

**BILL OF QUANTITIES FOR PROPOSED RUDRA PLAYGROUND STAGE 1 .(PLAYGROUND BOUNDRY WALL ,
LIGTHING SYSTEM AND SECURITY HUT)**

Item	Description	Qty.	Unit	Rate	Amount
	BILL NO 02 Note: Prior to do pricing the Contractor is adviced to do a detail inspection of the site related to all items mentioned under this Bill. BILL NO. C DEMOLITION Note: 1. Rates for Demolition shall include demolishing, dismantling and removing etc. with the minimum damage to the material in the process of dismantling, temporary supporting and protecting existing work and adjacent properties against damage, dust and weather and stacking and transport to specified location all serviceable materials as directed and disposal of debris from site including spraying water periodically to reduce the amount of dust. 2. Precautions should be taken during piling up of debris so as not to disrupt existing drainage pathways, pavements walkways etc 3. Rate shall include for Disconnection or plugging water , sewer connection				
02.C.01	Allow for Demolishing Existing building including roof, brick wall,sanitary fittings,con.floor and grubbing up foundations and clearing debris away as per Engineer's Instructions.(visit site visit before filling rates)	5,010.00	m ²		
02.C.02	Allow for disconnection or plugging water, sewer connections.		Item		
02.C.03	Uprooting existing trees and clearing debries away from site	12	Nr		
02.C.04	Demolish existing boundry wall and carting away debris. (visit site visit before filling rates)	291.00	lm		
	Total carried over to summary				

DUPLICATE

Item	Description	Qty.	Unit	Rate	Amount
	BILL NO. D EXCAVATION AND EARTH WORK Note: 1. Unless otherwise measured separately rates shall include for : <ul style="list-style-type: none"> · Part return fill in, well rammed and consolidated · Disposal of surplus earth away from the site · Compact bottom of excavations · Earth work supports · Working space · Dewatering of ground and other water · Dewatering of rain water and collecting water · Stacking of excavated earth for removal · Handling and re-handling of earth 2. Rate for Hard Earth Filling shall include for: <ul style="list-style-type: none"> · Filling in layers, (not more than 1'0") well ramming and consolidating. · The earth shall be free of vegetation, roots, boulders easily decomposable materials, chemicals, industrial waste, plastic etc. · The maximum size of particle shall not exceed 75mm. · The earth shall be well graded and contain silt and clay (fines) not more than 30%. 3. The measurement for earthwork shall be the net volume of earth after compaction.				
02.D.01	Allow for site preparation, Clearing site vegetation, removing debris, top soil,damaged Tar layer to a depth not exceeding 300mm and removing all debris away from site.	7,050.00	m ²		
02.D.02	Excavation for light pole foundation upto 1.5m with suitable shoring and dewatering	20.25	m ³		
	Total carried over to summary				



Item	Description	Qty.	Unit	Rate	Amount
	BILL NO.F CONCRETE WORK F1 - INSITU CONCRETE Note: Rates shall be included for 1. Mixing, handling, hoisting and depositing into position. 2. Packing around reinforcement and vibrating. 3. Curing and clearing as specified. Insitu concrete grade 15 (maximum aggregate size 25mm), approved thickness in blinding layer, poured in to ground for the following item.				
02-F1.01	Under column footings, wall & boundary wall(security hut wall , b'wall & Gates col)	180.00	m ²		
	RCC concrete grade 25 (maximum aggregate size 25mm) for the following items				
02-F1.02	Column footings (Play ground & Gates col)	18.00	m ³		
02-F1.03	Plinth beam	19.25	m ³		
02-F1.04	Column up to Ground floor	0.50	m ³		
02-F1.05	Stiffner column up to 4950mm level.(Boundary wall)	5.00	m ³		
02-F1.06	Column up to 7500mm level (Fence)	31.00	m ³		
02-F1.07	Column up to 2100mm level (Gates)	4.10	m ³		
02-F1.08	Tie beam in boundary wall (Intermediate & top level)	10.00	m ³		
	Cement concrete grade 20 for the following				
02-F1.09	In Lintels	0.25	m ³		
02-F1.10	For Light columns	8.64	m ³		

Item	Description	Qty.	Unit	Rate	Amount
	F2 - FORM WORK Note: Quality of the form work should be approved by the engineer prior to erection. A. Rates shall include for · All necessary boarding, supports, applications of mould oil as necessary, erecting, framing, cutting angles, cleaning, wetting and treatment before placing concrete and striking or removal etc. · Formwork to be measured net contact surface between concrete & formwork. · Formwork to beams, columns, and casings deemed to include ends. B. The contractor shall provide sufficient formwork and moulds to ensure the adequate progress of the work and the Engineer may direct the contractor to provide at Contractor's expense such additional formwork and moulds as they may deem necessary if in his opinion the proper progress of the work is retarded by their absence. C. Rate to be included erecting and dismantling of scaffolding and formwork. D. Formwork for footing, column, beams, lintel, walls, and slabs are of 15mm thick ply-boards. Formwork shall be properly designed formwork as described in specification and it should be sufficiently strong, rigid and should have an even smooth surface and grout tight and should provide a basic finish.				
02-F2.01	Column footings.(Play ground & Gates col)	90.40	m ²		
02-F2.02	Stiffner column up to 4950mm level.(Boundary wall)	65.00	m ²		
02-F2.03	Column up to 7500mm level (Fence)	338.00	m ²		
02-F2.04	Column up to 2100mm level (Gates)	30.00	m ²		

