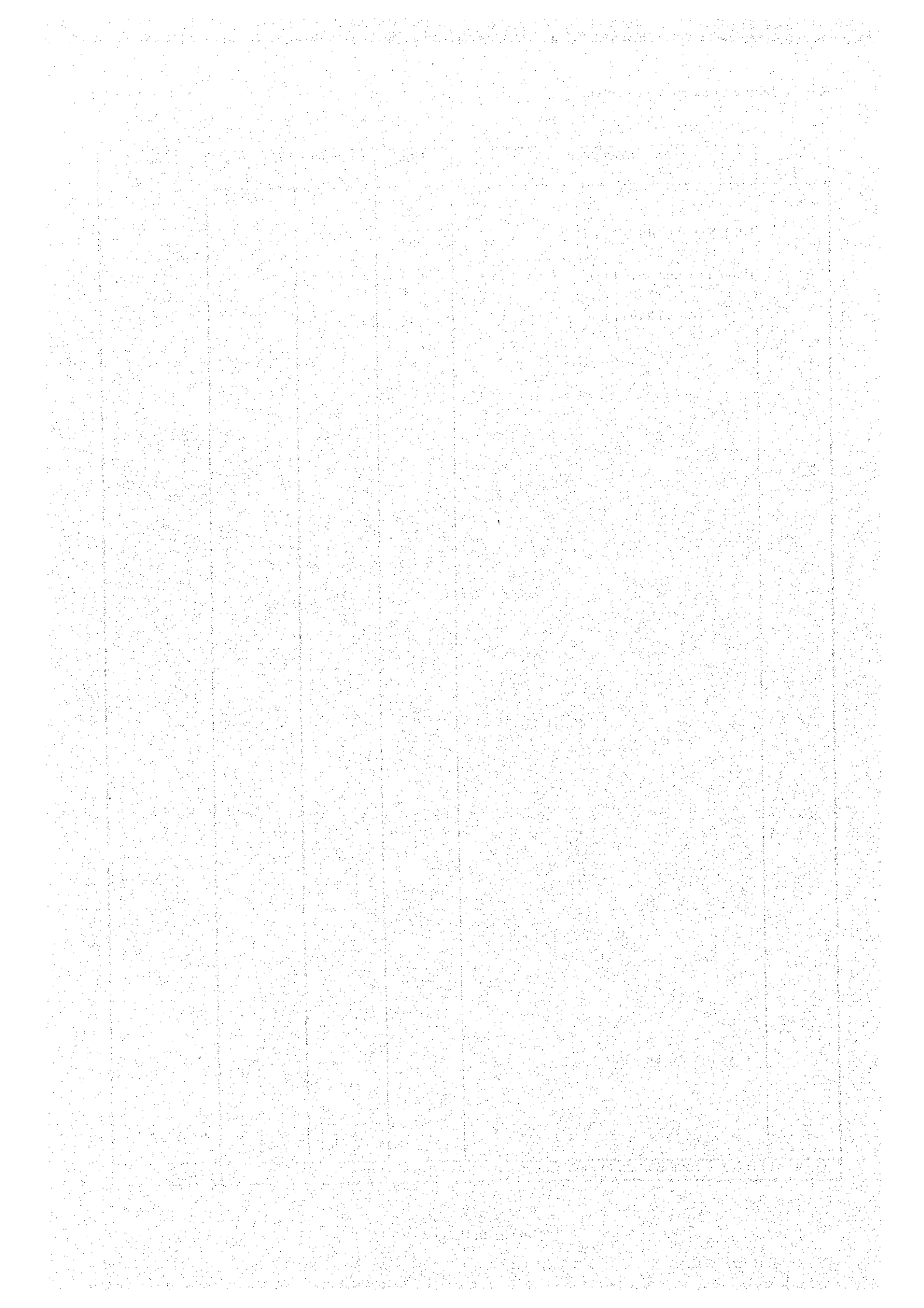
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	<p><u>BILL NO. 8 COLLECTION</u></p> <p>Page 1 carried forward</p> <p>Page 2 carried forward</p>				
Bill No. 8 Total Carried to Final Collection					



