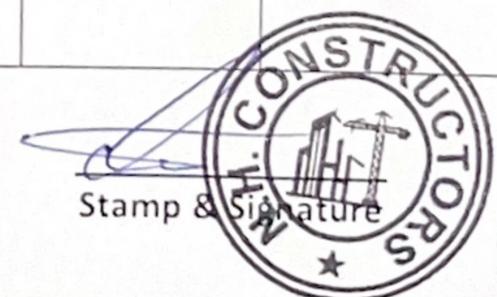


SCHEDULE – A TO BID

SCOPE OF WORK

(A) SPRINKLER IRRIGATION SYSTEM AND FOUNTAINS OF IBA KARACHI

B.O.Q Item	Description	Unit	Quantity	Rate	Amount
1	EXCAVATION AND BACKFILLING				
	Refer Section 01				
1.1	Excavation in all kinds of soil up to desired level depths, in foundation, pipe trenches and all chambers including disposal of surplus/ rejected excavated material to designated places and in accordance with the specification. Complete in all respect as shown in drawings or as directed by the Engineer	Cum.	285	2530	721,050
1.2	Backfilling with common materials (above pipe covering) obtained from required excavation including cleaning, levelling, dressing, watering and compacting as per drawings and in accordance with the specification. Complete in all respect and as directed by the Engineer.	Cum.	225	1863	419,175
1.3	Backfilling with borrow materials (above pipe covering) if required including levelling, cleaning, dressing, watering and compacting as per drawings and in accordance with the specification. Complete in all respect or as directed by the Engineer.	Cum.	10	1495	14,950
1.4	Pipe covering with A-3 material (Fine Sand)/selected backfill material if required including cleaning, levelling, dressing, watering and compacting as per drawings and in accordance with the specification. Complete in all respect and as directed by the Engineer.	Cum.	70	747.5	52,325
2	HDPE (High Density Polyethylene) PIPES				
	Refer Section 04				



	Supply, Laying and Fixing of HDPE (High Density Polyethylene) Grade PE-100 (PN-10) pipe conforming to ISO4427 in trenches up to required depth in proper alignment and gradient, including all types of fittings conforming to ISO-ISO 3458, 3459, 3501, 3503 (socket, tee, elbow, Y single and double, reducing socket etc) jointing, fixing, testing, cost of butt fusion with tools etc, as per drawings and in accordance with the specification. Complete in all respect as directed by the Engineer.				
a	32mm (OD)	Rm.	550	218.5	120,175
b	50 mm (OD)	Rm.	5	529	2,645
c	60 mm (OD)	Rm.	60	391	23,460
d	75 mm (OD)	Rm	5	667	3,335
3	GI (GALVANIZED IRON) PIPES				
	Galvanized Iron pipe conforming to BS 1387 (EN 10255) and fittings (China HE brand or approved equivalent) of following internal diameters for sprinkler nozzle connection and hosebib connections.				
a	12mm	Rm.	20	230	4,600
b	20 mm	Rm.	10	333.5	3,335
4	HOSE BIB CONNECTION				
	Supply and Installation of Hose Bib connection, (from approved manufacturer) to suite the dia of the supply pipe with appropriate socket, and other necessary fittings (adapter, sockets, tees, bends, reducer etc), nut bolts etc, including short pipe required for installtion of Hose Bib. Connection pipe and valve , brass nozzle according to specifications, drawings and as directed by the Engineer.	No.	10	1035	10,350
5	VALVES & APPURTENANCES				
	Refer Section 08				