DUPLICATE

DUPLICATE

Item	Description	Qty.	Unit	Rate	Amount
02-F2.05	Plinth beam	50.00	m ²		
02-F2.06	Tie beam in boundary wall (Intermediate & top level)	85.00	m ²		
02-F2.07	Lintels	3.50	m ²		
02-F2.08	In Pavement	0.75	m ²		
F3 - REINFORCEMENT IN INSITU CONCRETE					
Note: Rates shall be included for 1. Cleaning, cutting, bending, fabricating with gauge 18 binding wire and placing in position. 2. Holding and supporting including temporary fixing supports, hangers, binding wire spaces & tor steel stools.which is required for the proper completion of the work. 3. Providing all necessary laps. 4. Plain rounded Mild steel of characteristic strength 250 N/mm² to BS4449 5. High Yield steel of characteristic strength 460 N/mm² to BS4449 & 4461 Mild steel round bar diameter n.e. 10mm for the following items					
02-F3.01	Stiffner & up to 7500mm level columns.	900.00	kg		
02-F3.02	Column up to 2100mm level (Gates)	105.00	kg		
02-F3.03	Plinth beam	614.00	kg		
High-yield tor steel bars diameter n.e. 10mm for the following items.					
02-F3.04	Plinth beam	425.00	kg		
02-F3.05	In Lintels	5.00	kg		
02-F3.06	Stiffner column up to 4950mm level.(Boundary wall)	500.00	kg		

DUPLICATE

Item	Description	Qty.	Unit	Rate	Amount
	High-yield tor steel bars diameter 12mm-16mm for the following items.				
02-F3.07	Column footings.(play ground & Gates col)	1,530.00	kg		
02-F3.08	Column up to 7500mm level (Fence)	1800.00	kg		
02-F3.09	Column up to 2100mm level (Gates)	410.00	kg		
	Total carried over to summary				
	BILL NO G				
	MASONRY WORKS				
	Note				
	a. Cement Blocks should be of superior quality subject to take prior approval by the engineer.				
	b. Mortar used for block work shall be 1:5 cement and sand mixture unless otherwise specified.				
	G1 - BLOCK WORK				
	150mm thick block work in cement and sand mortar 1:5 for the following items.				
02-G1.1	In security hut	23.00	m ²		
02-G1.2	In boundary wall.	710.00	m ²		
	G2 - RUBBLE WORK				
02-G2.1	Random rubble masonry in cement & sand mortar 1:5 in wall foundations.(security hut & boundary wall)	135.00	m ³		
02-G2.2	Fair face random rubble masonry in cement & sand mortar 1:5 in fence wall	75.00	m ³		
	Total carried over to summary				

Item	Description	Qty.	Unit	Rate	Amount
	BILL NO H WATER PROOFING Note: The water proofing contractor (or sub contractor) should be a registered specialist contractor at the The contractor shall submit a written warranty of at least 10 year to cover on the quality of the The water proofing material shall confirm to relevant British, Euro or ASTM specifications. DPC 02.H.01 20mm thick D.P.C. in cement sand 1:2 finished with 2 coats of D.P.C. tar and blinded with sand.	3.00	m ²		
	02.H.02 Damp proof membrane under floor concrete, out of 700 guage polythene. Rate shall include for all laps	5.00	m ²		
	Total carried over to summary				
	BILL NO. L WOOD WORK L2 - JOINERY TIMBER DOORS a. Timber usage The purpose of timber shall be structural and furniture use. b. Quality grades and compliance with structural adequacy The timber shall be recognized based on the modules of elasticity and density at the specified moisture content at the service environment.				

Item	Description	Qty.	Unit	Rate	Amount
	<p>c. Service environment</p> <p>Service environment and final exposure of timber shall be at a temperature of around 24⁰C and plus or minus 5⁰C and the relative humidity of the surrounding air between 55% to 60% and as such timber will attain an average moisture content not exceeding 12%.</p> <p>d. Standards</p> <p>Timber shall be supplied in accordance with the standards grading rules applicable to the country of origin. The applicable standard shall be furnished by the contractor in writing along the sample submission for testing.</p> <p>e. General requirement</p> <p>Timber for the structural purpose shall be in the density range of 800 to 900kg/m³ and the same applicable to timber for furniture is 600 to 750kg/m³ at moisture content at service condition.</p> <p>f. Seasoning by preservative treatment</p> <p>The timber should be made durable by preservative treatment. Thus lowhazard and non piosonous timber protection shall be adopted to achieve the moisture content under service environment. Timber shall be seasoned to achieve the specified moisture content under service environment with a suitable drying method.</p> <p>g. Rates shall be include the Brass hinges, locks, handles & all necessary accessories which should equal to existing accessories and prior approval to be taken from the project Architect to finished the work.</p> <p>Finishes and size for timber</p> <p>All timber sizes mentioned should be finished sizes.It is the responsibility of the contractor to work out the sections of the market available timber and select suitable sections to achieve the required sectional dimentions.</p>				

