Nagpur Municipal Corporation, Nagpur
(Electrical Department)

Notice inviting rates from agencies like licenced electrical Contractor /dealers / manufacturer/ vendors for Non-CSR item of following works which involves various items. These vendor/ contractors / dealers / manufacturer shall submit rates of these works in sealed envelops for various items to the office of the undersigned. The agencies should mention about taxes as applicable. These NON-CSR items list is available on Website (https://nmcnagpur.gov.in)

Name of Department : Electrical Department

Name of the Executive Engineer (Electrical) : Shri R.U.Rathod

Sr.no	Name of Work	Date of submission of NON-CSR item rates for various work up to 3.00 P.M.	Date of opening of NON-CSR item rates for various work at 4.00 P.M. (if possible)
1	NON – CSR Item rate for Musical Fountain within Gandhi sagar Lake located in the city of Nagpur (Including providing & Erecting rate with GST) **(2nd call)**	24/07/2025	25/07/2025

Note :- These rates will be used for deciding rates / Estimation purpose only

1) Date of submission of NON-CSR item rates - 24.07.2025

2) Date of opening of NON-CSR item rates - 25.07.2025

Executive Engineer (Electrical.),
N.M.C. Nagpur

OFFICE OF THE MUNICIPAL CORPORATION NAGPUR.

ELECTRICAL DEPARTMENT

BILLS OF QUANTITY

Name of work :- Non-Csr item rate for providing, erecting & commissioing of Musical Fountion within Gandhi sagar lake located in the city of Nagpur.

S No.	Component	Description	Qty	Unit	Rate
		2D Robotic Jets			
a	2D Robotic Nozzles	SITC of the unit is constructed using high-quality materials to ensure durability and performance. The nozzle is made from **SS 304 or Brass (V Jet type),** while the gear box is constructed from cast aluminium. The body is also fabricated using SS 304 for strength and corrosion resistance. The stepper cover is made of nylon, and the sensor holder is composed of PVC material. The unit features a **DN 40 size** specification and is driven by a single stepper motor. An optical sensor (1 No.) is integrated for accurate positioning and control. The gross weight of the unit is approximately **8 kg,** and it operates on a **48V DC power supply.** A digital stepper driver is required for operation, though it is not included with the unit. Control is achieved through the DMX protocol, ensuring compatibility with standard show control systems. The unit is designed for use with fresh water as the operating medium and has an ingress protection rating of **IP 65,** making it suitable for outdoor installations. This system is intended for above-water installation. The jet height is variable and depends on the pump capacity used. A light holder is included, and the light moves along with the nozzle. Connection interfaces are provided for **1 stepper motor, 1 sensor, and 1 light.** The movement capability of the unit allows for **90 degrees of motion on a single axis,** enabling dynamic and synchronized effects.	1	nos	
b	Submersible Pump	SITC of high discharge and high head **IP68** rated pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The equipment is a single-stage centrifugal pump designed to operate at a rated speed of **2900 RPM** with a maximum head of **16.8 meters.** It has a power rating of **1 HP (0.75 kW)** and includes one stainless-steel impeller. The pump conforms to **ISO 9006:2012** Grade 3B curve tolerance. Its construction includes a stainless steel (SS 304) impeller and housing, with an **SS 410 shaft** for enhanced strength and corrosion resistance. The pump is driven by a 2-pole induction motor operating at **380V and 50 Hz frequency,** drawing **3.7 A** current with an efficiency of **70.1%.** Designed for use with water as the working medium, it can handle fluid temperatures up to **90°C,** with a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s,** making it ideal for small-scale water features and precision-controlled hydraulic systems.	1	nos	
c	Lights (RGB LED 18x3w with DMX control)	SITC of **DMX controlled 54W RGB LED light** with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main. The offered item is a submersible LED color-changing light fixture suitable for underwater applications, with a working input of **12V AC** and control via DMX protocol. The gross weight of the unit is approximately **1.30 kg.** The fixture is housed in a corrosion-resistant body made of SS and Noryl, with an epoxy sealing for internal insulation. The light emits RGB illumination with a total power consumption of **36W (±10%)** and is capable of both static and dynamic color effects. The fixture includes **12 LEDs** and undergoes multiple quality checks, including DMX address configuration and tests for internal sealing, water ingress, and bulb glow uniformity. Mechanical assembly includes gaskets, moulding, and stainless steel screws. The light is packed in a box or wooden crate for safe transportation and is suitable for architectural and decorative water feature applications.	1	nos	
d	Cable: Pumps	1.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
e	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
f	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
g	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
h	Cable: Stepper motor	1.5 sq mm 4 core double PVC sheathed copper cable	1	mtr	
i	Cable: Stepper sensor	1 sq mm 3 core double PVC sheathed shielded copper cable	1	mtr	
j	SS Frame with uPVC / FRP Floats	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	