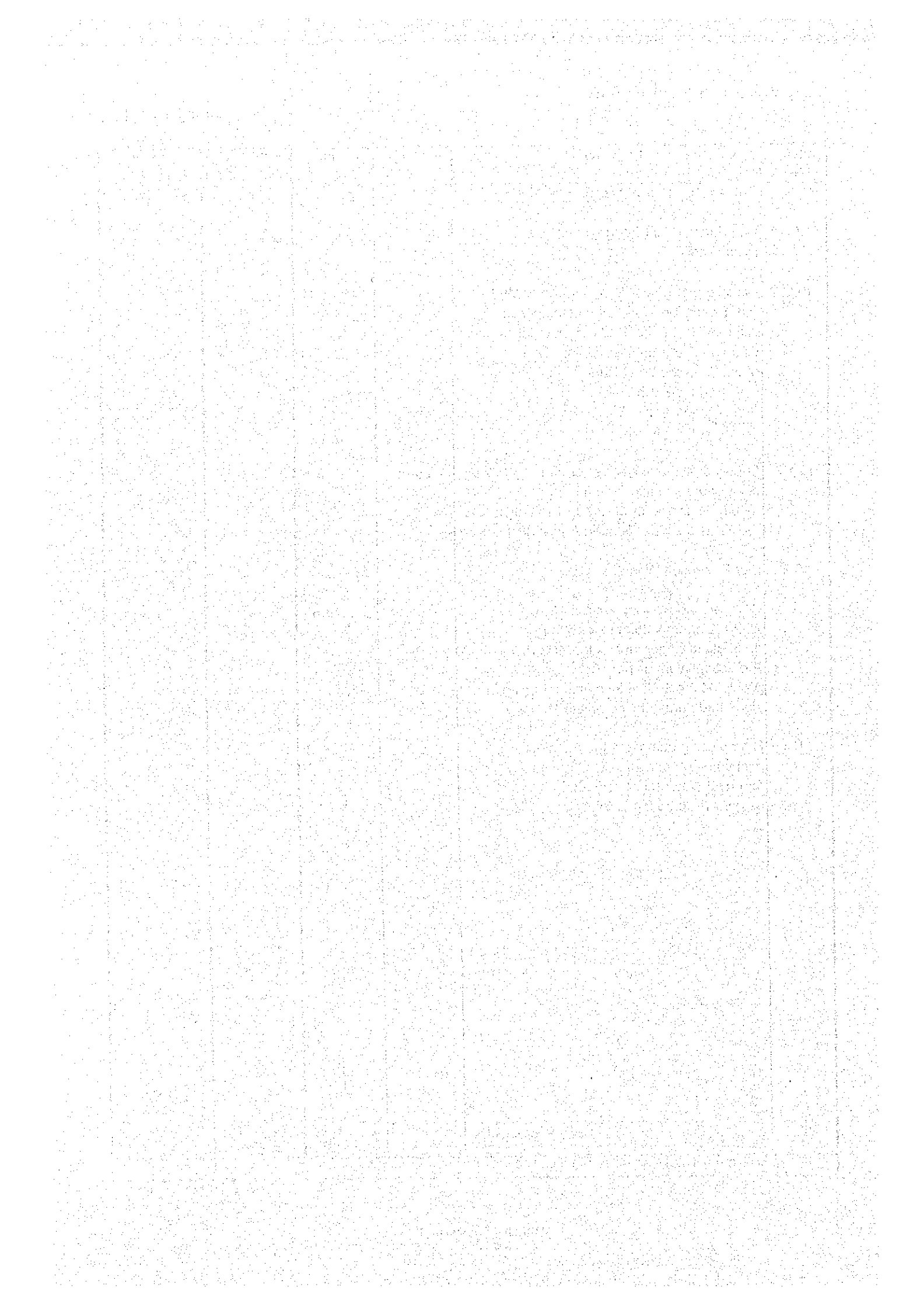
Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	Bill No. 9 - River Revetment				
9.1	<u>Dry Earthworks</u>				
9.1.1	Clearance of areas prior to dry excavation, reclamation or other fill operations from trees, debris and unsuitable material in accordance with the Specification including disposal as per Article 22.1.3.	sq.m	39		
9.1.2	Excavate topsoil not exceeding 150 mm deep and stockpile for reuse as per Specification Article 22.1.3.3.	sq.m	0		
9.1.3	Excavate in dry earthworks from slopes of Revetment areas and transport, place and compact in accordance with the Specification Article 22.1.3.				
A	- at bank and road embankment on the East Bank.	cu.m	320		
9.1.4	Excavate in dry earthworks from slopes of Revetment areas and dispose off site or stock pile as per direction of the Engineer in accordance with Article 22.1.3.6 of Specification.	cu.m	155		
9.2	<u>Wet Earthworks (dredging and hydraulic fill)</u>				
9.2.1	Dredge/excavate to form slopes of East Bank and stock pile or dispose off site the dredged material as per direction of the Engineer within 1km radius from the East Bank inclusive any containment bund in accordance with Article 22.2 of the Specific.	cu.m	805.2		
9.2.2	Supply & fill the existing Bank Slopes below water level to form the required bank slopes on the East Bank inclusive containment bunds as per Specification Article 22.2.	cu.m	4670.2		
Page Total Carried to Bill No. 9 Collection					

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
9.3	Slope Protection Works				
A	Concrete blocks with concrete Class 20/20 (350mm x 350mm x 350mm) on geotextile filter fabrics on Road embankment slope section of bank as per Article 22.3.4.1, 22.7 including trimming of slope and berm, etc. complete.	sq.m	758		
B	Concrete blocks with concrete Class 20/20 (250mm x 250mm x 250mm) on geotextile filter fabrics on River bed up to LWL section of bank as per Article 22.3.4.2, 22.7 including trimming of slope and berm, etc. complete.	sq.m	3551		
C	Fascine mattresses with riprap using dumped concrete block, minimum 700 mm thick, below PWD about -1.0 m as per Article 22.3.4.3, 22.7 including trimming of slope, etc. complete.	sq.m	3,297		
D	Riprap using dumped concrete block for the edge of a mattress as per Article 22.3.4.5, 22.7.	cu.m	197		
E	<u>Grassing as per Drawings and Specification Article 29.25.</u>	sq.m	nil		
F	Tree planting as per direction of the Engineer	nr.	nil		
Page Total Carried to Bill No. 9 Collection					

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	<p><u>BILL NO. 9 COLLECTION</u></p> <p>Page 1 carried forward</p> <p>Page 2 carried forward</p>				
	<p>Bill No. 9 Total Carried to Final Collection</p>				



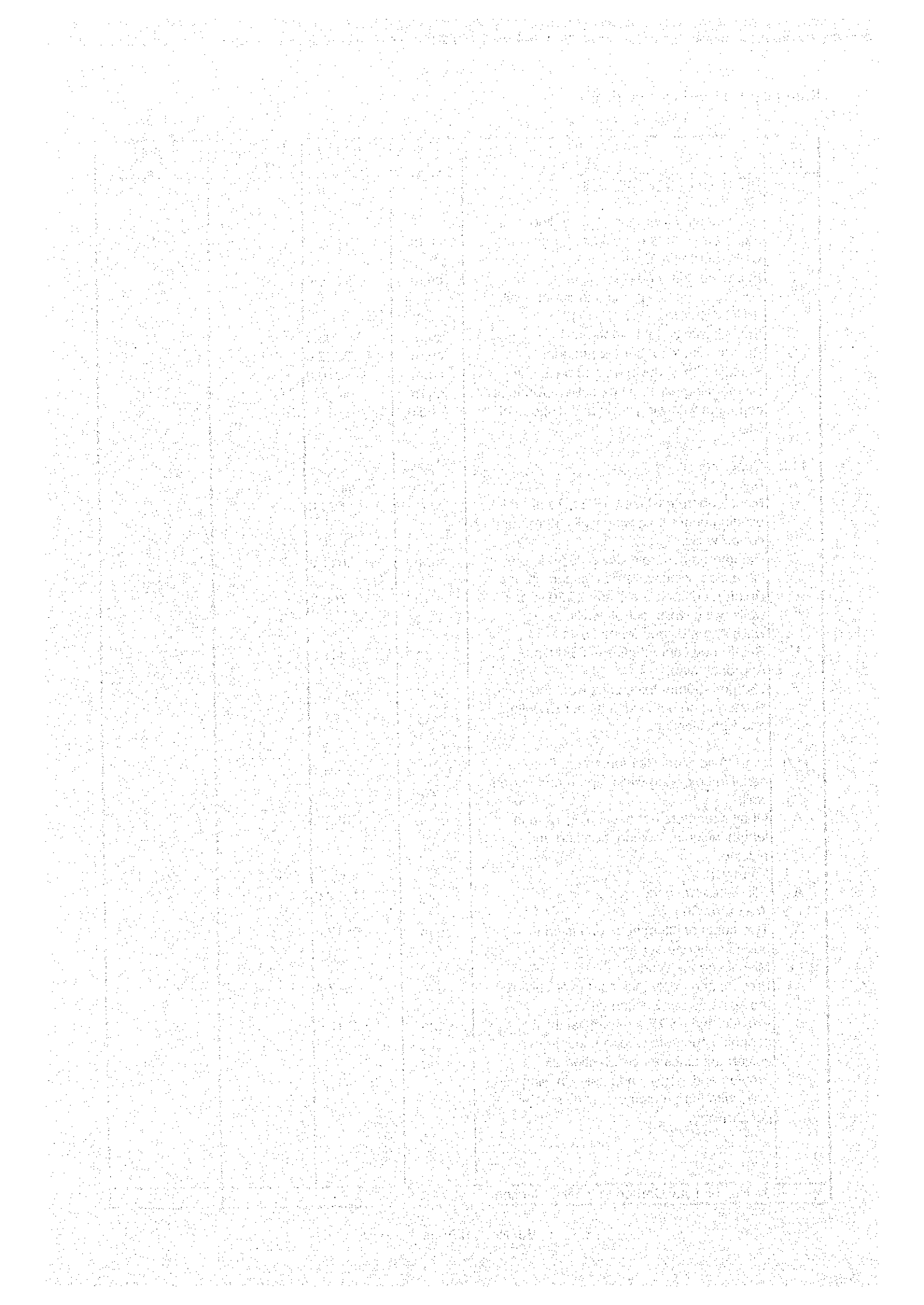
Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
Bill No. 10 - Pier protection Works					
10.1	Wet Earthworks (dredging and hydraulic fill)				
10.1.1	Dredge/excavate to form surface of MP2 Pier Protection Works and stock pile or dispose off site the dredged material as per direction of the Engineer within 1km radius from the West Bank in accordance with Specification Article 38.1	cu.m	941		
10.1.2	Supply & fill the existing river bed below water level to form the required surface for MP2 Pier Protection Works as per Specification Article 38.1	cu.m	165		
10.2	Pier Protection Works				
A	Concrete blocks with concrete Class 20/20 (250mm x 250mm x 250mm) on geotextile filter fabrics for MP2 Pier Protection Work as per Article 38.2.4.1, 38.4 including trimming of slope and berm, etc. complete.	sq.m	1,089		
B	Riprap using dumped concrete block, minimum 700 mm thick, for under water Pier Protection as per Article 38.2.4.2, 38.4	cu.m	3,843		
Bill No. 10 Total Carried to Final Collection					



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Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
Bill No. 11 - Box Culverts					
11.1	Excavation, Filling and Dismantling				
A	Excavate, trim and stockpile for box, wing walls, aprons and cut-off walls.	cu.m	nil		
B	Excavate, trim and dispose off site for box, wing walls, aprons and cut-off walls (PROVISIONAL QUANTITY)	cu.m	7015.0		
C	Backfill with suitable material	cu.m	709.0		
D	Backfill with local borrow material	cu.m	3222.0		
E	Backfill with 3" down graded brick chips	cu.m	1970.0		
F	Dismantling existing box culverts/bridges complete with wing walls and dispose off site.	sq.m (deck)	nil		
11.2	Concrete				
A	Brick soling	sq.m	nil		
B	Mass concrete Class U15/20, 75mm thick blinding under box, wing walls, apron and cut-off walls.	cu.m	525.0		
C	Reinforced concrete Class 25/20 in box base slab, wing walls bases, and aprons.	cu.m	2611.0		
D	Reinforced concrete Class 25/20 in box walls, wing walls, cut-off walls, head walls and attached fence posts.	cu.m	709.0		
E	Reinforced concrete Class 25/20 in Approach slab.	cu.m	841.0		
F	750mm/250mm thick brick work including plastering on both sides as per Drawings and Specification.	cu.m	nil		
11.3	High Yield Steel Reinforcement fixed to detail in box, wing walls, apron and cut-off walls :				
A	Of all diameters not exceeding 12 m in length including cutting, bending and placing.	tonne	883.5		
11.4	Formwork				
A	Fair face formwork	sq.m	11632.0		
11.5	Waterproofing				
A	Two coats of bituminous emulsion to buried concrete surfaces.	sq.m	2517.4		
11.6	Miscellaneous Works				
A	Provide and apply tack coat over culvert top slabs as per Section 28	sq.m	2517.4		
B	Provide and lay 75mm nominal thick asphaltic concrete wearing course over culvert top slabs as per Section 28	sq.m	2517.4		
C	Provide and install weep holes in wing walls with 50mm diameter PVC pipe as per Drawing.	nr.	432.0		
Bill No. 11 Total Carried to Final Collection					



Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	Bill No. 12 - Road Construction				
12.1	Site Clearance				
A	General Clearance in accordance with the Specification.	sq.m	615,384		
12.2	Earthworks				
A	Excavate topsoil not exceeding 200mm deep and stockpile for reuse. (PROVISIONAL QUANTITY)	cu.m	4,447		
B	Excavate suitable material from beneath embankments, below existing ground level after site clearance and below formation level in cuttings and dispose off Site. (PROVISIONAL QUANTITY)	cu.m	200,961		
C	Deposit and compact in voids formed by excavation in item no. 7.2B. (PROVISIONAL QUANTITY)	cu.m	13,812		
D	Excavate in existing embankment and place in the works (PROVISIONAL QUANTITY)	cu.m	7,011		
E	Provide, place and compact fill material in approach, embankment as per Section 29.	cu.m	405,280		
F	Dismantle. And remove existing road pavement including soling, herring bone bond brick layer, if any. (PROVISIONAL QUANTITY)	cu.m	3,989		
G	Trench Drain field Trial Construct temporary bunds and undertake field trial as described in Article 29.21 (Provisional item)	sum	nil		
H	Trench Drain Construction Construct trench drains as described in Article 29.17 in locations directed by Engineer (Provisional quantity).	m	nil		
12.3	Sub-Grade, Granular Sub-base and Base				
	Improved sub-grade 300mm thick as per Section 35. (Refer also to Section 29.2)	cu.m	73,495		
	Sub-grade preparation as per 29.27	sq.m	159,727		
	Sub-base as per Section 35.	cu.m	56,245		
	Base-course 200mm thick as per Section 35.	cu.m	4,451		
	Lower base-course 200mm thick as per Section 35.	cu.m	29,590		
	Asphalt treated base-course 100mm thick as per Section 35.	cu.m	11,994		
	Compacted earth as per Section 29.	cu.m	14,507		
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Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
12.4	<u>Miscellaneous Works for Road Medians</u>				
A	Concrete Class U15/20 for cast-insitu Curb bedding including forms as per Draws.	cu.m	nil		
B	250mm thick brickwork including plastering on both sides as per Drawings	cu.m	135		
C	Provide and precast concrete Curb as per Drawings.	m	1,631		
D	provide and fix water proof membrane as per Drawings.	sq.m	nil		
12.5	<u>Asphaltic Concrete Wearing Course</u>				
A	Prime coat as per Section 28	litre	60,831		
B	Asphaltic concrete 60mm thick as per section 28	sq.m	18,685		
C	Double surface dressing on hard shoulders as per Section 28	sq.m	10,322		
D	Scarify existing road surface and apply tack coat (PROVISIONAL QUANTITY)	sq.m	290		
E	Asphaltic concrete surface 50mm thick as per Section 28	sq.m	20,277		
E	Concrete pavement 250mm thick as per Section 28	sq.m	1,686		
F	Brick pavement as per Section 28.	sq.m	22,277		
G	Concrete pavement on stair plaza, as per Drawing.	sq.m	226		
12.6	<u>Road Finishing Works</u>				
A	Pedestrian stairways at bridge abutments, including railings and landings, as per Drawing.	nr.	4		
B	Drainage chutes at bridge, as per Drawing.	m	1,642		
C	Safety fencing, including support posts, as per Drawing.	m	1,382		
D	ROW marker posts, as per Drawing	nr.	395		
E	Edge blocks, precast concrete as per Drawing.	m	15,611		
F	White road markings laid in stripes, either continuous or broken in widths of 100, 150 and 200mm as per Specification and Drawing.	sq.m	288		
G	White road markings in hatching symbols and lettering as per Specification 7 Drawing.	sq.m	992		
H	Yellow road markings in stripes 100, 150 mm wide as per Specification & Drawing.	sq.m	3,002		
I	Regulatory or warning sign 900mm in diameter including post and foundation as per Specification & Drawing.	nr.	138		
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Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
J	Regulatory sign 2000mm x 750mm including posts and foundations as per Specification & Drawing.	nr.	nil		
K	text sign fixed to post of sign provided under item D above as per Specification & Drawing.	nr.	nil		
L	Direction sign, not more than 2 sq.m in area, including posts and foundations as per Specification & Drawing.	nr.	4		
M	Direction sign, between 2 sq.m and 6 sq.m in area including posts and foundations as per Specification & Drawing.	sq.m	55		
N	Kilometres posts as per Drawing	nr.	18		
O	Guard as per Drawing	m	4,043		
P	Cladding layer of clay, 500mm thick, on the slopes including trimming and compaction as per Specification Article 29.12	cu.m	45,427		
Q	Grassing as per Article 29.25	sq.m	90,843		
R	Tree plantation for shoulders as directed by the Engineer.	nr.	4,012		
S	Delineator	nr.	139		
T	Solid Sodding	sq.m	32,903		
U	Concrete Barrier	m	808		
V	Steel Barrier	m	114		
12.7	<u>Drainage</u>				
A	Pipe culvert 4@1200 mm deep (average) including excavation, back filling, top slab and foundations	m	28		
B	Pipe culvert 3@1200 mm deep (average) including excavation, back filling, top slab and foundations	m	27		
C	Pipe culvert 1200 mm deep (average) including excavation, back filling, top slab and foundations	m	1,072		
D	Pipe culvert 600 mm deep (average) including excavation, back filling, top slab and foundations	m	863		
E	Concrete pipe 600, 400 and 300 mm deep (average) including excavation, back filling top slab and foundations	m	1,435		
F	Ditch including excavation, back filling and foundations	m	2,599		
G	Catch basin, In-let and Out-let including excavation, back filling and foundations	nr.	286		
H	Concrete curb including foundations	m	2,268		
Page Total Carried to Bill No. 12 Collection					

Rupsa Bridge Construction Project

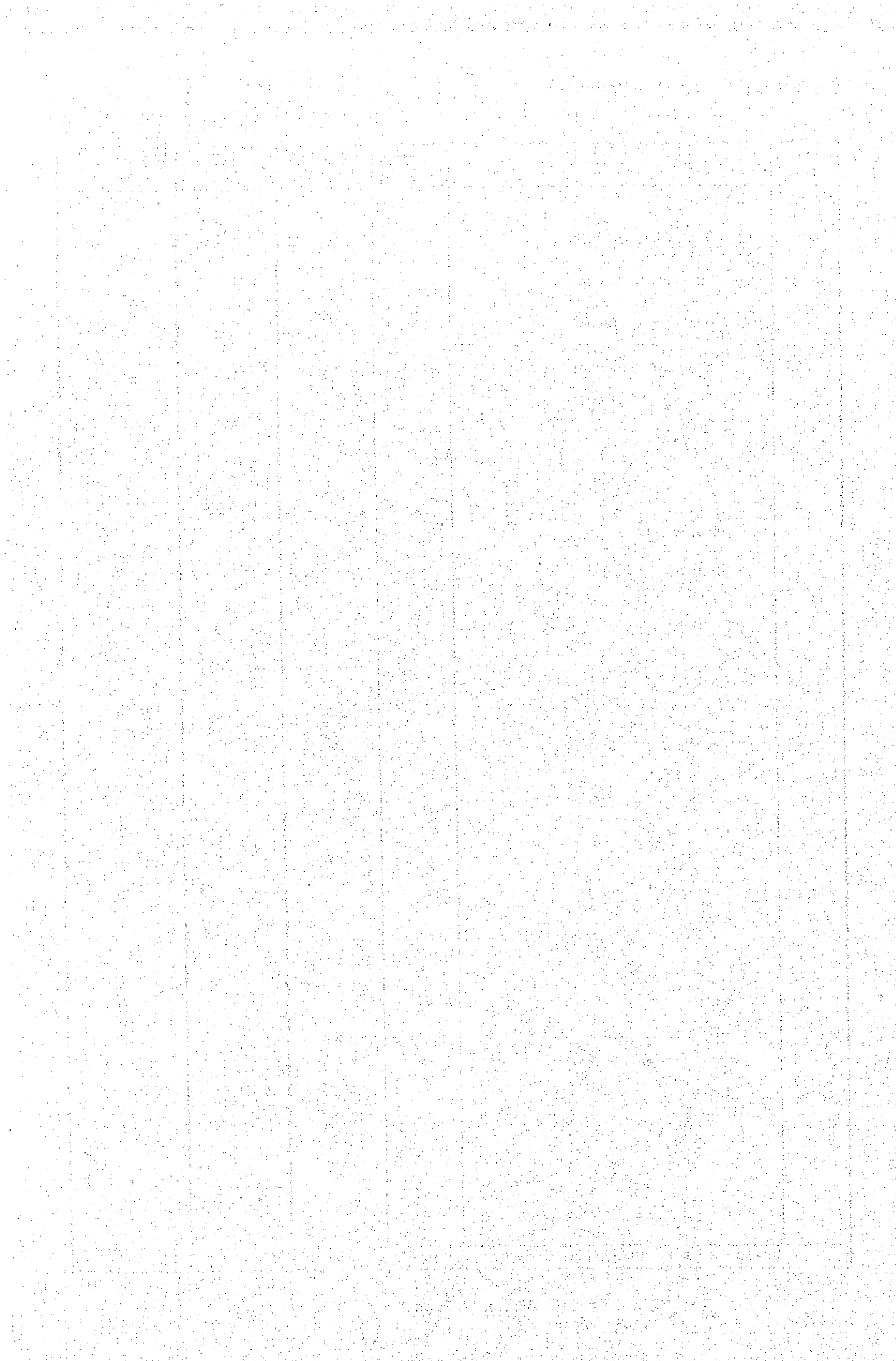
Bill of Quantities

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
12.7	<u>Construction Trials</u>				
A	Emabnkment Fill Compaction Trial for each different fill material as per Article 29.8 (Provisional quantity).	nr.	2		
B	Trial Section of Base course as per Article 35.4.5.	sum			
C	Asphaltic Concrete Paving Trial as per Article 28.6.11.	sum			
12.8	Cable ducts (150mm dia UPVC) and Markers Supplied and installed at locations to be directed by the Engineer as per Article 30.8. (Provisional quantity).	m	9,217		
Page Total Carried to Bill No.12 Collection					

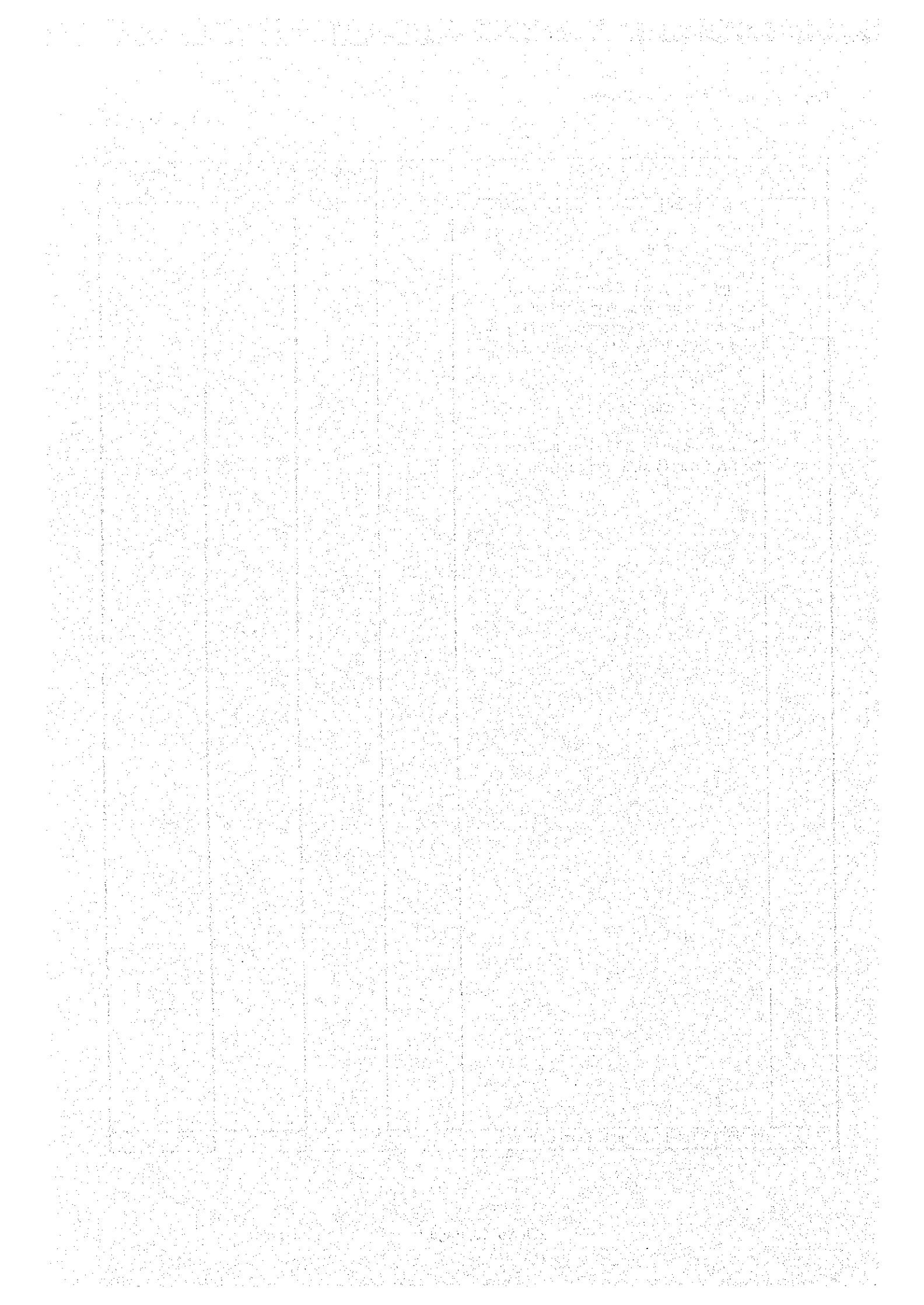
Rupsa Bridge Construction Project

Bill of Quantities

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	<u>BILL NO. 12 COLLECTION</u>				
	Page 1 total carried forward				
	Page 2 total carried forward				
	Page 3 total carried forward				
Bill No. 12 Total Carried to Final Collection					



Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
Bill No. 13 - Electrical & Utility Services					
13.1	Highway Lighting				
A	Design, supply, install and commission complete highway lighting installation over the bridges, intersections and approach road in accordance with Drawings and Specification Section 36.	sum			
13.2	Provision for utility Services				
	Provide and install 2-150 mm dia ducts for T & T cables within bridge deck.	m	8,160		
Bill No. 13 Total Carried to Final Collection					



Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	Bill No. 14 - Dayworks & Provisional Sums				
14.1	<u>Schedule of Daywork Rates</u>				
14.1.1	<u>Labour</u>				
	Crew engaged with pile installation equipment				
A	- operational	day			
B	- standing	day			
	Crew engaged with pier construction equipment				
C	- operational	day			
D	- standing	day			
	Crew engaged with deck erection equipment				
E	- operational	day			
F	- standing	day			
	Crew engaged with dredging equipment				
G	- operational	day			
H	- standing	day			
I	Expatriate heavy Plant Operator	hour			
J	Expatriate Light Plant Operator	hour			
K	Expatriate Tradesman	hour			
M	Local Plant Operator	hour			
N	Local Driver	hour			
O	Local Skilled	hour			
P	Local Semi-skilled	hour			
Q	Local Unskilled	hour			
R	Allowance for additional labour (PROVISIONAL SUM)	hour			
Page Total Carried to Bill No. 14 Collection					

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
14.1.2	Materials				
A	High yield Reinforcement	tonne			
B	Mild Steel Reinforcement	tonne			
C	Prestressing Tendons	tonne			
D	Structural Steel work - Rolled Sections	tonne			
E	Concrete Class 42/20	tonne			
F	Concrete Class 35/20	cu.m			
G	Concrete Class 30/20	cu.m			
H	Concrete Class 25/20	cu.m			
I	Concrete Class U15/20	cu.m			
J	Temporary Formwork	sq.m			
K	Allowance for additional material s (PROVISIONAL QUANTITY)	sum			
TOTAL FOR DAYWORK CONTRACTOR'S MATERIALS					
14.1.3	Contractor's Equipment				
	Pile installation equipment complete with				
A	- operational	day			
B	- standing	day			
	Pier construction equipment complete				
C	- operational	day			
D	- standing	day			
	Deck erection equipment complete with attendant plant				
E	- operational	day			
F	- standing	day			
	Dredging equipment complete with				
G	- operational	day			
H	- standing	day			
I	Tug barge 500 to 750 HP	hour			
J	Flat top barge 1000t capacity	hour			
K	250t Crawler Crane	hour			
L	100t Crawler Crane	hour			
M	25t Mobile crane	hour			
N	30 cu.m/hr. batching plant	hour			
O	Allowance for additional Contractor equipment (PROVISIONAL SUM)	sum			
TOTAL FOR DAYWORK CONTRACTOR'S EQUIPMENT					

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	<u>Daywork Summary</u>				
14.1.1	Sub-Total : Labour				
14.1.2	Sub-Total : Materials				
14.1.3	Sub-Total : Contractor's Equipment				
	TOTAL FOR DAYWORK				
Page Total Carried to Bill No. 14 Collection					

Rupsa Bridge Construction Project

Bill of Quantities

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
14.2	Schedule of provisional sums				
14.2.1	<u>Employer's Purchase of Engineer's Facilities (See Preamble, Paragraph 33)</u> Refurbish Engineer's Accommodation and hand over to the Employer as specified in Article 0.10 of the Specification, if ordered by the Engineer (Provisional sums)				
A	Engineer's quarters	nr.			
B	Engineer's/Employer's Mess (16 bed & bathroom units)	nr.			
C	Dormitory Quarters (25 units)	nr.			
14.2.2	Settlement by Contractor of telephone (refer Article 0.11 of the Specification) and other miscellaneous accounts incurred by the Engineer/Consultant as directed by the Engineer. The Contractor shall be reimbursed the account plus 2.5 percent.	Prov. Sum			
14.2.3	<u>Soils Investigation :</u> Laboratory testing off site of samples as directed by the Engineer Article 33.1(b)	Prov. Sum			
14.2.4	Provide copies of Codes and Standards as directed by Engineer, as per Specification Article 0.6.7.	Prov. Sum			
14.2.5	Bridge Toll Systems Installation as ordered by the Engineer following approval of final Design (See Item 1.5)	Prov. sum			
14.2.6	Provision for future 760 mm dia gas pipe and 150 mm dia LPG pipe under the bridge deck (details to be confirmed by Engineer).	Prov. Sum			
14.2.7	<u>Contingencies</u> Allow Provisional Sum for physical contingencies to be expended as directed by the Engineer.				
Page Total Carried to Bill No. 14 Collection					

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	BILL NO. 14 COLLECTION				
	<u>Page 3 carried forward</u> (Day works)				
	Page 4 carried forward (Provisional Sums)				
Bill No. 14 Total Carried to Final Collection					

Rupsa Bridge Construction Project

Bill of Quantities

Item No.	Description	Unit	Quantity	Unit Price (Taka)	Amount (Taka)
	<u>FINAL COLLECTION</u>				
	Bill No. 1 – General and Preliminary Items				
	Bill No. 2 – Soils Investigation				
	Bill No. 3 – Main Bridge Substructure				
	Bill No. 4 – Main Bridge Superstructure				
	Bill No. 5 – Approach Br. Substructure				
	Bill No. 6 – Approach Br. Superstructure				
	Bill No. 7 – Hatia Canal Bridge				
	Bill No. 8 – Molonghata Canal Bridge				
	Bill No. 9 – River Revetment				
	Bill No. 10 – Pier Protection Works				
	Bill No. 11 – Box Culverts				
	Bill No. 12 – Road Construction				
	Bill No. 13 – Electrical & Utility Services				
	Bill No. 14 – Dayworks & Provisional Sums				
Total Carried to Form of Tender.					

JICA