Item	Description	Qty.	Unit	Rate	Amount
	<p>All timber work should be done as per detailed drawing and match to furniture.</p> <p>A prerequisite of all painting and decorative finishing system is that they shall be compatible not only to each of the constituent layers of the systems, but also to the delivery finish of the material to be decorated. The contractor is advised to consult the manufacturers of painting material before using the same.</p> <p>prior approval should be taken from the Engineer for this paintings and colours.</p> <p>painting system shall consist of five-coat-work- that is, two coats for all timber work, solvent based tinting stain and two coat clear polyurethane base coats for all timber work, solvent based tinting stain and two coat of clear polyurethane top coat (sealer or equivalent) with matt finish for all timber work.</p> <p>Manufactures specifications shall be followed in application method. all timber members shall contain minimum number of knots that must be treated prior to priming.</p> <p>L2 - JOINERY</p> <p>Timber Doors</p>				
L2-01	Supply and fix timber framed timber groove sash door as per detail drawing (Size - 900mm x 2100mm)	01	Nr		
L2-02	Supply & fix timber framed glazed window as per detail (W1 - 900mm x 1200mm)	02	Nr.		
	Total carried over to summary				



Item	Description	Qty.	Unit	Rate	Amount
02.P.01	BILL NO. P ROOF AND ROOF PLUMBING	12.00	m ²		
	Supply & fix cement roof tiles with calcium silicate slope ceiling on approved local timber or imported Balau , Bitis or Kempas timber frame work complete with ridge hips etc. comprising of 165mm x 45mm ridge plate , 94mm x 70mm wall plate , 94mm x 45mm rafters @ 18" c/c and 45mm x 22mm reepers @ 12" c/c. (Rate shall include for routing ,planing and sand papering purlings and rafters and application of water based sealants. Rate shall include for application of wood preservative.(Security hut)				
	Total carried over to summary				
	BILL NO.S ELECTRIAL INSTALLATION Note: All electrical constructions should be according to IEE regulations (18th edition or later) and subject to the instructions of the electrical officer concerned. Jobs attend beyond condition will not be approved please. All switches & socket outlets shall be plated type "Clipsal","Orange" or Cabtree (make:-"Atco","BG" original or equivalent) starter and the tube should be Thron, Philips or Osram. All Ceiling fans should be KDK,National Mitsubishi, Hittachi(original Japan) with guarantee card from the authorized dealer. All Distribution Boadrs should be incorporated with genuine Merlin Gerin, A.B.B., Hager,F & G, Clipsal make MCB's (Miniature Circuit Breakers) and Cabtree,F & G, Clipsal ,Merlin Gerin make RCD's (Residual Current Devices) and Terrasaki,Merlin Gerin, Dormans Smith,Biticano, Clockner moeller make MCCB's (Moulded Case Circuit Breakers). A certificate or invoice along with their Company seal and part No./Numbers should be produced at the time of payment.				

Item	Description	Qty.	Unit	Rate	Amount
	<p>Minimum 1 year warranty from the building handed over date shall be given for all electrical equipment .Warranty cards shall be submitted by the contractor to the Projects Engineer.</p> <p>All light fittings shall be approved by the project architect/ electrical engineer prior to the installation and have 2 year warranty period.Warranty cards shall be submitted by the contractor to the Projects Engineer.</p> <p>Strictly follow the specifications attached for the lighting system.</p> <p>The design shall conform to BSEN 12193 and FIFA standards and the comprehensive warranty for the installation for 5 years including the light levels shall be given.</p> <p>Accordingly the horizontal average lux level 75Lux shall be available after the installation (class iii).</p> <p>Lighting Design report shall be given with the bid to assure the given light levels at the pitch using the proposed luminaire and mast.</p>				
02-S-01	<p>Refer specifications for Luminaire.</p> <p>Supply & install approved type LED luminaire for foot ball pitch (maximum 2200W and minimum 220,000 lumen light ouput) complete fittings as per the specifications according to the electrical layout & complete wiring .Luminaire shall have IP66 and IK08 conformity and Prior approval shall be taken to the fitting, fixing method as per the specifications. Philips, Thorn or equivalent approved.</p> <p>With the above luminare average lux level of 200lux at the ground level of the pitch (without cable cost)</p>	8	Nr		
02-S-02	<p>Supply & install approved type 18m lighting mast to mount luminaires in item S-01.</p> <p>The cross arms, ladders paltforms for luminaire mounting and all other accessories shall be included as per the specifications and drawings.</p> <p>Valmont, lyaught, abacus or equivalent approved.</p> <p>Cost shall include the foundation and necessary hydraulic systems for maintainance as per the specifications</p>	4	Nr		
02-S-03	Supply and install aircraft warning lamp set per pole as per the specifications	4	Nrs		
02-S-04	supply and install lightning arrestors for poles including copper piping and grounding	4	Nr		