S No.	Component	Description	Qty	Unit	Rate
a	3D Robotic Nozzles	SITC of twin axis robotic 3D nozzle with **40mm inlet and 12mm outlet** capable of smooth rotation complete with **SS304** bends, gear box, water proof stepper motor, sensor and operating electronics designed for operating at 90 degree. Including necessary pipes, fittings, and accessories required to connect. The proposed system is a 3D jet ring with a ring **diameter of 9,000 mm (9 meters),** incorporating a twin-axis rotating 3D jet mechanism. The unit operates using low-voltage stepper motors with DMX control and requires an operating voltage of **48V DC.** The system supports the **DMX512 control** protocol and has an ingress protection rating of **IP 65 (for outdoor use).** The assembly is mounted on flanged base plates over an **8 mm thick stainless steel base plate** and is independent of water level. It operates under a pressure range of **1.5 to 3.0 bar (recommended 2.0 bar),** with flow rates per nozzle ranging from **25 to 60 LPM** depending on the model. Spray height is adjustable based on water pressure and ranges from **1.0 to 4.0 meters.** The jet offers a rotation **angle of ±45°** on a single axis, allowing for dynamic visual effects in fountain installations.	1	nos	
b	Submersible Pump	SITC of high discharge and high head **IP68** rated pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The equipment is a single-stage centrifugal pump designed to operate at a rated speed of **2900 RPM** with a maximum head of **16.8 meters.** It has a power rating of **1 HP (0.75 kW)** and includes one stainless-steel impeller. The pump conforms to **ISO 9006:2012** Grade 3B curve tolerance. Its construction includes a stainless steel (SS 304) impeller and housing, with an **SS 410 shaft** for enhanced strength and corrosion resistance. The pump is driven by a 2-pole induction motor operating at **380V and 50 Hz frequency,** drawing **3.7 A** current with an efficiency of **70.1%.** Designed for use with water as the working medium, it can handle fluid temperatures up to **90°C,** with a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s,** making it ideal for small-scale water features and precision-controlled hydraulic systems.	1	nos	
c	Lights (RGB LED 18x3w with DMX control)	SITC of **DMX controlled 54W RGB LED light** with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main. The offered item is a submersible LED color-changing light fixture suitable for underwater applications, with a working input of **12V AC** and control via DMX protocol. The gross weight of the unit is approximately **1.30 kg.** The fixture is housed in a corrosion-resistant body made of SS and Noryl, with an epoxy sealing for internal insulation. The light emits RGB illumination with a total power consumption of **36W (±10%)** and is capable of both static and dynamic color effects. The fixture includes **12 LEDs** and undergoes multiple quality checks, including DMX address configuration and tests for internal sealing, water ingress, and bulb glow uniformity. Mechanical assembly includes gaskets, moulding, and stainless steel screws. The light is packed in a box or wooden crate for safe transportation and is suitable for architectural and decorative water feature applications.	1	nos	
d	Cable: Pumps	1.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
e	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
f	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
g	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
h	Cable: Stepper motor	1.5 sq mm 4 core double PVC sheathed copper cable	1	mtr	
i	Cable: Stepper sensor	1 sq mm 3 core double PVC sheathed shielded copper cable	1	mtr	
j	SS Frame with uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
		Chasing Jets			
a	Nozzle	SITC of **Vertical jet nozzle with 25mm inlet and 12mm outlet** in SS / Brass construction capable of a **15 degree + / -** adjustment from vertical with integrated flow straightner for smooth flow of the water jet for the required jet height. The proposed component is a smooth bore vertical jet designed for a fixed direction water display. It is constructed from high-quality cast bronze or brass, ensuring durability and corrosion resistance. Available inlet sizes range from **20 mm to 100 mm**, with customization options for both bore and inlet dimensions as per design requirements. The jet is water-level independent, meaning its performance remains unaffected by variations in water level. It can be mounted vertically (standard) or angled using **90° bends** depending on the application. For enhanced flexibility, a universal joint is recommended as an accessory to allow directional adjustment of the jet stream.	1	nos	
b	SS header 50NB	3m long SS Header with 4 SS nipples each.	1	nos	

S No.	Component	Description	Qty	Unit	Rate
c	Submersible Pump	SITC of high discharge and high head **IP68** rated pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The pump is a single-stage centrifugal type designed to operate at a rated speed of **2900 RPM,** delivering a rated head of **19 meters and a maximum head of 27 meters.** It provides a rated flow of **420 LPM** and is powered by a **3 HP (2.2 kW)** motor. The pump includes a single stainless-steel impeller and adheres to **ISO 9906:2012** Grade 3B curve tolerance standards. All major components—including the pump shaft, impeller, and housing—are constructed from stainless steel for superior corrosion resistance and durability. Electrically, the pump runs on **380V** at a frequency of **50 Hz,** drawing a rated current of **5.6 A.** It uses a 2-pole motor with an efficiency of **79.9%.** The pump is designed for water as the working medium, capable of handling fluid temperatures up to **30°C,** with a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s.**	1	nos	
d	Lights (RGB LED 18x3w with DMX control)	SITC of **DMX controlled 54W RGB LED light** with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main. The offered item is a submersible LED color-changing light fixture suitable for underwater applications, with a working input of **12V AC** and control via DMX protocol. The gross weight of the unit is approximately **1.30 kg.** The fixture is housed in a corrosion-resistant body made of SS and Noryl, with an epoxy sealing for internal insulation. The light emits RGB illumination with a total power consumption of **36W (±10%)** and is capable of both static and dynamic color effects. The fixture includes **12 LEDs** and undergoes multiple quality checks, including DMX address configuration and tests for internal sealing, water ingress, and bulb glow uniformity. Mechanical assembly includes gaskets, moulding, and stainless steel screws. The light is packed in a box or wooden crate for safe transportation and is suitable for architectural and decorative water feature applications.	1	nos	
e	Solenoid Valve	Fast acting Solenid Valve in Brass / SS 25mm	1	nos	
f	Cable: Pump	2.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
g	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
h	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
h	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
i	Cable: Solenoid	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
j	SS Frame with uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
a	Nozzle	SITC of Vertical jet nozzle with **50mm inlet and 15mm outlet** in SS / Brass construction capable of a **15 degree + / -** adjustment from vertical with integrated flow straightner for smooth flow of the water jet for the required jet height. The offered jet system features dual laminar streams with an arched trajectory and is constructed from high-grade **SS-304,** brass, or bronze for corrosion resistance and durability. It supports BSP threaded (standard) or optional flanged inlet connections, and is available in multiple inlet sizes including **20 mm, 25 mm, 40 mm, and 50 mm.** Designed to operate under a pressure range of 1**.0 to 3.5 bar (with 2.5 bar recommended for optimal arches),** the system provides a flow range of **10 to 150 LPM per outlet,** depending on model and pressure. It can achieve spray distances up to **16 meters.** The unit functions independently of water level and is intended for horizontal mounting on pipe sub or flange systems. A stainless steel mounting plate with a **410 mm bolt hole circle** is included for secure installation. The system is **IP 65 rated** for ingress protection and is compatible with narrow-beam LED uplights or optional fiber-optic lighting for enhanced nighttime effects.	1	nos	
b	Submersible Pump	SITC of high discharge and high head **IP68 rated** pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The pump is a single-stage centrifugal type designed to operate at a rated speed of **2900 RPM,** with a maximum head of **36 meters.** It is rated for a power output of **5.5 HP (4 kW)** and includes a single stainless-steel impeller. The design conforms to **ISO 9906:2012** Grade 3B for curve tolerance. The pump impeller and shaft are made from SS 304 stainless steel, ensuring durability and corrosion resistance. It is driven by a 2-pole induction motor operating at **380V and 50 Hz,** drawing a rated current of **9.7 A** with a power factor of **0.87** and an operational efficiency of **81.9%.** The pump is suitable for use with clean water at temperatures up to **30°C,** having a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s,** making it ideal for high-performance fluid handling in fountain or utility systems.	1	nos	