	Supply, Laying and Fixing of different types of valves Pakmade with 5 year replacement warranty with all accessories (union, gasket, flanges, reducers, bends etc) conforming to BS-5163 including connection, jointing and testing in accordance with the specifications (SCON OR APPROVED EQUIVALENT). Complete in all respect as shown in drawings or as directed by the Engineer				
a	60mm dia	No.	2	1610	3,220
b	50mm dia	No.	4	2760	11,040
c	20 mm dia	No.	10	517.5	5175
d	12 mm dia	No.	12	437	5,244
6	THRUST BLOCK				
	Laying, compacting, finishing and curing Plain Cement Concrete PCC 3000 psi in Thrust Blocks, complete in all respect as per drawing and approval of the Engineer.	Cum.	2	1840	3,680
7	VALVE CHAMBER FOR AIR VALVE AND GATE VALVE				
	RCC Valve chambers RCC (3500 psi concrete cylindrical strength) in given dimensions with crushed or broken stone including formwork, water stopper as specified, complete in all respect as shown in the drawings, specification and directed by the Engineer.				
a	Internal Size (900 mm x 900 mm) and 1500mm max depth	No.	7	18,975	132,825
8	PUMPS & APPURTENANCES				
8.1	Irrigation Pump	Set.	1	74,750	74,750
	Submersible pump and motor (One Duty and One Standby) with individual Variable Frequency Drive (VFD) for Automatic Irrigation Sprinkler System (LEO China 50WQ15-40-5.5 OR APPROVED EQUIVALENT) of given flow and head including, gate valves, check valves, foot valve, pressure transducers, float switch, Control Panel (weatherproof) with provision of connection for bride lights, suitable to installed in open				



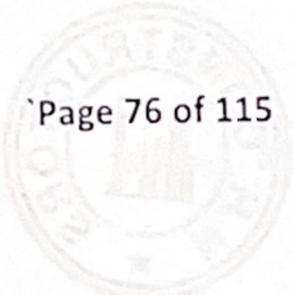
	air green area with motor, dry running protection, electric wiring, etc all accessories required for installation and operation. The medium for the pump is Potable Water (KWSB) mixed with tube-well water and/or Sewage Treated Water. The Pump Canopy suitable for installation in green area considering the aesthetics of the area. Flow = 52 gpm Head = 32m				
8.2	Fountain Pump Submersible Pump and Motor for Fountain (GOULDS DOMO 20T OR APPROVED EQUIVALENT) of given flow and head including, gate valves, check valves, dry running protection, Control Panel (weatherproof) with provision of space for fountain lights suitable to installed in open air green area with motor, electric wiring, float switch, isolation valve and all other accessories required for the installation and operation of pump. The medium for the pump is Potable Water (KWSB) mixed with tube-well water and/or Sewage Treated Water. A sump may be constructed in the pool if required to install the pump. Flow = 150 gpm Head = 6m	Set	1	51,750	51,750
9	SPRINKLER NOZZLES				
9.1	Part circle brass impact sprinkler with 19mm inlet, 12.8-15.5m throw radius, 3.97mm nozzle size and operating pressure of 2- 4.1 bar ((RainBird 35A-TNT OR APPROVED EQUIVALENT)	No.	10	747.5	7,475
9.2	Part circle brass impact sprinkler with 13mm inlet, 11.6-12.5m throw radius, 3.97mm nozzle size and operating pressure of 2- 3.5 bar (RainBird 25BPJ-FP-ADJ w/SBN-1 OR APPROVED EQUIVALENT)	No.	8	483	3,864
9.3	Part circle brass impact sprinkler with 13mm inlet, 6.7-13.7m throw radius, 2.78mm nozzle size and operating pressure of 1.7-4.1 bar	No.	4	483	1,932.



	(RainBird 2045 PJ (LAN-1) OR APPROVED EQUIVALENT)				
10	FOUNTAIN NOZZLES				
	Water level independent jet with 19 adjustable nozzles, and following specifications (Crystal Watercastle jet NWA125 OR PEM 290 3-tier 1-1/4 inch fountain head OR APPROVED EQUIVALENT) Flow: 8 m ³ /hr Spray height: 3m Horizontal spread: 3.7m	No.	4	2116	8,464
11	FOUNTAIN LIGHTS				
	Fountain light (minimum 36 LED lights in each light, 12 Volt & 3 watt each) four with each fountain (total 16 in number lights with four fountains), including wiring, breaker, transformer, control panel (weather protected) and all accessories complete in all respect	Set	1	41,400	41,400
12	DISMANTLING AND RESTORATION OF FOOTPATH				
	Dismantling and Restoration of footpath (as per the requirement of pipe laying and installation of the sprinkler) includes the dismantling or demolishing of curb stone, pavers, lean concrete/base course, under pavers, and reconstruction or relaying of the pavers (existing and/or new) upto its original condition as directed by the Engineer complete in all respect. The disposal of the debries to its designated places is also part of the work.	Sqm.	17	2760	46,920
13	COVERS AND FRAMES				
	Installation of C.I. covers and frames on (existing and new) chambers or manholes conforming to BS EN 124 of following sizes (square/circular shape) as per Engineers Direction				
a	450mm x 450mm or 450mm dia (Light Duty)	No.	4	4830	19,320