Item	Description	Qty.	Unit	Rate	Amount
02-S-05	Supply & install approved clear globe type outdoor weather proof complete lamp fittings for fence with approved type 12W LED (warm white) as shown in the layout & complete wiring using round blocks, ceiling roses, 1.5mm ² Cu/PVC/PVC cable, flexible cable, sunk switches, sunk nut boxes and conduits or plastic casings etc. where necessary. 2year comprehensive warranty. Orange or Equivalent.	6	Nr.		
02-S-06	Supply & install approved type outdoor weather proof complete lamp fittings for fence with approved type 6W LED (warm white) as shown in the layout & complete wiring using round blocks, ceiling roses, 1.5mm ² Cu/PVC/PVC cable, flexible cable, sunk switches, sunk nut boxes and conduits or plastic casings etc. where necessary. 2year comprehensive warranty. Orange or Equivalent.	16	Nr.		
02-S-07	Supply & install approved type LED 6W niche light recessed to the pavilion steps as shown in the electrical layout & complete wiring using round blocks, ceiling roses, 1.5mm ² Cu/PVC/PVC cable, flexible cable, sunk switches, sunk nut boxes and conduits or plastic casings etc. where necessary. 2year comprehensive warranty. Orange or Equivalent.	34	Nr.		
02-S-08	Supply & install approved type surface mounted LED circular 200mm dia 18W lamp (Cool white) complete fittings as shown in the electrical layout	2	Nr		
02-S-09	Supply & install approved type sweep ceiling fans with dimmer type regulators with a switch -1400mm (55") dia. according to the electrical layout & complete wiring by using the same items as in No. 01 above + 2.5mm ² Cu/PVC earth cable.	1	Nr.		
02-S-10	Supply & install approved type 13A sunk plug bases with switches & complete wiring by using 2.5mm ² Cu/PVC/PVC cable + 2.5mm ² Cu/PVC earth cable, sunk nut boxes & conduits or casing etc. where necessary.	1	Nr.		



Item	Description	Qty.	Unit	Rate	Amount
02-S-11	Supply and install an approved type distribution board in fabricated in zinc coated sheet not less than 1.5 mm thickness and all other necessary accesories, surface finish should be powder coated texured finish R.A.L.7032 and consists following and connect supply. (MDB) 150A 4P MCCB 01 Nr. Bus bars & Indicators core balance EFR & PFR Surge Protectors Indicator bulbs, digital V/A meters, contactors, relays, busbar and all related accessories 63A 4P MCCB 1 Nrs (to DB_Landscaping) 40A 4P MCB 02 Nrs. (to buildings) 40A 2P MCB 01 Nrs. (to Security Hut) 63A 4P MCB 02 Nrs. (Spare) 40A 4P MCB 02 Nrs. (Spare) 40A 2P MCB 01 Nrs. 40A 2P RCCB 01 Nr.(30mA) 20A 1P MCB 02 Nrs.(spare) 16A 1P MCB 02 Nrs.(spare)	1	Item		
02-S-11	Supply and install an approved type ABC distribution board with all accessories as railings and consists following connect supply from the MDB (DB_Security Hut) 40A 2P MCB 01 Nr. 40A (30mA) 2P RCD 01 Nr. 20A 2P MCB (C type) 01 N0. (Spare) 20A 1P MCB 01 Nos. (Spare) 20A 1P MCB 01Nos. (Socket Outlets) 16A 1P MCB 02 Nrs. (For Lighting & fan Circuits) 16A 1P MCB 02 Nrs.(Spare)	1	Nr.		

DUPLICATE

Item	Description	Qty.	Unit	Rate	Amount
02-S-12	Supply and install an approved outdoor type floor standing Distribution Board , fabricated in zinc coated sheet not less than 1.5 mm thickness with all necessary accessories, surface finish should be powder coated textured finish R.A.L.7032 and consists of following of approved types.(DB-Lanscaping) 63A/4P MCCB Bus bars & indicators 40A 4P MCB 08 Nrs. (For control panels of 6 lamp posts, Fence Lamps) 40A 2P MCB-3 nos. 40A 2P RCCB 30mA-03 nos. 40A /4P/ MCB 01Nr (Spare) 16A 2P MCB-4 nos. (Spare) Spare for 6 Nrs of 1P MCB 20A 2P MCB (C type) 01 N0. (Spare) Surge protectors	1	Nrs		
02-S-13	Supply and install an approved outdoor type control panel board with concrete base for each pole at the pole bottom including all necessary accessories with surge protection etc. Servicing the luminaires and the lift both as per the specifications. (DB-Lanscaping) 40A 4P MCB 40A 2P MCB 03 nos. (for 3 phases) 40A/2P /RCCB (30mA) 03 Nrs (for 3 phases) 16A /2P/ MCB 06Nrs dedicated breakers for Lighting circuits Spce for 6 Nrs of 1P MCB Surge protectors	7	Nrs		
02-S-14	supply and install 4C x 70mm ² cu/swa/xlpe cable to main panel board in a duct as per the specifications.include necessary excavations and backfilling as per the specifications	10	m		
02-S-15	Supply of electrical connection upto the luminaires with 3 core 2.5mm ² flexible cables (cu/pvc) . Include necessary cost for cable risers , brackets for verticle cabling	120	m		
02-S-16	supply and install 4C x 50 mm ² cu/swa/xlpe cable to outdoor control panel in a duct as per the specifications.include necessary excavations and backfilling	150	m		



Item	Description	Qty.	Unit	Rate	Amount
02-S-17	supply and install 4C x 35 mm ² cu/swa/xlpe cable to Pole bottom from outdoor control panel in a duct as per the specifications.include necessary excavations and backfilling	360	m		
02-S-18	supply and install 4C x 25mm ² cu/swa/xlpe cable to fence lamps from outdoor control panel in a duct as per the specifications.include necessary excavations and backfilling as per the specifications	200	m		
02-S-19	supply and install 4C x 6mm ² cu/swa/xlpe cable to main panel board to fence lamps & niche lamps in a duct as per the specifications.include necessary excavations and backfilling as per the specifications	200	m		
02-S-20	supply and install 4C x 25mm ² cu/swa/xlpe cable to main panel board in a duct as per the specifications.include necessary excavations and backfilling as per the specifications	50	m		
02-S-21	Supply and install 4 core cu/swa/xlpe cable cable for air craft warning lights.Include necessary cost for cable risers , brackets for verticle cabling	120	m		
02-S-22	supply and install proper grounding system for the total electrical installation including copper plates and earthimproving asperthe specifications-For 3 Phase MDB	1	Item		
02-S-23	Testing & Commissioning of Lighting System Lights shall be aimed by the bidder using the necessary equipment to obtain the specified light levels and testing and commisioning of the installation as per the specifications Cost shall include all associated costs including expenditure to obtain necessary reports from a chartered electrical Engineer. (At the testing the bidder shall ensure that the lighting system comply the standard If not he shall make alterations at no cost.)	1	Item		
02-S-24	01 No. of three phase bulk connection from CEB.Cost shall include all expenditure to obtain necessary reports from a chartered electrical Engineer. Total carried over to summary		Pro.Sum		500,000.00