S No.	Component	Description	Qty	Unit	Rate
c	Lights (RGB LED 18x3w with DMX control)	SITC of **DMX controlled 54W RGB LED light** with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main. The offered item is a submersible LED color-changing light fixture suitable for underwater applications, with a working input of **12V AC** and control via DMX protocol. The gross weight of the unit is approximately **1.30 kg.** The fixture is housed in a corrosion-resistant body made of SS and Noryl, with an epoxy sealing for internal insulation. The light emits RGB illumination with a total power consumption of **36W (±10%)** and is capable of both static and dynamic color effects. The fixture includes **12 LEDs** and undergoes multiple quality checks, including DMX address configuration and tests for internal sealing, water ingress, and bulb glow uniformity. Mechanical assembly includes gaskets, moulding, and stainless steel screws. The light is packed in a box or wooden crate for safe transportation and is suitable for architectural and decorative water feature applications.	1	nos	
d	Cable: Pumps	2.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
e	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
f	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
g	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
h	SS Frame with uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
		Sunburst Jet			
a	Nozzle	SITC of Vertical jet nozzle with **25mm inlet and 10mm outlet** in SS / Brass construction capable of a **15 degree + / -** adjustment from vertical with integrated flow straightner for smooth flow of the water jet for the required jet height. The proposed jet is a multi-directional radial fan spray type designed to create aesthetic effects such as **sunburst, fan, or peacock tail patterns.** It is constructed using corrosion-resistant materials including cast brass, bronze, or stainless steel **(SS-304/316),** depending on the model. The jet includes BSP threaded or flanged inlet connections and features a vertical upward nozzle orientation, with adjustability as per design requirements. It operates at a pressure range of **1.0 to 3.5 bar (recommended),** and is water-level dependent, requiring installation above the waterline. Spray height varies between **1.5 to 5 meters depending on pump capacity** and nozzle size, with a recommended flow rate ranging from **50 to 400 LPM** based on model selection. The nozzle is designed for direct mounting over a sump or pipe extension. It is highly wind-sensitive and therefore best suited for low-wind or enclosed environments. The unit is compatible with optional LED underwater lighting to enhance visual impact in night-time displays.	1	nos	
b	SS header 50NB	2m long SS Header with 7 SS nipples each	1	nos	
c	Bal lvalves	25mm ball valves in SS / Brass	1	nos	
d	Submersible Pump	SITC of high discharge and high head **IP68 rated** pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The pump is a single-stage centrifugal type designed to operate at a rated speed of **2900 RPM,** with a maximum head of **36 meters.** It is rated for a power output of **5.5 HP (4 kW)** and includes a single stainless-steel impeller. The design conforms to **ISO 9906:2012** Grade 3B for curve tolerance. The pump impeller and shaft are made from SS 304 stainless steel, ensuring durability and corrosion resistance. It is driven by a 2-pole induction motor operating at **380V and 50 Hz,** drawing a rated current of **9.7 A** with a power factor of **0.87** and an operational efficiency of **81.9%.** The pump is suitable for use with clean water at temperatures up to **30°C,** having a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s,** making it ideal for high-performance fluid handling in fountain or utility systems.	1	nos	
e	Lights (RGB LED 18x3w with DMX control)	SITC of **DMX controlled 54W RGB LED light** with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main. The offered item is a submersible LED color-changing light fixture suitable for underwater applications, with a working input of **12V AC** and control via DMX protocol. The gross weight of the unit is approximately **1.30 kg.** The fixture is housed in a corrosion-resistant body made of SS and Noryl, with an epoxy sealing for internal insulation. The light emits RGB illumination with a total power consumption of **36W (±10%)** and is capable of both static and dynamic color effects. The fixture includes **12 LEDs** and undergoes multiple quality checks, including DMX address configuration and tests for internal sealing, water ingress, and bulb glow uniformity. Mechanical assembly includes gaskets, moulding, and stainless steel screws. The light is packed in a box or wooden crate for safe transportation and is suitable for architectural and decorative water feature applications.	1	nos	
f	Cable: Pump	2.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
g	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	

