

IRRIGATION SYSTEM - BOQ			
S. No.	Item Description	Unit	Qty
1	Galvanized Iron (GI) Pipe		
	Supply, installation, testing, and commissioning of medium-class galvanized iron (GI) pipes conforming to IS:1239 (Part 1) or equivalent, with socketed ends and screwed/threaded joints using approved pipe fittings.		
1.1	DN 150	Mtr	1400
1.2	DN 100	Mtr	540
1.3	DN 80	Mtr	260
1.4	DN 65	Mtr	1200
1.5	DN 50	Mtr	1100
1.6	DN 40	Mtr	4700
1.7	DN 25	Mtr	200
2	Irrigation Sprinkler System		
	Supply and installation of impact-type/rotor-type irrigation sprinklers, model HT-05P or approved equivalent, with throw radius 10.8 m (180° and 90° patterns) and micro-sprinklers with 3 m throw for localized areas. Sprinklers shall operate at a minimum of 3.0 bar pressure and have a flow rate of approximately 14.76 LPM.		
2.1	Sprinkler 360°, Radius of throw 10.8 m	Nos	316
2.2	Sprinkler 180°, Radius of throw 10.8 m	Nos	59
2.3	Sprinkler 90°, Radius of throw 10.8 m	Nos	5
2.4	Sprinkler 180°, Radius of throw 3 m	Nos	41
3	Brass Gate Valve		
	Supply, installation, and testing of heavy-duty brass gate valves conforming to IS:778 or equivalent, with screwed ends for low/medium pressure applications. Valves shall have a non-rising stem, full bore, and handwheel operation, suitable for isolation of irrigation zones.		
	Size DN 40	Nos	33
4	Y-Strainer		
	Supply and installation of Y-type strainer with cast brass/bronze body and stainless-steel mesh screen, complete with threaded ends to match pipework. Strainer shall be installed upstream of zone valves to protect sprinklers from debris, with a removable screen for easy cleaning.		
	Size DN 40	Nos	33

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S. No.	Item Description	Unit	Qty
5	Air Vent		
	Supply and installation of 40 mm diameter automatic air release valve suitable for irrigation applications. Unit shall be designed to release trapped air during system filling and operation, with corrosion-resistant body and float, and installed at system as indicated in the drawings.		
	Size DN 40	Nos	33
6	Backflow Preventer		
	Supply and installation of backflow prevention device (double check valve assembly or reduced pressure zone assembly as per IS/ASME standards) to prevent reverse flow of water from irrigation system to the potable supply.		
	Size DN 150	Nos	1
7	Gate Valve (Pump Discharge)		
	Supply, installation, and testing of flanged-end gate valve, 6-inch nominal bore, PN16 pressure rating, cast iron/ductile iron body with non-rising stem and handwheel operation, installed on pump discharge line for isolation purposes.		
	Size DN 150	Nos	1
8	Check Valve (Pump Discharge)		
	Supply, installation, and testing of flanged-end swing check valve, 6-inch nominal bore, PN16 pressure rating, cast iron/ductile iron body with bronze seat, installed on pump discharge line to prevent reverse flow when pump is stopped.		
	Size DN 150	Nos	1
9	Openwell Submersible Pump		
	Supply, installation, testing, and commissioning of Lubi LHS-40 openwell submersible pump, size 65 × 50 mm, rated flow 22.5 LPS (1350 LPM) at rated head of 68 m, with motor power 22 kW / 30 HP, 415 V, 3-phase, 50 Hz, maximum current 50 A, and speed 2900 RPM. Pump shall be provided complete with suitable base, discharge piping connection, non-return valve, and gate valve on discharge line. Configuration: 1 duty + 1 standby arrangement, each pump capable of delivering the full system demand.	Set	1