b	600mm x 600mm or 600mm dia (Light Duty)	No.	4	7475	29,900
14	MASONRY WORK				
	Providing and laying solid concrete blocks (min compressive strength of block 1200 psi) machine made solid block masonry, laid and jointed with 1:6 S.R cement sand machine mixed mortar using approved quality sand. Masonry to be laid in courses true to line, levelled, plumbed, properly cured, and also applied waterproof plaster 1:4. All work to be completed as per drawings, specifications and as directed by the Engineer complete in all respect.	Cum.	1	517.5	517.50
15	CORING				
	Providing and fixing M.S sleeves of 6" dia at existing concrete wall including cost of core cutting as directed by the Engineer complete in all respect. The disposal of the debris to its designated places is also part of the work.	No.	3	3450	10,350
16	TILE WORK				
16.1	Dismantling of existing pool tiles (walls and flooring tiles) including the dismantling and demolishing of marble at the periphery with removal of pipes and plumbing in the pool as well as the disposal of debris to its designated places as directed by the Engineer.	Sqm.	380	138	52,440
16.2	Providing and laying glazed ceramic tiles (12x24 inches) in any color and print (Imported CHINA/ Shabbir Tile OR APPROVED EQUIVALENT), laid and fixed with Cement Mortar 1:4 screed of 13mm thickness. Watering of old wall with roughening of screeding by cross-hatching and placement of tiles by soaking in water first and embedding in cement paste being buttered to give 6mm thick bed, set in neat cement and joints grouted with white/colored cement, complete in all respect as directed by the Engineer.	Sqm.	470	2415	1,135,050
16.3	Providing and laying of (11.5 x 23 inches approx.) marble, if required (of approved	Rm.	10	747.5	7475



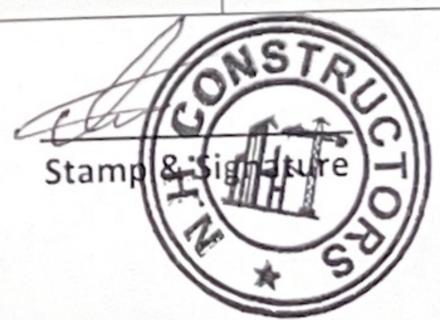
	colour and matt finish) at the periphery of the pool, laid and fixed with CM 1:4				
16.4	Providing and applying antifungal paint (JOTUN Fenomastic Hygiene Emulsion Matt Paint OR APPROVED EQUIVALENT) at the joints between the tiles matched with the tile color or transparent, applied in two coats with no more than 5 mm of overlap on either sides.	Sqm.	100	1708.9	170,890
TOTAL AMOUNT OF A			PKR	3,199,081.50	

(B) Bridge Rehabilitation Works

B.O.Q Item	Description	Unit	Quantity	Rate	Amount
17	Dismantling Works				
	Dismantling of existing bridge internal frame (without damaging the Main Girders), wooden planks and railing etc. with clearing site as per instruction of The Engineer and handover all salvageable item to Client and dispose the discarded material up to any lead and lift as per The Engineer instruction. It is required to visit the site prior to execution to understand the requirements, and submit a detailed method statement and fabrication/shop drawings for the Engineer's review and approval.	L.S	1	437,000	437,000
18	Concrete				
	Providing & laying approved P.C.C. concrete (Fair Face), having minimum compressive cylindrical strength 28 days of 3000 psi, at all damage places (bridge supporting of pond wall, bridge frame supporting internal wall within pond) including leveling, compacting & curing, including form work if any, completed in all respect as approved / directed by the Engineer.	Cft	50	1495	74,750
19	Repair of Existing MS Girder				



	Repair of existing M.S girder and removing rust with sandblasting, rubbing, re-weld any damaged or cracked welds using appropriate welding techniques and materials, minor surface defects, use epoxy resin fillers to restore the surface integrity before applying the protective coatings and apply a high-quality primer immediately after surface preparation to prevent flash rusting. Zinc-rich primers and apply coat of red oxide and two coats of enamel paint, finish with a topcoat (of approved brand and color) that provides UV resistance and aesthetic appeal completed in all respect as approved / directed by the Engineer.	Sft	300	1380	414,000
20	New MS Frame Structure				
	Providing, fabricating & fixing M.S. Framing Structure conforming to AISC specification with yield strength of 36 ksi (A36 steel). The new members should be fabricated with same size and thickness as that of the original members being replaced, welded to existing MS Girder/ Angle/Plate. All welding works shall be done with E70xx (i.e electrode strength of 482mpa, low hydrogen type) and to be grind the surface smoothly after welding apply anti rust paint including the cost of red oxide, epoxy and 3 coat of enamel paint etc. complete with hoisting and erecting in its existing location/position. All fabrication, erection and welding to conform to AISC & AWS standards. It is required to visit the site prior to execution to understand the requirements, and submit a detailed method statement and fabrication/shop drawings for the Engineer's review and approval	Kgs.	700	460	322,000
21	Railing (Re-Fixing)				
	Repair and refixing S.S Railing with SS brush finish at horizontal & vertical supported including anchor bolt welding, grinding, polishing etc. completed in all respect as approved / directed by the Engineer.	Rft	60	2760	165,600
22	Fixed Glazing under Existing Hand Rail				



	Providing & Fixing frameless fixed glazed under existing hand rail using 12mm thick tempered glass, with frosted film (graphics / color approved by the client). Fixing with vertical post including approved stainless steel hardware, patch fitting etc. completed in all respect as approved / directed by the Engineer.				
	Glass Panel Size: 1200 mm x 800 mm (14.0 Nos.)	Sft	150	1035	155,250
23	Wooden Planks / Walkway				
	Provide, make and install solid core wood of sheesham, red owk or equivalent with paneling as per existing location/sizes, The thickness shall be 2" inch or as specified, fixing with approved stainless steel screws & washers should be of suitable length and correct diameter and should be fixed with screw driver (not by hammering). All wooden material to be properly treated with termite proofing chemical and apply high-quality waterproof sealants or wood sealers to protect the wood from moisture penetration, water base Polyurethane polish finish with completed in all respect as approved / directed by the Engineer.	Sft	400	7130	2,852,000
24	Epoxy Paint				
	Providing and applying Epoxy paint for waterproofing on bottom of wooden planks and wall of approved brand, including scaffolding etc. complete in all respect at any height with completed in all respect as approved / directed by the Engineer.	Sft	500	2530	1,265,000
25	Electrical Works / Lighting Fixtures				
	Supply, Installation, Testing & Commissioning of the Neon LED Strip Lights for bridge, flexible and IP65 Waterproof Kit with ballast, drivers, mounting accessories, specified lamps including light point wiring with PVC conduit and accessories including switch board etc. measurements only linear length	Rft	60	1035	62,100

of LED strip, completed in all respect as approved / directed by the Engineer.			
TOTAL AMOUNT OF B	PKR	5,747,700	

TOTAL AMOUNT OF A+B	PKR	8,946,781.50
ADD 8% SRB	PKR	715,742.52
GRAND TOTAL AMOUNT WITH TAX	PKR	9,662,524.02

Grand Total Amount in Words:

Rupees: Nine Million Six lac Sixty-two thousand

Five hundred twenty-four rupees & two paise only. x — x