S No.	Component	Description	Qty	Unit	Rate
h	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
i	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
j	SS Frame with 2m uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
a	Nozzle	SITC of Vertical jet nozzle with **80mm inlet and 25mm outlet** in SS / Brass construction capable of a **15 degree + / -** adjustment from vertical with integrated flow straightner for smooth flow of the water jet for the required jet height. The Smooth Vertical Bore or Geyser Jet is a high-performance fountain jet constructed from durable materials such as cast bronze, brass, or stainless steel (**SS-304/SS-316**). It supports various inlet sizes including **25 mm, 40 mm, 50 mm, 65 mm, 75 mm, and 100 mm,** with BSP threaded or flanged connection options. Operating efficiently at a pressure range of **2 to 6 bars,** the jet is self-levelling and independent of water level, requiring vertical mounting for optimal performance. It delivers a spray height ranging from **5 to 50 meters, depending on the model and pump pressure,** and supports flow rates from **100 LPM up to 3500+ LPM.** While offering dynamic vertical displays, the jet is highly sensitive to wind deflection, especially at spray heights above **10 meters.** Designed for dry mounting above the waterline, it does not require ingress protection and is fully compatible with underwater narrow-beam LED lighting for enhanced visual appeal.	1	nos	
b	Submersible Pump	SITC of high discharge and high head **IP68 rated** pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The pump is a single-stage centrifugal type designed to operate at a rated speed of **2900 RPM,** with a maximum head of **36 meters.** It is rated for a power output of **5.5 HP (4 kW)** and includes a single stainless-steel impeller. The design conforms to **ISO 9906:2012** Grade 3B for curve tolerance. The pump impeller and shaft are made from SS 304 stainless steel, ensuring durability and corrosion resistance. It is driven by a 2-pole induction motor operating at **380V and 50 Hz,** drawing a rated current of **9.7 A** with a power factor of **0.87** and an operational efficiency of **81.9%.** The pump is suitable for use with clean water at temperatures up to **30°C,** having a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s,** making it ideal for high-performance fluid handling in fountain or utility systems.	1	nos	
c	Lights (RGB LED 18x3w with DMX control)	SITC of **DMX controlled 54W RGB LED light** with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main. The offered item is a submersible LED color-changing light fixture suitable for underwater applications, with a working input of **12V AC** and control via DMX protocol. The gross weight of the unit is approximately **1.30 kg.** The fixture is housed in a corrosion-resistant body made of SS and Noryl, with an epoxy sealing for internal insulation. The light emits RGB illumination with a total power consumption of **36W (±10%)** and is capable of both static and dynamic color effects. The fixture includes **12 LEDs** and undergoes multiple quality checks, including DMX address configuration and tests for internal sealing, water ingress, and bulb glow uniformity. Mechanical assembly includes gaskets, moulding, and stainless steel screws. The light is packed in a box or wooden crate for safe transportation and is suitable for architectural and decorative water feature applications.	1	nos	
d	Cable: Pump	2.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
e	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
f	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
g	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
h	SS Frame with 2m uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
		Center Jet			
a	Nozzle	SITC of Vertical jet nozzle with 65mm inlet and 20mm outlet in SS / Brass construction capable of a 15 degree + / - adjustment from vertical with integrated flow straightner for smooth flow of the water jet for the required jet height.	1	nos	

S No.	Component	Description	Qty	Unit	Rate
b	Submersible Pump	SITC of high discharge and high head **IP68 rated** pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The pump is a single-stage centrifugal type designed to operate at a rated speed of **2900 RPM,** with a maximum head of **36 meters.** It is rated for a power output of **5.5 HP (4 kW)** and includes a single stainless-steel impeller. The design conforms to **ISO 9906:2012** Grade 3B for curve tolerance. The pump impeller and shaft are made from SS 304 stainless steel, ensuring durability and corrosion resistance. It is driven by a 2-pole induction motor operating at **380V and 50 Hz,** drawing a rated current of **9.7 A** with a power factor of **0.87** and an operational efficiency of **81.9%.** The pump is suitable for use with clean water at temperatures up to **30°C,** having a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s,** making it ideal for high-performance fluid handling in fountain or utility systems.	1	nos	
c	Lights (RGB LED 18x3w with DMX control)	SITC of **DMX controlled 54W RGB LED light** with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main. The offered item is a submersible LED color-changing light fixture suitable for underwater applications, with a working input of **12V AC** and control via DMX protocol. The gross weight of the unit is approximately **1.30 kg.** The fixture is housed in a corrosion-resistant body made of SS and Noryl, with an epoxy sealing for internal insulation. The light emits RGB illumination with a total power consumption of **36W (±10%)** and is capable of both static and dynamic color effects. The fixture includes **12 LEDs** and undergoes multiple quality checks, including DMX address configuration and tests for internal sealing, water ingress, and bulb glow uniformity. Mechanical assembly includes gaskets, moulding, and stainless steel screws. The light is packed in a box or wooden crate for safe transportation and is suitable for architectural and decorative water feature applications.	1	nos	
d	Cable: Pump	2.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
e	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
f	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
g	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
h	SS Frame with uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
		Revolving Spiral Jets			
a	Nozzle	SITC of revolving spiral jet in SS / Brass construction capable of being adjusted for speed of rotation and with an integrated flow straightner for smooth flow of the water jet for the required jet height. The Spiral or Rotating Spiral Jet is a hydraulically driven (water-powered rotation) fountain jet designed for dynamic water displays. Constructed from high-quality materials such as **SS-304, SS-316, brass, or bronze,** it is available with BSP threaded or flanged connections and supports inlet sizes of **25 mm, 40 mm, and 50 mm.** The jet operates at a pressure range of **1.5 to 4.0 bar** and supports flow rates between **150 and 600 LPM.** It can create a spray diameter of up to **2.5 to 5 meters,** depending on the nozzle model, and rotates at a speed of **3 to 12 RPM,** depending on pressure. The system is water level independent and can be mounted vertically or in an inclined orientation. It is compatible with underwater RGBW DMX lights, which are recommended for night effects. As it is designed for dry zone mounting, ingress protection is not required.	1	nos	
b	Submersible Pump	SITC of high discharge and high head **IP68** rated pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The equipment is a single-stage centrifugal pump designed to operate at a rated speed of **2900 RPM** with a maximum head of **16.8 meters.** It has a power rating of **1 HP (0.75 kW)** and includes one stainless-steel impeller. The pump conforms to **ISO 9006:2012** Grade 3B curve tolerance. Its construction includes a stainless steel (SS 304) impeller and housing, with an **SS 410 shaft** for enhanced strength and corrosion resistance. The pump is driven by a 2-pole induction motor operating at **380V and 50 Hz frequency,** drawing **3.7 A** current with an efficiency of **70.1%.** Designed for use with water as the working medium, it can handle fluid temperatures up to **90°C,** with a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s,** making it ideal for small-scale water features and precision-controlled hydraulic systems.	1	nos	