Item	Description	Qty.	Unit	Rate	Amount
	BILL NO: T FLOOR & WALL FINISHES T1 - FLOOR FINISHES Note : Note ; 1.Floor tile Samples shall be submitted for the approved of Architect before use 2.The brands that may be considered as equivalent are Rocell/Lanka Tile or any other approved equalent. 3.Homogenous porcelain floor tilling water absorption to weight to weight should be <0.5%,Modulus of Rupture(min)>25N/mm2				
02.T1.01	20mm thick cement rendering on pavement in cement and sand mortar 1:3 and floated smoothly with approved colour cement. (Security Hut)	14.00	m ²		
02.T1.02	300mmx300mm approved quality non slip homogeneous (Rocell/Lanka) floor Tile or equelant floor tiling bedded in cement and sand 1:3 and joints finished with coloured grout to match with colour of tiles.(Rate to be included the cost of 1:3 mortar levelling bed) (Security Hut)	6.00	m ²		
02.T1.03	Skirting with 300mm x 100mm approved quality non slip homogeneous floor tiling on plastered surface of walls and joints finished with coloured grout to match with colour of tiles (Security Hut)	9.00	m		
	T2 - WALL FINISHES Note ; Wall tile samples shall be submitted for the approved of Architect before use 1.Water absorption to weight should be 10%-20%,Modulus of Rupture (min)>25N/mm². 16mm thick plastering to internal walls with cement sand mortor 1:5 finish smooth with two coat of skim coat for walls.				
02-T2-01	Walls in security hut	23.00	m ²		
02-T2-02	Width n.e 300mm in reveals in security hut.	13.00	m		
	16mm thick external plastering with cement and sand mortar 1:5 to a semi rough finish for the following items.				
02-T2-03	Walls in security hut	23.00	m ²		
02-T2-04	Width n.e 300mm in reveals in security hut.	13.00	m		



Item	Description	Qty.	Unit	Rate	Amount
02-T2-05	plastering to boundary wall & columns cement & sand mortar 1:3 to a rough finish. (Including gate column)	1810.00	m ²		
02-T2-06	Plastering to rubble wall top cement & sand mortar 1:3 to a rough finish as per detail plan.	65.00	m ²		
02-T2-07	Plastering to gate column top (Cornice) cement & sand mortar 1:3 to a rough finish as per detail plan.	04	Nrs		
	Total carried over to summary				
	BILL NO V				
	PAINTING				
	Painting all external walls with two coats of approved quality and colour weathershield paint after preparing surface .				
02-V-01	In security hut	30.00	m ²		
02-V-02	In boundary wall & columns	1,885.00	m ²		
	Internal color washing with two coats of approved quality and colour emulsion paint after applying one coat of filler.				
02-V-03	In security hut	30.00	m ²		
	Total carried over to summary				
	BILL NO X				
	EXTERNAL WORKS				
02.X.01	Allow for fabricating and fix gauge 16 Aluminium cladding (timber effect) sheet name board with 02 Nrs 50mm dia medium duty GI pipe frame fixed to gate columns & 12mm MS rods welded to bottom.Rate to include for application of one coat of anticorrosive paint and two coats of enamel paint. 25mm thick 225mm High letters in three languages fixed on to Al. cladding sheet with necessary accessories, as per given detail		Item		
02.X.02	Supply & fixing Curved 50mm dia GI pipe as per detail .Rate to include for application of one coat of anticorrosive paint and two coats of enamel paint.(Over Gate A)	11.00	m		
02.X.03	Supplying and fixing 75mmx75mm box bar frame with diagonal timber slats double sashes gate as per plan (Gate A & B - size 4450mm x 2100mm)	02	Nr		



