



**NAYA RAIPUR DEVELOPMENT AUTHORITY**

**Tender Document for the  
Construction of UGR & Pumping house and Allied works at  
sector-1 & 24 of Naya Raipur**

**(Following Three-Envelope Tender Procedure)**

**Schedule – A  
Price Tender  
To be submitted in ENVELOPE-3**

**NIT No.: 91/UGR&PH/EE-PHE/SE(E)/CE(E)/NRDA/2016-17, Naya Raipur**

**Dated: 04.082016**

**Issued by:** **Chief Executive Officer,**  
Naya Raipur Development Authority (NRDA)  
Paryavas Bhawan, North Block Sector- 19,  
Naya Raipur- 492 002, Chhattisgarh  
Tel No: + 91 771 2512500; Fax No.: +91 771 2512400.  
Website: [www.nayarapur.gov.in](http://www.nayarapur.gov.in)

## Tender Document Contains

- (a) Only schedule "A" and Section-I of schedule "D" are to be filled & signed by the tenderer  
 (b) All the certificates as per pre qualification criteria shall be appended with relevant forms of schedule "D"

### 1. PART ONE (NRDA F-1)-(Attached herewith, to be submit along the tender)

#### Part (A)

- a) Press Notice  
 b) Detailed NIT

#### Part (B)

##### a) Schedule-A

- (i) Cost Abstract  
 (ii) Bill of Quantities

- b) Schedule-B –NIL  
 c) Schedule-C –NIL  
 d) Schedule-D

##### Section-I..... Technical tender forms

- (i) Letter of Technical Tender  
 (ii) Tenderer's Information Sheet  
 (iii) Annual Turnover  
 (iv) Specific Construction Experience  
 (v) Declaration  
 (vi) Check list for Technical tender evaluation  
 (vii) Return Of EMD  
 (viii) Integrity Pact

##### Section –II .....Scope of work

##### Section –III..... Technical specifications of work

##### Section –IV..... Special Conditions of Contract

##### Section –V..... List of approved makes

##### Section –VI..... Drawings

- e) Schedule-E  
 f) Schedule-F

### 2. PART TWO (NRDA F-2/3 )-Standard form (Not Attached herewith, and not to be submitted along the tender)

Important note: - Link site <http://nayaraipur.com/documents/gcc.pdf>

1. General Guidelines
2. Tender
3. General rules and directions
4. Conditions of contract
5. Clauses of contract
6. Model rules relating to labour, water supply and sanitation in labour camps safety code
7. Contract forms
  - (a) Draft Format for Performance Security
  - (b) Earnest Money Deposit Form (Bank Guarantee)
  - (c) Format of Contract Agreement
  - (d) Draft Format for Performance Guarantee for Water Proofing and Anti-termite Works
  - (e) Indemnity Bond
  - (f) Indenture Bond
  - (g) Notice for Appointment of Arbitrator
8. Proforma of schedules (Schedule 'A' to Schedule 'F')

Signature of Contractor.....

Signature of NRDA.....

## Naya Raipur Development Authority (NRDA) Raipur, Chhattisgarh

### Document details

Name of work : "Construction of UGR & Pumping house and Allied works at sector-1 & 24 of Naya Raipur".

Name of Tenderer:

### Details

- a) Cost of Tender Document : Rs
- b) EMD : Rs

Signature of Tenderer

Date:\_\_\_\_\_

Signature of Contractor.....

Signature of NRDA.....

Cost Abstract

Construction of UGR & Pumping house and Allied works at sector-1 & 24 of Naya Raipur

S.No.	Component of Work	Amount in INR	Amount In Words
A	Construction of Pump house at sector-1 & 24	Rs. -	
B	Construction of UGR at sector-1 & 24	Rs. -	
C	Compound wall	Rs. -	
D	Cement Concrete Road	Rs. -	
	<b>Total Cost of Project</b>	<b>Rs. -</b>	
<b>Note: Minimum quoted rate will be considered for same description of Items.</b>			