S No.	Component	Description	Qty	Unit	Rate
c	Lights (RGB LED 18x3w with DMX control)	SITC of **DMX controlled 54W RGB LED light** with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main. The offered item is a submersible LED color-changing light fixture suitable for underwater applications, with a working input of **12V AC** and control via DMX protocol. The gross weight of the unit is approximately **1.30 kg.** The fixture is housed in a corrosion-resistant body made of SS and Noryl, with an epoxy sealing for internal insulation. The light emits RGB illumination with a total power consumption of **36W (±10%)** and is capable of both static and dynamic color effects. The fixture includes **12 LEDs** and undergoes multiple quality checks, including DMX address configuration and tests for internal sealing, water ingress, and bulb glow uniformity. Mechanical assembly includes gaskets, moulding, and stainless steel screws. The light is packed in a box or wooden crate for safe transportation and is suitable for architectural and decorative water feature applications.	1	nos	
d	Cable: Pumps	2.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
e	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
f	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
g	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
h	SS Frame with uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
		Inward Crown Ring			
a	Nozzles	SITC of Vertical jet nozzle with **20mm inlet and 6mm outlet** in SS / Brass construction capable of a **15 degree + / -** adjustment from vertical with integrated flow straightner for smooth flow of the water jet for the required jet height. The jet system features multiple clear stream jets arranged in a circular ring to create an inward arcing dome or crown-shaped water pattern. It is constructed using **SS-304, SS-316, brass, or bronze** for durability and corrosion resistance. The ring diameter ranges from **300 mm to 1500 mm,** with custom sizes available, and supports **6 to 36 jets depending on the ring size.** The jets are angled inward at **25°–45°** to achieve the crown effect. Flow rates range from **100 to 1000+ LPM,** depending on the number of jets and operating pressure, with inlet sizes between **1.0" and 2.5"** BSP or flanged as per the configuration. The system operates within a pressure range of **1.0 to 3.5 bar** and is independent of water level. It is designed for horizontal mounting, typically flat on a ring base supported by a pipe stub or anchoring plate, and is compatible with RGBW underwater lighting systems for visually enhanced nighttime displays.	1	nos	
b	SS header 50NB	2m long SS Header with 12 SS nipples each.	1	nos	
c	Submersible Pump	SITC of high discharge and high head **IP68** rated pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The pump is a single-stage centrifugal type designed to operate at a rated speed of **2900 RPM,** delivering a rated head of **19 meters and a maximum head of 27 meters.** It provides a rated flow of **420 LPM** and is powered by a **3 HP (2.2 kW)** motor. The pump includes a single stainless-steel impeller and adheres to **ISO 9906:2012** Grade 3B curve tolerance standards. All major components—including the pump shaft, impeller, and housing—are constructed from stainless steel for superior corrosion resistance and durability. Electrically, the pump runs on **380V** at a frequency of **50 Hz,** drawing a rated current of **5.6 A.** It uses a 2-pole motor with an efficiency of **79.9%.** The pump is designed for water as the working medium, capable of handling fluid temperatures up to **30°C,** with a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s.**	1	nos	
d	Lights (RGB LED 12x3w with DMX control)	SITC of DMX controlled 36W RGB LED light with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main	1	nos	
e	Cable: Pump	2.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
f	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
g	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
h	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
i	SS Frame with 2m uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
		Outward Crown Ring			