Item	Description	Qty.	Unit	Rate	Amount
02.X.04	Supply & fix 5250mmx3000mm heavy duty GI (50mm dia 3mm thick) pipe frame (Curved top) and all intermediate members with (50mm dia 3mm thick heavy duty GI)fix to plastic coated chain link . Included all necessary hooks, nut & bolts.gauge 10 ..Rate to include for application of one coat of anticorrosive paint and two coats of enamel paint.Refer boundry wall .Refer Drawing .	51.00	Nr		
02.X.05	Supply & fix 3000mmx3000mm heavy duty GI (50mmdia 3mm thick) pipe frame (Curved top) and all intermediate members with (50mm dia 3mm thick heavy duty GI) fix to plastic coated chain link . Included all necessary hooks, nut & bolts.gauge 10 ..Rate to include for application of one coat of anticorrosive paint and two coats of enamel paint.	21.00	Nr		
02.X.06	Supply & fixing vertical 150mm dia GI pipe(GI pipe base decided by Engineer)as per detail Rate to include for application of one coat of anticorrosive paint and two coats of enamel paint.	250.00	m		
02.X.07	Supplying & fixing 150mm dia. G.I cap on G.I pipe posts as directed.	44	Nr		
02.X.08	Supply and laying Buffalo grass turves of size not less than 200mm x 200mm x 75mm and laid closed butted to one another while ensuring lateral joints between turves being staggered, where necessary turves shall be pegged to the soil to prevent movement or slippage. Thereafter, turfing shall be compacted, levelled and maintained for a period of there(3) months by watering, weeding and trimming, untill roots are firmly rooted in to the ground.	4,130.00	m ²		
02.X.09	Supplying and laying sand bed 75mm thick around the ground	25.00	m ³		
02.X.11	Excavate and construct concrete drain depth 0.25 to 0.6 m deep and 0.3m wide , wall 100mm thick bed 100mm thick. Reinforcement T10@200mm both way for wall and bed. Rate should include 100mm thick precast cover slabs (300x 600 mm) with T10@150 both way.	135.00	m		
02.X.15	Supplying and installation of garden taps " Water-tec" (as per Manufacturer's specification)	06	Nr		
Total carried over to summary					

MUNICIPAL ENGINEER'S DEPARTMENT

**PROPOSED RUDRA PLAYGROUND STAGE 1 (PLAYGROUND, BOUNDARY WALL, LIGHTING
SYSTEM AND SECURITY HUT)**

(PLAY GROUND, PAVILLION & SECURITY HUT)

SUMMARY

BILL NO	DESCRIPTION	AMOUNT RS.
BILL NO. C	DEMOLITION	
BILL NO. D	EXCAVATION AND EARTH WORK	
BILL NO. F	CONCRETE WORK	
BILL NO. G	MASONRY WORK	
BILL NO. H	WATER PROOFING	
BILL NO. K	METAL WORK	
BILL NO. L	WOOD WORK	
BILL NO. P	ROOF AND ROOF PLUMBING	
BILL NO. Q	PLUMBING AND SANITARY INSTALLATIONS	
BILL NO. S	ELECTRICAL INSTALLATION	
BILL NO. T	FLOOR & WALL FINISHES	
BILL NO. V	PAINTING	
BILL NO W	DRAINAGE SYSTEMS	
BILL NO X	EXTERNAL WORKS	
	SUB TOTAL (BILL NO 02)	

SIGNATURE OF TENDERER

DATE:

DUPLICATE

**BILL OF QUANTITIES FOR PROPOSED RUDRA PLAY GROUND STAGE 1 - ((GROUND IMPROVEMENT
SPRINKLER SYSTEM AND PUMPING WELL)**

DUPLICATE

Item	Description	Qty.	Unit	Rate Rs.	Amount Rs.
	BILL NO 03				
	BILL NO. D				
	EXCAVATION AND EARTH WORK IN GROUND				
	TOP SOIL				
	Refer Specification.				
03.D.01	Test the top soil samples of soil pit as per the condition laid down in specification for soft landscaping and submit a report of recomondation of the suitability of reusing same top soil as top soil of final ground formation			Provisional sum	200,000.00
03.D.02	Import and supply the top soil of the required quality as pre the specification applicable to landscaping work and submission of carrying out testing and submission of report of recommendation as per the specification (mesured compacted volume calculated accroding to surveying drawing)	607.5	m ³		
	SUB SOIL				
03.D.03	Testing of sub soil of the existing ground as per the specification laid down under landscaping work.The item shall include carry out required testing and submission of a report of recommendation of the quality of soil justifying whether it is suitable for keeping as it is or need for replacement			Provisional sum	250,000.00
03.D.04	Excavation and removing away the existing top and sub soil including transport it the report under item no D5 is not recommended the existing sub soil for the purpose of reuse	769.5	m ³		
	Earth filling				
03.D.05	Import and supply the sub soil of the required quality as pre the specification applicable to landscaping work and submission of carrying out testing and submission of report of recommendation as per the specification (mesured compacted volume calculated accroding to surveying drawing)	3200.00	m ³		

DUPLICATE

Item	Description	Qty.	Unit	Rate Rs.	Amount Rs.
03.D.06	PUMP HOUSE Construction of pump house (2.4 x2.4 x2.4 m with brick wall on Rubble foundation and concrete floor (100mm) and 125mm thick reinforced concrete roof slab. With Steel door and plating & painting.	2.00	Nr		
03D.7	Grid Level surveying with licensed surveyour for the total area after and before soil filling. (Maximum grid spacing 3m and min spacing may adjust with ground variation) . Contractor should submit sign copy of the drawings along with AutoCad , DWG format soft copy with full access to the file. 3 surveying has to be done. 1 before soil fill.2- after sub base soil fill, 3- after top soil layer fill. WELL Construction of reinforce concrete well using cylinder sinking method.Any other alternative method suggested shall be without any additional cost involve and subjected to the approval of a method of statement by the Engineer. Excavation including dewatering and necessary precautions during dewatering to avoid the horizontal and vertical displacement of surrounding soil Any shoring (earth support system)to avoid the collapse of the earth embankments or any other structure during the construction of the well Temporary store of the excavated soil for drying until it is capable for transport and transporting within 15 Km away from the site.Selected by the contractor for temporary stores as well		Item		
03.D.07	WELL 1 In 2400mm dia well depth n.e 1m	5.00	m³		
03.D.08	In 2400mm dia well depth 1m - 2m	5.00	m³		
03.D.09	In 2400mm dia well depth 2m - 3m	5.00	m³		
03.D.10	In 2400mm dia well depth 3m - 4m	5.00	m³		
03.D.11	In 2400mm dia well depth 4m - 5m	5.00	m³		
03.D.12	In2400mm dia well depth 5m - 6m	5.00	m³		
03.D.13	In2400mm dia well depth 6m - 7m	5.00	m³		
03.D.14	WELL 2 In 2400mm dia well depth n.e 1m	5.00	m³		
03.D.15	In 2400mm dia well depth 1m - 2m	5.00	m³		