Bill of Quantity						
Construction of UGR & Pumping house and Allied works at sector-1 & 24 of Naya Raipur						
A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
1	Earth work in excavation of foundation for structures as per drawing and technical specification including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material etc. and as per relevant clause of section 300 & 2100.					
a)	up to 3 m depth	Cum	997.00			Rs. -
b)	3.0 m to 6.0 m depth	Cum	390.00			Rs. -
2	Filling available excavated earth in trenches, plinth sides of foundation in layers not exceeding 20cm. in depth including consolidation of Each layer by ramming watering, lead upto 50m and lift up to 1.5m in all kinds of soils	Cum	343.00			Rs. -
3	Providing and laying mechanically mixed cement concrete with crushed stone aggregate excluding centering and shuttering (with 40mm nominal size graded stone aggregate)					
a)	RCC Grade M-15	Cum	38.20			Rs. -

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
4	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including concrete laying, cost of centering, shuttering, finishing and including Admixtures in recommended proportions as per IS9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-20 grade design mix reinforced cement concrete by using 405 kg. of cement per Cum of concrete. All work upto plinth level excluding the cost of reinforcement.					
a)	RCC Grade M-25	Cum	176.20			Rs. -
5	Providing and laying Plain /Reinforcement cement concrete in substructure or complete section including cost of form work staging/bracing and shuttering complete as per drawing and technical specification and as per relevant I.S.Standard (Height above average ground level).					
a)	RCC Grade M-25	Cum	59.70			Rs. -
6	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating Each deposited layer by ramming and watering, including dressing etc. complete.(area filling to level upto plinth )	Cum	67.00			Rs. -

## (A) Pump House

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
7	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:					
a)	Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.	Sqm	181.00			Rs. -
8	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:					
a)	Thermo-Mechanically treated bars FE 500D	kg	21218.00			Rs. -
9	Providing and placing in position suitable PVC water stops conforming to IS: 12200 for construction / expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc, complete:Serrated with central bulb (225 mm wide, 8-11 mm thick)	Rm	248.00			Rs. -

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
10	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	54.00			Rs. -
11	Providing and fixing in position M.S. ladder 0.50M wide consisting of 75x10mm M.S. flats as stringers and 16mm dia. M.S. bars in double rows as steps placed at 25 cm/c including cost of material and labour involved, welding, anchoring and applying 3 coat of anti-corrosive paint, etc. complete as directed by Engineer-in-charge	Rm	14.00			Rs. -
12	Providing and laying 15mm thick water proof plaster with 1:4 (1 cement :4 course sand) and with water proof compound. after that the water proofing treatment for vertical and horizontal surface of tank by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/Sqm.mixed with water proofing cement compound @ 0.253 kg/Sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/Sqm mixed with water proofing cement compound @ 0.126 kg/Sqm. this layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	328.00			Rs. -



## (A) Pump House

<b>A Pump House</b>						
<b>Sr. No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate in INR</b>	<b>Rate in words (in INR)</b>	<b>Amount in Rs.</b>
13	Extra for providing and mixing water proofing materials in cement plaster work in proportion as recommended by manufacturer.	Kg	1887.00			Rs. -
14	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.	kg	480.00			Rs. -
15	Providing and fixing steel door/ window with M.S. sheet 1mm thick, frame of angle iron, diagonal braces of angle/ flat iron of suitable size, 3.00 mmM.S. gusset plates at junctions and corners, all necessary fittings complete including applying a priming coat of red oxide zinc chromate primer.	Kg	226.00			Rs. -

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
16	Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.					
a)	Angle-iron frames	Kg	21.00			Rs. -
17	Providing and fixing factory made ISI marks steel doors, windows and ventilators side/ top/ centre hung made up of standard rolled steel section conforming to IS 1038:1968 (viz. F7D, F4B, K11 and K12B etc.), joints mitred and flash butt and sash bars tenoned and riveted/ welded with 10 cm long lugs of size 15x3mm embedded in cement concrete block 15x10x10 cms of 1:3:6 (1 cement :3 Coarse sand: 6 graded stone aggregate 20 mm nominal size) or rawl plugs and screws or with bolts and nuts as required including providing and fixing of hinges, pivotshandles, pegs, stays, rolling devices, locking arrangements, spring catch etc., as required complete including applying a priming coat of red oxide zinc chromate primer.	Kg	236.00			Rs. -
18	Providing stainless <b>steel railing</b> / grill made of S.S. flats, hollow S.S. pipe or square/ rectangular sections of approved design fixing in stair case, balcony or other places with metal fasteners and stainless steel bolts etc complete.					
a)	SS Grade 204	Kg	186.00			Rs. -

## (A) Pump House

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
19	Providing and fixing M.S. bright finished or black enameled Butt hinges IS : 1341 marked with necessary iron screws:					
a)	50x37x1.50 mm	Each	24.00			Rs. -
20	Providing and fixing M.S. bright finished or black enameled Tower bolts (Barrel type) with necessary iron screws:					
a)	100 mm	Each	24.00			Rs. -
21	Providing and fixing M.S. bright finished or black enameled sliding door bolts with bolts, nuts and necessary iron screws:					
a)	250x16mm	Each	12.00			Rs. -
22	Providing and fixing M.S. bright finished or black enameled handles with necessary iron screws:					

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
a)	75 mm	Each	12.00			Rs. -
23	Supplying and fixing rolling shutter of approved makes made of M.S. laths interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and out side locking with push and pull arrangement complete but excluding the cost of top cover and spring.					
a)	80x1.25mm M.S. Laths	Sqm	18.00			Rs. -
24	Providing and fixing 27.5cm long wire spring for rolling shutters.	Each	4.00			Rs. -
25	Providing and fixing M.S. sheet top cover for rolling shutter					
a)	1.25mm thick	Sqm	18.00			Rs. -
26	Providing and fixing ball bearing for rolling shutters.	Each	4.00			Rs. -
27	Providing and fixing mechanical device chain and crank operation for operating rolling shutters	set	2.00			Rs. -

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
28	Providing and fixing M.S. fan clamp/ hook for ceiling fan made out of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop.	Each	10.00			Rs. -
29	KOTA stone slab 25mm thick in risers and treads of steps, skirting dado and pillar laid in 12mm (Average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete. (single stone is to be used for riser and treads of steps and the width of stone for skirting and dado shall be equal to the height of skirting/ dado up to length of 1.0 M.)	Sqm	8.00			Rs. -
30	Extra for nosing in steps and treads of kota stone slab.	Metre	30.00			Rs. -
31	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix:					
a)	In Cement Mortar 1:4 (1 cement : 4 fine sand)	Sqm	654.00			Rs. -
32	Providing and making 12mm thick cement plaster of mix:					
a)	In Cement Mortar 1:4 (1 cement : 4 fine sand)	Sqm	486.00			Rs. -
33	6mm thick cement plaster of mix: (ceiling)					

<b>A Pump House</b>						
<b>Sr. No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate in INR</b>	<b>Rate in words (in INR)</b>	<b>Amount in Rs.</b>
a)	In Cement mortar 1:3 (1 cement : 3 fine sand)	Sqm	360.00			Rs. -
34	Providing and fixing chicken mesh weighting not less than 250 gms/Sqm as per IS : specification in the required width with 40mm long steel nails on vertical and horizontal surface near R.C.C. and brick wallsjunctions including scaffolding and all lead and lifts etc. complete before plastering upto 10mts in height.	Sqm	300.00			Rs. -
35	Plinth protection: Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.	Sqm	84.00			Rs. -

## (A) Pump House

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
36	Distemping with acrylic washable distemper to give an even shade					
a)	on new work ( Two or more coats )	Sqm	1014.00			Rs. -
37	Painting exterior surface with PREMIUM ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc.complete with:					
a)	On new work (Two or more coats applied @ 1.43 ltr/ 10 Sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 Sqm)	Sqm	486.00			Rs. -
38	Painting on new work (two or more coats) to give an even shade with:					
a)	Premium synthetic enamel paint	Sqm	68.00			Rs. -

A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
39	Providing and laying water proofing treatment in sunken portion of WCs,bathroom, kitchen etc., by applying cement slurry mixed with waterproofing cement compound consisting of following applications includingsurface preparation: i) First layer of slurry of cement @ 0.488 kg/Sqm mixed with waterproofing cement compound @ 0.253 kg/Sqm. This layer will be allowed toair cure for 4 hours. ii) Second layer of slurry of cement @ 0.242 kg/Sqm mixed with waterproofing cement compound@ 0.126 kg/Sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours.The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	8.00			Rs. -
40	Providing and laying ceramic glazed floor tiles conforming to IS : 15622 of approved size, make, colour, shade laid on 20 mm thick Cement Mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement mixed with matching pigment etc., complete.					
a)	Size 300x300mm	Sqm	8.00			Rs. -
41	Providing and fixing ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per Sqm including pointing in white cement mixed with matching pigment complete.					
a)	Size above 200x300mm	Sqm	34.00			Rs. -