S No.	Component	Description	Qty	Unit	Rate
a	Nozzles	SITC of Vertical jet nozzle with **20mm inlet and 6mm outlet** in SS / Brass construction capable of a **15 degree + / -** adjustment from vertical with integrated flow straightner for smooth flow of the water jet for the required jet height. This fountain system features a **4000 mm (4 m) diameter ring** composed of single smooth-bore jets arranged outwardly at an angle. The ring houses **24 evenly spaced nozzles**, typically set at **533 mm center-to-center spacing.** The nozzles and manifold are made of high-grade **SS-316** stainless steel, ensuring durability and corrosion resistance. Each jet is angled **30°–45°** outward from the vertical to create a dynamic water effect. The system operates at a pressure range of **1.0–3.5 bar,** with a **recommended value of 2.0 bar,** and each nozzle supports a flow rate between **20 and 80 LPM,** depending on the model. Spray heights range from **1.0 to 5.5 meters,** influenced by pressure variations, and the system functions independently of water level. It connects via a 1" BSP threaded inlet and allows for manual pressure control or optional DMX-based control using a pump VFD. The ingress protection is rated at **IP 55 (dry zone only),** and the entire unit mounts securely onto a stainless steel base plate with **4 × Ø 19 mm bolts on a 110 mm PCD.**	1	nos	
b	SS header 50NB	2m long SS Header with 12 SS nipples each.	1	nos	
c	Submersible Pump	SITC of high discharge and high head **IP68** rated pump in **SS 304** suitable for operating the above nozzle. MOC of pump housing, shaft and impeller is SS 304 and insulation **class is H.** The pump is a single-stage centrifugal type designed to operate at a rated speed of **2900 RPM,** delivering a rated head of **19 meters and a maximum head of 27 meters.** It provides a rated flow of **420 LPM** and is powered by a **3 HP (2.2 kW)** motor. The pump includes a single stainless-steel impeller and adheres to **ISO 9906:2012** Grade 3B curve tolerance standards. All major components—including the pump shaft, impeller, and housing—are constructed from stainless steel for superior corrosion resistance and durability. Electrically, the pump runs on **380V** at a frequency of **50 Hz,** drawing a rated current of **5.6 A.** It uses a 2-pole motor with an efficiency of **79.9%.** The pump is designed for water as the working medium, capable of handling fluid temperatures up to **30°C,** with a density of **998.3 kg/m³** and a kinematic viscosity of **1.005 mm²/s.**	1	nos	
d	Lights (RGB LED 12x3w with DMX control)	SITC of DMX controlled 36W RGB LED light with LED Chips mounted on a multilayered aluminium PCB plate with high quality narrow beam optics, inside a temperature regulated Noryl body with IP68 rating. Cable entry points to be filled with electrical grade epoxy for added protection. Light should be suitable for dry as well as underwater operation complete with submersible cables, connectors and consumables etc required for connecting the light power and signal cables to the main	1	nos	
e	Cable: Pump	2.5 sq mm 3 core double PVC sheathed copper cable	1	mtr	
f	Cable: Light Power	2.5 sq mm 2 core double PVC sheathed copper cable	1	mtr	
g	Cable: Light Signal	1 sq mm 2 core double PVC sheathed shielded copper cable	1	mtr	
h	Junction Box for DMX 512 Lights	SITC of IP67 rated junction box in polycarbonate body and polyamide cover screws with suitable sized IP68 PVC cable glands with neoprene seals, Cable entry points in the junction box to be filled with electrical grade silicon sealant for complete protection from water ingress.	1	nos	
i	SS Frame with 2m uPVC / FRP Floats & Anchor Belts	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Jet with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
		LASER			
a	5w RGB Laser with integrated software	SITC of laser system features high-powered RGB diodes, providing red at **1200 mW (638 nm), green at 2000 mW (520 nm), and blue at 3600 mW (450 nm), totaling 6800 mW output.** It produces a **5 mm diameter beam** through its projector window, with a full-angle beam divergence of **1.2 mrad,** and operates with analog modulation at **50 kHz under Class IV** laser classification. The integrated galvo scanner performs at **40Kpps @ 8°, ILDA test pattern,** and supports a **maximum scan angle of 60°.** Control is managed through ILDA-in (differential) and ILDA-out interfaces, with safety ensured via a key switch and **5-pin XLR interlock.** Optional embedded controllers such as Moncha Lite or Pangolin FB4 can be included upon request. Thermal regulation is achieved using active cooling with TEC Peltier elements and a 50 mm thermal-controlled fan × 2 for ventilation. Electrically, it operates on **AC 110V–240V** with a maximum power consumption of **350W.** This setup is suitable for professional laser show applications requiring high precision and control.	1	nos	
b	Software for Laser operation	SITC of software with compact and powerful control system with dimensions of **19" 3HE** and a depth of **330 mm,** weighing approximately **8.5 kg.** It has an **IP 20** protection class and operates on a power supply of **110/230V at 50Hz.** The system is certified with **CE compliance** and can function reliably within an operating temperature range of **0 to 40°C,** with humidity levels from **0% to 80% (non-condensing).** The unit is equipped with multiple connectors including **4× DMX RDM XLR-5-pin** (with R&SS element), 2× XLR 3-pin for symmetric audio, 1× DVI-D out, 1× SMPTE XLR 3-pin, and 1× RS232. It also includes 3× USB 3.0 ports, an emergency stop, 8× digital inputs, 8× digital outputs, and 1× analog I/O. For storage, it features a 120 GB solid-state hard drive, making it suitable for demanding multimedia or lighting control environments.	1	nos	
c	DMX to USB	DMX Converter	1	nos	
d	Cable Laser Power	1.5mm 3 core Flat double PVC sheathed copper cable	1	mtr	
e	Cable Laser Data	Cat 6 cable with necessary connectors etc.	1	mtr	