DUPLICATE

Item	Description	Qty.	Unit	Rate Rs.	Amount Rs.
03.D.16	In 2400mm dia well depth 2m - 3m	5.00	m ³		
03.D.17	In 2400mm dia well depth 3m - 4m	5.00	m ³		
03.D.18	In 2400mm dia well depth 4m - 5m	5.00	m ³		
03.D.19	In 2400mm dia well depth 5m - 6m	5.00	m ³		
03.D.20	In 2400mm dia well depth 6m - 7m	5.00	m ³		
Total carried over to summary					
BILL NO.F CONCRETE WORK F1 - INSITU CONCRETE Note: Rates shall be included for 1. Mixing, handling, hoisting and depositing into position. 2. Packing around reinforcement and vibrating. 3. Curing and clearing as specified. Insitu concrete grade 15 (maximum aggregate size 25mm), approved thickness in blinding layer, poured in to ground for the following item RCC concrete grade 25 (maximum aggregate size 25mm) and column, sectional area not exceeding 0.1m² for the following items WELL 1 03-F1.01 200mm thk wall in well depth n.e 3000mm 4.90 m ³ 03-F1.02 200mm thk wall in well depth 3000mm -6000mm 4.90 m ³ 03-F1.03 200mm thk wall in well depth exceeding 6000mm 1.70 m ³ 03-F1.04 150mm thk.cover slab 0.80 m ³ 03-F1.05 225 x225 mm thick beam for cover slab 0.15 m ³ WELL 2 03-F1.06 200mm thk wall in well depth n.e 3000mm 4.90 m ³ 03-F1.07 200mm thk wall in well depth 3000mm -6000mm 4.90 m ³ 03-F1.08 200mm thk wall in well depth exceeding 6000mm 1.70 m ³ 03-F1.09 150mm thk.cover slab 0.80 m ³ 03-F1.10 225 x225 mm thick beam for cover slab 0.15 m ³ F2 - FORM WORK Note: Quality of the form work should be approved by the engineer prior to erection. A. Rates shall include for					

Item	Description	Qty.	Unit	Rate Rs.	Amount Rs.
	<p>· All necessary boarding, supports, applications of mould oil as necessary, erecting, framing, cutting angles, cleaning, wetting and treatment before placing concrete and striking or removal etc.</p> <p>· Formwork to be measured net contact surface between concrete & formwork.</p> <p>· Formwork to beams, columns, and casings deemed to include ends.</p> <p>B. The contractor shall provide sufficient formwork and moulds to ensure the adequate progress of the work and the Engineer may direct the contractor to provide at Contractor's expense such additional formwork and moulds as they may deem necessary if in his opinion the proper progress of the work is retarded by their absence.</p> <p>C. Rate to be included erecting and dismantling of scaffolding and formwork.</p> <p>D. Formwork for footing, column, beams, lintel, walls, and slabs are of 15mm thick ply-boards.</p> <p>Formwork shall be properly designed formwork as described in specification and it should be sufficiently strong, rigid and should have an even smooth surface and grout tight and should provide a basic finish.</p>				
03-F2.01	<p>WELL 1</p> <p>Shuttering for well including dismantling in 15mm thick plywood</p>	115	m ²		
03-F2.02	<p>Shuttering for well cover slab and supporting beam including dismantling in 15mm thick plywood</p>	8	m ²		
03-F2.03	<p>WELL 2</p> <p>Shuttering for concreting well including dismantling in 15mm thick plywood</p>	115	m ²		
03-F2.04	<p>Shuttering for well cover slab and supporting beam including dismantling in 15mm thick plywood</p>	8	m ²		
	<p>F3 - REINFORCEMENT IN INSITU CONCRETE</p> <p>Note:</p> <p>Rates shall be included for</p> <ol style="list-style-type: none"> 1. Cleaning, cutting, bending, fabricating with gauge 18 binding wire and placing in position. 2. Holding and supporting including temporary fixing supports, hangers, binding wire spaces & tor steel stools.which is required for the proper completion of the work. 3. Providing all necessary laps. 4. Plain rounded Mild steel of characteristic strength 250 N/mm² to BS4449 				