A Pump House						
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
42	25 mm thick KOTA stone slab flooring over 20mm thick base of cement mortar 1:4 laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including grinding rubbing and polishing etc. complete (Area of slab to be over 0.20 Sqm and upto 0.50 Sqm)	Sqm	81.00			Rs. -
43	Cement plaster skirting upto 30 cm. height with cement mortar 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement including rounding of junction with floor.					
a)	18 mm thick in two layers of 12mm and 6mm	Sqm	15.00			Rs. -
44	Providing, lowering, laying, alingning, fixing in position and testing & commissioning for Hand operated overhead traveling crane, capacity 3 Tonnes (single girder type crane having Horizontal and longitudinal motion along the entire length of pump house with crane rail section CR-60, Girders I-section ISMB-350 , chain pulley etc. complete as per direction of Engineer in Charge.	Kg.	12000.00			Rs. -
45	DPC: Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including formwork.	Cum	4.00			Rs. -
46	Applying a coat of hot bitumen VG-10 using @ 1.7kg/ Sqm on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	Sqm	39.00			Rs. -

<b>A Pump House</b>						
<b>Sr. No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate in INR</b>	<b>Rate in words (in INR)</b>	<b>Amount in Rs.</b>
47	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in:					
a)	Cement Mortar 1:6 (1 cement : 6 coarse sand)	Cum	130.00			Rs. -
<b>B Internal Plumbing Works</b>						
48	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes on wall surface, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.					
a	20 mm nominal dia .Pipes.	metre	22.00			Rs. -
b	32mm nominal dia .Pipes. (for distribution water pipe)	metre	20.00			Rs. -
49	Providing and fixing on wall face UV stabilized Unplasticised Rigid PVC pipes ( single socketed) having 3.2 mm wall thickness conforming to IS : 13592 ( 4 kg/sqcm) including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion					

<b>A Pump House</b>						
<b>Sr. No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate in INR</b>	<b>Rate in words (in INR)</b>	<b>Amount in Rs.</b>
<b>a</b>	110 mm dia pipe. (for Sewerage down pipe)	metre	12.00			Rs. -
<b>50</b>	Providing and fixing on wall face UV stabilized Unplasticised - PVC moulded fittings/ accessories having 3.2mm wall thickness for Rigid PVC pipes conforming to IS : 13592 (heavy) jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.					
<b>a</b>	"P" trap 110mmx110mm long	Nos.	2.00			Rs. -
<b>b</b>	Vent cover; 110 mm	Nos.	2.00			Rs. -
<b>c</b>	Nahani trap 110x75mm	Nos.	4.00			Rs. -
<b>d</b>	Plain bend; 110 mm	Nos.	4.00			Rs. -
<b>e</b>	Tee/ Tee with door/ Bend 45°/ Bend 90,110 mm	Nos.	4.00			Rs. -
<b>51</b>	Providing and fixing vitreous china water closet squatting pan (Indian type) including cutting and making good the walls and floors wherever required:					

<b>A Pump House</b>						
<b>Sr. No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate in INR</b>	<b>Rate in words (in INR)</b>	<b>Amount in Rs.</b>
<b>a</b>	White Orissa pattern W.C. pan of size 580x440 mm	each	2.00			Rs. -
<b>52</b>	Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required					
<b>a</b>	White wall hung type	each	2.00			Rs. -
<b>53</b>	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :					
<b>a</b>	20 mm nominal bore	each	4.00			Rs. -
<b>b</b>	32 mm nominal bore	each	2.00			Rs. -
<b>54</b>	Providing and fixing 15 mm nominal bore Brass bib/stop cock of approved quality and weighting not less than 400 grams):					
<b>a</b>	Bib cock	each	4.00			Rs. -

<b>A Pump House</b>						
<b>Sr. No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate in INR</b>	<b>Rate in words (in INR)</b>	<b>Amount in Rs.</b>
<b>b</b>	Stop cock	each	2.00			Rs. -
<b>55</b>	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required					
<b>a</b>	Bottle trap set with extension pipes	each	2.00			Rs. -
<b>56</b>	Providing and fixing stainless steel drain jali of approved make/quality.	each	4.00			Rs. -
<b>57</b>	Providing and placing on terrace (at all levels) polyethylene water storage tank ISI marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank	litre	1000.00			Rs. -
<b>58</b>	Constructing masonry Chamber 30x30x50 cm, inside with modular Fly Ash bricks of 35 kg/ cm <sup>2</sup> in cement mortar 1:4 (1 cement : 4 coarse sand) for stop cock, necessary excavation foundation concrete 1:5:10 ( 1 cement : 5 fine sand:10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design :	each	2.00			Rs. -

<b>A Pump House</b>						
<b>Sr. No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate in INR</b>	<b>Rate in words (in INR)</b>	<b>Amount in Rs.</b>
<b>59</b>	Providing and laying Reinforced Cement Concrete pipe NP 3 / prestressed concrete pipe on first class bedding. (Laying Reinforced cement concrete pipe NP3 /prestressed concrete pipe for culverts on first class bedding of granular material including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets).					
a)	600 mm dia	meter	10.00			Rs. -
<b>60</b>	Providing and constructing soak pit 1.20x1.20x1.20m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	Each	10.00			Rs. -
	<b>Sub Total Of Pump House work</b>					<b>Rs. -</b>

**Note: Minimum quoted rate will be considered for same description of Items.**

**Construction of UGR & Pumping house and Allied works at sector-1 & 24 of Naya Raipur**

<b>Construction of UGR &amp; Pumping house and Allied works at sector-1 &amp; 24 of Naya Raipur</b>						
<b>B</b>	<b>UGR 24</b>					
Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
1	Earth work in excavation of foundation for structures as per drawing and technical specification including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material etc. and as per relevant clause of section 300 & 2100.					
a)	up to 3 m depth	Cum	1161.00			Rs. -
b)	3.0 m to 6.0 m depth	Cum	117.00			Rs. -
2	Filling available excavated earth in trenches, plinth sides of foundation in layers not exceeding 20cm. in depth including consolidation of each layer by ramming watering, lead upto 50m and lift up to 1.5m in all kinds of soils	Cum	731.00			Rs. -

Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
3	Providing and laying mechanically mixed cement concrete with crushed stone aggregate excluding centering and shuttering (with 40mm nominal size graded stone aggregate)					
a)	M-15 Grade	Cum	45.60			Rs. -
4	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including concrete laying, cost of centering, shuttering, finishing and including Admixtures in recommended proportions as per IS9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-20 grade design mix reinforced cement concrete by using 405 kg. of cement per cum of concrete. All work upto plinth level excluding the cost of reinforcement.					



Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
a)	RCC Grade M30	Cum	185.60			Rs. -
5	Providing and Laying plain/ Reinforcement cement concrete in super structure ring beam Dom, walls, beam etc. section including cost of form work staging/ bracing and shuttering complete as per drawing and technical specification and as per relevant clauses of I.S. Standard including pumping charges of concrete.					
	RCC Grade M30	Cum	56.50			Rs. -
6	Providing and fixing formwork i/c centering shuttering, strutting, staging, propping, bracing etc. complete and i/c removal of formwork.					
a	Foundation /footing /column base/ plinth beam of any shape and size up to plinth level	Sqm	14.00			Rs. -

Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
7	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:					
	Thermo-Mechanically treated bars FE 500D	kg	20572.00			Rs. -
8	Providing and placing in position suitable PVC water stops conforming to IS: 12200 for construction / expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc, complete:Serrated with central bulb (225 mm wide, 8-11 mm thick)	Rm	314.00			Rs. -
9	Providing, hoisting and fixing in position C.I. manohole, frame and cover of best quality and of required size and shape with locking arrangements including applying 2coats and anti-corrosive paint, etc. complete.					
a)	90 x 60 cm size and weight 35 kg	Each	2.00			Rs. -

Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
10	Providing, hoisting and fixing in position inverted "J" type 100mmdia. C.I. Cowl type ventilators with mosquito proof aluminium mesh at top including applying 2 coats of anti-corrosive paint, etc. complete as directed by Engineer-in-charge, weighing not less than 35 Kg.	Each	12.00			Rs. -
11	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	20.00			Rs. -

Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
12	Providing and fixing in position M.S. ladder 0.50M wide consisting of 75x10mm M.S. flats as stringers and 16mm dia. M.S. bars in double rows as steps placed at 25 cmc/c including cost of material and labour involved, welding, anchoring and applying 3 coat of anti-corrosive paint, etc. complete as directed by Engineer-in-charge	Rm	16.00			Rs. -
13	Providing and laying 15mm thick water proof plaster with 1:4 (1 cement :4 course sand) and with water proof compound. after that the water proofing treatment for vertical and horizontal surface of tank by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm.mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. this layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	905.00			Rs. -

Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
14	Extra for providing and mixing water proofing materials in cement plaster work in proportion as recommended by manufacturer.	Kg	876.00			Rs. -
15	Providing, hoisting and fixing in position C.I. manohole, frame and cover of best quality and of required size and shape with locking arrangements including applying 2 coats and anti-corrosive paint, etc. complete.					
	90 x 60 cm size and weight 35 kg	Each	2.00			Rs. -
16	Providing and laying flanged C.I. standard specials such as tees, bends collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :	quintal	2.70			Rs. -

Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
17	Providing and Supplying of following M.S. pipes / M.S. flanged pipes as per IS specifications with inside & outside epoxy coating as per relevant IS code, duly tested for usage in Drinking water inclusive of all materials, Central, State and Municipal taxes and duties inspection charges, transit insurance, loading/ unloading FOR site unloading & stacking etc. complete as per direction of Engineer-in-Charge.					
a)	Dia. of pipe 219.10 mm (O.D) Thickness of pipe 8.20 mm	Rm	10.00			Rs. -
18	Labour Only for lowering & laying of M.S. Pipes on pedestals or chairs upon prepared formation including all site arrangements complete.					
a)	5 mm to 8.2 mm thick.					
i	Up to 250 mm. dia.	Rm	12.00			Rs. -

Sr. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
19	Providing & fixing cast iron butterfly valve including jointing & testing with cost of jointing material such as bolts, nuts and rubber insertion all complete as per IS : 13095-1991. <b>(Valves above 200mm dia. should be gear operated)</b> complete in all respect as per technical specification and as per direction of Engineer NRDA.					
a)	200 mm dia. (Class -PN 1.6 rating) should be gear operated)	No	2.00			Rs. -
20	Providing and fixing wire mesh 25x 25x16 gauge anchored on all sides on angle frame of 25 x 25 x 3 mm with intermediate MS angle supports including providing and fixing mosquito proof steel jali etc. as per drawings and specifications complete	Kg	8.00			Rs. -
<b>Sub Total of UGR Work</b>						Rs. -

**Note: Minimum quoted rate will be considered for same description of Items.**

## Bill of Quantity

## Construction of UGR &amp; Pumping house and Allied works at sector-1 &amp; 24 of Naya Raipur

Construction of UGR & Pumping house and Allied works at sector-1 & 24 of Naya Raipur						
<b>C Compound wall</b>						
Sl. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
1	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	Sqm	560.00			Rs. -
2	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits including dewatering all complete.					
	In all types of soils such as moorum, sand, sandy silt, clay, black cotton soil, kankar etc					
	Depth of excavation up to 1.5 m	Cum	364			Rs. -
3	Back filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	Cum	336.00			Rs. -



Sl. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
4	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.	Cum	84			Rs. -
5	Providing and laying nominal mix <b>cement concrete</b> with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of form work.					
a)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate)	Cum	21.00			Rs. -
6	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of form work.					
a)	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size).	Cum	1.00			Rs. -
7	Providing and laying design mix reinforcement cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto floor five level excluding cost of reinforcement and form work.					

## (C) Compound Wall

Sl. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
a)	M-20 (using minimum cement 390 Kg/Cum concrete)	Cum	6.80			Rs. -
8	DPC: Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including formwork.	Cum	127.40			Rs. -
9	Reinforcement :Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete:					
a)	Thermo-Mechanically treated bars	Kg	10730.00			Rs. -
10	Random rubble masonry with hard stone in foundation and plinth in Cement Mortar 1:6 (1 Cement : 6 Coarse Sand) including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand: 12 stone aggregate 20mm nominal size) at plinth level.	Cum	196.20			Rs. -

Sl. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
11	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level in cement mortar (1 cement : 6 coarse sand) including leveling up with cement concrete 1:6:12 (1 Cement : 6 Coarse Sand : 12 stone aggregate 20mm nominal size) at window sills, ceiling level and like.	Cum	20.50			Rs. -
12	Pointing on stone work with cement Mortar 1:3 (1 cement : 3 fine sand)					
a)	Ruled pointing	Sqm	279.00			Rs. -
13	Centring and shuttering at all levels including strutting, propping etc. and removal of form for :					
a)	Foundations, footings, base of columns and plinth beam in any shape and size.	Sqm	127.00			Rs. -
b)	Beams, lintels, cantilevers & walls	Rm	9.00			Rs. -
14	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat of red oxide zinc chromate primer..					

Sl. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
a)	Angle 65x65x6 @ 5.0Kg/m	Kg	17760.00			Rs. -
15	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.					
a)	Made of G.I. wire of dia 4 mm	sqm	222.00			Rs. -
16	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of red oxide zinc chromate primer.					
a)	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	Kg	1080.00			Rs. -
17	Painting on new work (two or more coats) to give an even shade with:					
a)	Satin synthetic enamel paint (top most approved branded quality)	sqm	355.00			Rs. -

Sl. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
18	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.					
	In all types of soils such as moorum, sand, sandy silt, clay, black cotton soil, kankar etc					
a)	Depth of excavation up to 1.5 m	Cum	24.00			Rs. -
19	Back filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	Cum	22.00			Rs. -
20	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.					
a)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	Cum	1.00			Rs. -

Sl. No.	Description of Item	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in Rs.
21	Providing and laying design mix reinforcement cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto floor five level excluding cost of reinforcement and form work.					
a)	M-20 (using minimum cement 390 Kg/Cum concrete)	Cum	10.00			Rs. -
22	Centring and shuttering at all levels including strutting, propping etc. and removal of form for :					
a)	Foundations, footings, base of columns and plinth beam in any shape and size.	Sqm	32.00			Rs. -
b)	Columns, Pillars, Piers and likes- rectangular or square in shape	Sqm	20.00			Rs. -
23	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete:					
a)	Thermo-Mechanically treated bars	Kg	644.00			Rs. -
<b>SubTotal of Compound wall</b>						<b>Rs. -</b>

**Note: Minimum quoted rate will be considered for same description of Items.**

Bill of Quantity						
Construction of UGR & Pumping house and Allied works at sector-1 & 24 of Naya Raipur						
D	CC Road					
Sl. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
1	<b>Clearing and grubbing</b> road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned up to a lead of 1000 meters including removal and disposal of top organic soil not exceeding 150 mm in thickness if required and as per relevant clauses of section-200.					
a)	<b>9m wide</b>	ha	0.05			Rs. -
2	Construction of embankment / <b>sub grade with Material Obtained from Borrow Pits</b> (Construction of embankment with approved material/selected soil having C.B.R. > 5 (unless specified otherwise in the contract) obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2)					

Sl. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
a)	<b>9m wide</b>	cum	292.50			Rs. -
3	Construction of granular sub-base by providing close graded Material, , carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface watering, rolling and compacting with vibratory power roller at OMC to achieve the desired density, complete as per clause 401					
	By Mix in Place Method					
	Disintegrated rock i.e moorum having CBR value not less than 20 and P.I and L.L not more than 6 and 20 respectively.					
a)	<b>9m wide</b>	cum	65.00			Rs. -



Sl. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
4	<b>Dry Lean Cement Concrete Sub- base</b> (Construction of dry lean cement concrete Sub-base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 150 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing.)					
a)	<b>9m wide</b>	cum	32.50			Rs. -

Sl. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
5	<b>Cement Concrete Pavement</b> (Construction of unreinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing)					
a)	<b>9m wide</b>	cum	65.00			Rs. -
6	Cast in Situ Cement Concrete M20 kerb (Construction of cement concrete kerb with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M-10 grade foundation 150 mm thick, foundation having 50 mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete as per clause 409)	meter	65			Rs. -

Sl. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
7	<b>Planting of Trees and their Maintenance for one Year</b> (Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year)	each	26			Rs. -
<b>Sub Total of Road Work</b>						Rs. -

**Note: Minimum quoted rate will be considered for same description of Items.**