S No.	Component	Description	Qty	Unit	Rate
f	SS Frame with 4 Nos uPVC / FRP Floats	SITC of modular floating structure made of 25x25mm SS304 Tig welded square pipe frame with SS304 fastners custom designed to install the above Laser with suitably sized uPVC floats and ends sealed with FRP covers to protect it from water ingress. The frames to be fixed in place with SS tie frames and / or suitable sized concrete anchors fixed with minimum 3 ton holding capacity nylon tie belts with galvanised metal hooks and locking mechanism.	1	nos	
g	Enclosure for Laser with forced air cooling and RDM Panel	SITC of Weather Proof Laser enclosure to mount the Lasers outdoors in powder coated aluminium body with automatic temperature and humidity control at preset levels suitable for a 5W Laser. Air intake and exits to be suitably sized and protected with filters to protect the laser from dust and insects, complete with IP55 control panel for 24hr monitoring of temperature and humidity with interconnecting cables for a	1	nos	
		Fountain Assembling and Anchoring System (for floating fountain)			
	Tie Frames to fix modular frames to each other.	SITC of SS 304 Tie Frames custom designed to fix individual sets of floating frames to each other, complete with SS U clamps, SS fastners and all required accessories and consumables.	1	nos	
	Floating Cable Trays	SITC of SS 304 Floating Cable trays 6m long with 4 uPVC floats with die moulded FRP endcaps of min 8mm thickness and separate raceway for low and high voltage cables.	1	nos	
	Anchoring Belts to tie the fountain frame to the anchors and hold the fountain in place.	SITC of Polyester belts of minimum 3 Ton holding capacity with Snap Hook and Buckle Cam made of GI of length depending upon the depth of the waterbody.	1	nos	
	Anchors to hold the fountain in place.	SITC of concrete anchor blocks cast at site of 450mm x 450mm x 300mm with steel hookto be placed on the lake floor at various locations to hold the fountain in place.	1	nos	
		Control Panels			
a	Starter Panel for Pumps x 4 No	SITC of custom made indoor type Motor Control Panels with MCB's, Contactors, Overload Relays, Single Phase Preventers, for automatic operation of pumps	1	Pumps	
b	DMX Control panel for lights x 1 No	SITC of custom made indoor type Light Control Panel with power supplies, DMX 512 transmitter cards, MCB's ctc for automatic operation of lights	1	Lights	
c	DMX Control panel for Pumps & Solonoids x 1 No	SITC of custom made indoor type Control Panel with DXM cards, Electronic relays, Power Supplies & MCB's for automatic switching of solenoid valves and pumps	1	Pumps / SV's	
d	Control panel for 2D Nozzles x 1 No	SITC of custom made indoor type Control Panel with Stepper Drives, DMX Relays and DMX Stepper Drivers for the automatic operation of 2D Nozzles	1	2D's	
e	Control panel for 3D Nozzles x 1 No	SITC of custom made indoor type Control Panel with Stepper Drives DMX Relays and DMX Stepper Drivers for the automatic operation of 3D Nozzles	1	3D's	
f	Main Distribution Panel	Custom made indoor type Panel with MCCB's and main bus bar for supply to the above no of panels.	1	Panels	
		Panel Interconnecting Cables & PVC Double Wall Conduit			
a	Wire 16mm Four Core double PVC sheathed copper cable	SITC of 16mm four core cable for connecting the Panels	1	mtr	
b	Wire 35mm Four Core double PVC sheathed copper cable	SITC of 35mm four core cable for connecting the Panels	1	mtr	
c	Wire 1 Pair (Communication Cable) (RS 485 , 1 Pair 24a4wg) - DMX	SITC of DMX interconnecting cable	1	mtr	
d	PVC Double Wall Conduit 4"	SITC of PVC Double Walled Conduit for interconnecting the cable trenches.	1	mtr	
		Sound System			
a	2-Way co-axial Loudspeaker : Supply, Installation, Testing, and Commissioning (SITC) of compact, highperformance All-Weather Low- Frequency Loudspeaker suitable for permanent outdoor applications. The speaker system shall feature a Kevlar-reinforced 15-inch (380 mm) low-frequency driver with a 3-inch (75 mm) voice coil, capable of delivering robust bass response and long-term reliability. The loudspeaker shall be rated for a minimum 500 Watts continuous power handling, with peak capacity up to 2000 Watts, and shall offer a frequency range of 45 Hz to 2.2 kHz (-10 dB) and sensitivity of at least 94 dB SPL (2.83V/1m).	1	nos	
b	2-Way co-axial Loudspeaker (Monitor Speaker) : Supply, Installation, Testing & Commissioning (SITC) of the All-Weather Compact 2-Way Coaxial Loudspeaker, the system must include a minimum 8- inch LF driver with a 50 mm voice coil and a 1-inch HF compression driver featuring a polymer diaphragm. It shall provide 120° x 120° dispersion, 80 Hz – 20 kHz frequency range, minimum 94 dB sensitivity, and minimum 250W power handling, with a 200W multi-tap transformer (70V/100V) offering multiple selectable power levels. The enclosure shall be minimum IP56-rated, with a corrosionresistant powder-coated steel grille. Mounting provisions include with CE- compliant barrier strip terminals for secure wiring.	1	nos	
c	Subwoofer : Supply, Installation, Testing & Commissioning (SITC) of the High Power Dual 15" Subwoofer, the system must include two 15-inch Differential Drive® woofers with neodymium magnets and dual voice coils for high power handling. It shall operate in parallel or discrete mode, offering a minimum 1600W continuous rating (minimum6400W peak) with a frequency range of 32 Hz – 1 kHz and minimum 100 dB sensitivity. The subwoofer shall provide a maximum SPL of 132 dB (138 dB peak) for powerful low- frequency output. The enclosure must be heavily secure mounting. The grille shall be powder-coated steel with acoustically transparent foam backing.	1	nos	
d	2-Way co-axial Loudspeaker : Supply, Installation, Testing, and Commissioning (SITC) of a compact, full-range, all-weather 2-way coaxial loudspeaker system suitable for high-performance outdoor and indoor applications. The loudspeaker shall consist of a 300 mm (12”) Kevlar-reinforced lowfrequency driver with a 75 mm (3”) voice coil and a 25 mm (1”) exit compression driver featuring a high-temperature polymer diaphragm and fluid-cooling, mounted coaxially.	1	nos	
e	Amplifier : Supply, Installation, Testing & Commissioning (SITC) of the Network Series Amplifier, the system must feature DriveCore™ Class D amplifier technology for high efficiency and reliability, offering four channels with 1250W power per channel. It shall support direct drive 70V/100V amplification, BLU link compatibility, and HiQnet Audio Architect™ network control. The onboard DSP includes LevelMAX™ limiters, parametric EQ, crossover, delay, and signal generator, ensuring optimized performance. Built with an advanced PFC universal power supply, it operates on 100-240VAC, 50/60Hz with TCP/IP network monitoring and control. The amplifier shall have a compact 2U form factor, forced air cooling,	1	nos	

S No.	Component	Description	Qty	Unit	Rate
f	DSP : Supply, Installation, Testing & Commissioning (SITC) of the Signal Processor, the system must provide 12 analog inputs with software-configurable gain up to +48dB, 8 analog outputs, and a 48- channel low-latency, fault-tolerant digital audio bus. It shall support HiQnet™ London Architect for full configuration, bi-directional locate functionality, and GPIO integration with 12 control inputs and 6 logic outputs. The processor must include a built-in DSP with a rich palette of processing and logic objects for audio control. Connectivity options include Ethernet RJ45 for control network and BLU link RJ45 for audio network, supporting distances up to 100m on Cat 5e or 40km with fiber converters. The unit operates on 100-240V AC, 50/60Hz, with a 1U rack-mountable chassis,		1	nos	
g	Cables : Speaker Cables, Audio Signal Cables, Ethernet Cables, BLU Link Cables, DMX Cables		1	nos	
	Fountain Control System and Programming				
	Fountain Show controller Hardware & Software for Musical Fountain control (Syncronorm Germany)	SITC of 4 universe DMX show Server with 120GB of storage, multiple timecode options and show scheduling option.	1	nos	
	Computer Core i5, with 4GB graphic card SSD 240 GB, 15 inch monitor	SITC of desktop computer for operating the show.	1	nos	
	Show Programming, 15min each show. (Copyright of music is in client scope)	Programming of the fountain nozzles, lights, lasers, etc to the music	1	nos	
	Consumables, Packing, Shipping etc				
	Consumables, Packing and Shipping.	Electrical tape, cable joint waterproofing rubber & packaging of equipment for road transport.	1	Lot	
	Control Room				
a	Cable : Supply, laying, testing, and commissioning of 3.5 Core x 300 sq.mm XLPE insulated, Aluminium conductor, PVC sheathed, steel strip armored, 1.1 kV grade power cable conforming to IS:7098 (Part 1) with latest amendments.		1	mtr	
b	MS Portable Cabin : MS Office Cabin: (10' x 8' x 8.5') (L x W x H) Pre-fab M.S. Portable Cabin Includes 1 Main door, 4 Led lights, 1 Fans, 1 window 3x3 Electrical Points, Switch Socket, Vinyl Flooring, 2 Ton split AC 2 Ton Split Ac Inverter		1	nos	
c	**UPS** : Supply, installation, testing and commissioning of 20 KVA UPS, true online UPS 3 Phase double conversion type with all safeties and protections and suitable capacity sealed maintenance-free 12 V batteries with 30 minutes backup time at 75% load, complete with powder- coated MS open battery rack and interconnecting cables of approved make		1	nos	
d	**Rack** : SITC of a standard 19U rack enclosure suitable for mounting network equipment, audio controllers, DMX splitters, multimedia servers, or other control systems used in musical water fountain projects. The rack shall be a free-standing floor-mounted type constructed from high- quality CRCA steel with a minimum thickness of 1.2 mm, powder-coated with a minimum of 50–60 microns for corrosion resistance and durability. The rack shall conform to international standards (EIA-310-D) with a usable internal depth of minimum 600 mm and width of 19 inches. It shall include front glass door with lock and key mechanism, rear perforated metal door for ventilation, removable side panels with lock system, and provision for cable entry from top and bottom. Adequate vertical and horizontal cable management, fan tray with minimum 2 cooling fans, 1U/2U power distribution unit (PDU) with minimum 6 sockets (5A/15A), grounding provisions, and caster wheels with locking arrangement shall be included. The rack must be fully assembled at site, securely installed, and compliant with all electrical safety standards. All accessories required for proper mounting and operation of equipment shall be included in the scope of supply		1	nos	
e	Trenching : Supply, excavation, cable laying, sand cushioning, protection, backfilling, and reinstatement work for laying of 3½-core, 300 sq.mm XLPE insulated, aluminium conductor, steel armoured, PVC sheathed cable (1.1 kV grade) in a prepared trench. The work shall include excavation of a trench in soil to a minimum depth of 900 mm and minimum width of 450 mm, or as per site conditions, including shoring, strutting, and dewatering if required. A 75 mm thick layer of clean, dry river sand shall be provided at the bottom of the trench to form a bedding cushion. The cable shall be laid centrally on this bedding, ensuring no sharp stones or edges come into contact with the cable. After laying, the cable shall be covered with a further 150 mm thick layer of sand, forming a protective envelope. A warning tape marked “Danger – Electric Cable” made of durable HDPE shall be laid at approximately 300 mm above the top of the cable. In non-traffic areas, one layer of protective bricks may be provided above the sand cover to prevent accidental mechanical damage. In road crossings or areas subjected to heavy loads, the cable shall be laid in GI or RCC hume pipes for additional protection, as per Engineer-in- Charge's instructions. The trench shall then be backfilled with excavated earth, free of large stones and debris, in layers not exceeding 150 mm, each layer well compacted. Cable route markers shall be installed at intervals of every 30 meters, at bends, joints, and at both ends of the cable route, as per IS standards. The contractor shall provide all labour, materials, tools, and testing equipment necessary to complete the work in a professional and safe manner, including dressing of the route, testing of insulation resistance, and obtaining approval from the Engineer-in-Charge at all stages of execution.		1	lot	
			Total excluding		
	Operation and Maintenance of the Fountain (Comprehensive)				
	Operation and maintenance charges for 1st year	**(Equipment under Warranty)**	12	months	
	Operation and maintenance charges for 2nd years		12	months	
	Operation and maintenance charges for 3rd years		12	months	

Signature of contractor