DUPLICATE

Item	Description	Qty.	Unit	Rate Rs.	Amount Rs.
	5. High Yield steel of characteristic strength 460 N/mm² to BS4449 & 4461 Mild steel round bar diameter n.e. 10mm for the following items WELL 1 High-yield tor steel bars diameter 10-16mm for the following items.				
03-F3.01	In well 1 depth n.e 3000mm	420.00	kg		
03-F3.02	In well 1 depth 3000mm-6000mm	420.00	kg		
03-F3.03	In well 1 depth exceeding 6000mm	150.00	kg		
03-F3.04	In cover slab of well 1	45.00	kg		
03-F3.05	supporting beam of cover slab in well 1	15.00	kg		
03-F3.06	striups for supporting beam of cover slab in well 1	3.00	kg		
	WELL 2 High-yield tor steel bars diameter 10-16mm for the following items.				
03-F3.07	In well 2 depth n.e 3000mm	420.00	kg		
03-F3.08	In well 2 depth 3000mm-6000mm	420.00	kg		
03-F3.09	In well 2 depth exceeding 6000mm	150.00	kg		
03-F3.10	In cover slab of well 2	45.00	kg		
03-F3.11	supporting beam of cover slab in well 2	15.00	kg		
03-F3.12	striups for supporting beam of cover slab in well 2	3.00	kg		
	Total carried over to summary				
03-X2	SPRINKLER CONTROLING SYSTEM Note: Minimum 2 years warranty for the water pumps and 1 year for other accessories, Warranty cards shall be submitted by the contractor to the Projects Engineer.				
03-X2-01	HEAD CONTROLL UNIT WITH PUMPING UNIT - 3" MEDIUM GUAGE Water pumping unit - 26cub.m./hr. @ 50m head				
03-X2-01-01	Centrifugal pump, 3 Phase Electric, 3"X3", with Pump Starter - 2 nos.	3	Nr.		
03-X2-01-02	3" Rubber bellow (Flexible joint)	6	Nr.		
03-X2-01-03	2" Pressure relief valve	3	Nr.		
03-X2-01-04	2" Air realized valave	3	Nr.		
03-X2-01-05	3" Butterfly valves with falnges	3	Nr.		
03-X2-01-06	3" Metal Screen Filter - 100 mesh	2	Nr.		
03-X2-01-07	3" Flange/door type Non Return Valve	3	Nr.		
03-X2-01-08	3" PVC PNT11 Suction & 3" heavy duty plastic foot valve	3	Nr.		
03-X2-01-09	3" GI medium guage piping and Other Accessories	2	item		
03-X2-02	MAIN LINE 3" PVC Pipe PNT11 with all necessary things including excavation and back filling	300	m		
03-X2-03	SUB MAIN LINES 3' PVC Pipe PNT11 including excavation and back filling	325	m		
03-X2-03-01	1" PVC PIPE PNT11including excavation and back filling	68	m		
03-X2-03-02	2" PVC Pipe PNT11including excavation and back filling	325	m		
03-X2-04	FIELD CONTROLING UNIT & VALVES (3" X 3" One way Field Control Unit 16 nos.)				

DUPLICATE

DUPLICATE

Item	Description	Qty.	Unit	Rate Rs.	Amount Rs.
03-X2-04-01	3" Wheel Type heavy duty metal valve - PNT 16 with all necessary fittings	8	Nr		
03-X2-04-02	3" PVC Flanges with rubber packing & nuts/bolts with all necessary fittings	15	Nr		
03-X2-04-03	Heavy duty valve box - Size L:66.8XW:50.3XH30.7 cm, with lid mentioned irrigation	8	Nr		
03-X2-05	POP UP SPRINKLERS				
03-X2-05-01	Gear Driven Pop Up Sprinkler - Overall hieght - 8 1/2" , Pop Up hieght - 4" , 1" BSP thread, with Rain Curtain Nozzle, 17m-18m radius coverage with 50lpm - 60lpm discharge @ 4bar pressure - Part Circle with adjustable arc	15	Nr		
03-X2-05-02	Gear Driven Pop Up Sprinkler - Overall hieght - 8 1/2" , Pop Up hieght - 4" , 1" BSP thread, with Rain Curtain Nozzle, 17m-18m radius coverage with 50lpm - 60lpm discharge @ 4bar pressure - Full circle	20	Nr		
03-X2-05-03	Required PVC fittings and accessories		item		
04-X2-06	INSTALLATION, COMMISSIONING & HANDING OVER		Sum		
	Total carried over to summary				

DUPLICATE

BILL OF QUANTITIES FOR PROPOSED RUDRA PLAY GROUND STAGE 1 - (GROUND IMPROVEMENT SPRINKLER SYSTEM AND PUMPING WELL)

SUMMARY

BILL NO	DESCRIPTION	AMOUNT RS.
BILL NO. C	DEMOLITION	
BILL NO. D	EXCAVATION AND EARTH WORK	
BILL NO. F	CONCRETE WORK	
BILL NO. X	EXTERNAL WORK	
BILL NO. X2	SPRINKLER CONTROLING SYSTEM	
	SUB TOTAL	

SIGNATURE OF TENDERER:

DATE:

**PROPOSED RUDRA PLAYGROUND STAGE 1 (PLAYGROUND, GROUND IMPROVEMENT
SPRINKLER SYSTEM AND PUMPING WELL, BOUNDARY WALL , LIGHTING SYSTEM AND
SECURITY HUT)**

DUPLICATE

MAIN SUMMARY

BILL NO	DESCRIPTION	AMOUNT
		RS.
BILL NO. 01	PRELIMINARIES	
BILL NO 02.	PLAY GROUND SECURITY HUT	
BILL NO 03	SPRINKLERS AND PUMPING WELL	
	SUB TOTAL	
	ADD 10% CONTINGENCIES	
	TENDER PRICE (BID PRICE)	
	ADD 8% VAT	
	FINAL COST (WITH TAXES)	

SIGNATURE OF TENDERER

DATE: