

Tender Inviting Authority: General Manager(Civil)/HoD, CCL Ranchi

Name of the Work / Contract No: Survey, Planning, Designing, Drawing and Construction of 5 No.s Sewage Treatment Plant (STP) of different capacity based on Sequential Batch Reactor (SBR) Technology and Sewerage system pipeline network from inside individual house hold/ other buildings in the Colony to STP including all civil, mechanical and Electrical work with boundary wall around the plant including Operation and Maintenance for 04 (four) years at Barka Sayal Area on TURN-KEY basis (e-Tender notice no. 10 of 2022-23).

Category of Services (To Be Selected by Department)	Category of Bidder (To Be Selected by Bidder)	To Be Entered by Department				
Works Contract	Bidder's Status (Mandatory)	Rate of GST (in %)	Total GST(in Rs.)	GST to be Paid By Bidder (in Rs.)	GST to be Paid By CIL/Subsidiary (in Rs.)	
Name of the Bidder/ Bidding Firm / Company :	Select	18	0.00	0.00	0.00	

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Estimated Rate in Rs. P	BASIC RATE In Figures To be entered by the Bidder in Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	6	7	8
1	<p>Part A Urimari Officers Colony Sewage Network: Survey, Designing, laying/ construction of sewage network for carrying sewage/ domestic effluent from the URIMARI OFFICER'S COLONY for STP on Turn-key basis. The scope of work includes providing , laying and joining RCC pipes class NP 2 of required diameters, construction of adequate shape, size and number of manholes, chambers inspection chambers, intermittent pumping stations if needed in RCC/ Brickwork, saddle supports, PCC bedding, wherever required including all other constructions, items and accessories for smooth carriage of sewage for STP, The item includes necessary excavations in all kinds of soil/rock, proper shoring and shuttering, refilling with sand/earth, watering, interconnecting the sewer line with manholes and inspection chambers, hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials . These items also include cutting and reinstatement of roads, pavements and drains etc. (Bituminous/Cement Concrete/RCC) and other structures falling in line if any, in the line of sewage network. etc all complete job as per detailed specifications and as directed by EIC. (Approximate length of sewer line 1500 meter)</p>						
1.01	<p>Survey, Planning, Design and Drawing Ground Survey, Ground levelling, Bridges crossing, culvert crossing, road crossing, planning Routing, peak factors, Network Design Calculations, Networking Drawing, no of manholes, Intermittent pumping station if needed, calculations and its size, piping design Levels, L sections of networking etc. and submission of final drawings and detail calculation of raw sewage pipeline network work.</p>	1	LS			0.00	INR Zero Only

1.02	Civil Works: i. Construction of sewage pipeline network of 1500 meter length (approx.) for carrying sewage from all waste lines inside individual dwelling units including non-residential buildings. The pipe should be RCC NP-2 of suitable diameter including construction of suitable size and number of manhole, chambers, inspection chambers, saddle support in Brickwork/RCC, PCC bedding for pipeline, excavation and refilling of trenches, repair of roads of all types, all connections, testing valves, gates etc. all complete.	1	LS			0.00	INR Zero Only
1.03	Civil Works: ii. Construction of Raw sewage sump including intermediate pumping station if required as per design to match with the invert level of incoming sewage pipeline of clear volumetric capacity for pumping.	1	LS			0.00	INR Zero Only
1.04	Mechanical Works: Supply, installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document. (i) Manual Coarse Screen (ii) Raw Sewage Lifting pump for intermediate pumping station/ Raw Sewage sump to Equalization tank of suitable discharge and head - 3 Nos. (iii) Pump lifting arrangement - 1 lot (iv) Piping, Valves and fittings as per design and requirement - 1 lot	1	LS			0.00	INR Zero Only
1.05	Electrical/ Instrumentation Equipment's: Supply, installation, Testing Commissioning and Trial run of MCC Panel Components attached with STP Panel and cabling as per specifications given in the tender document -1 set	1	LS			0.00	INR Zero Only
2	Part A Urimari Officers Colony Sewage Treatment plant:(0.10 MLD Capacity) The scope of work includes planning, Design, Construction, supply & installation of plants and machineries including trial run & commissioning.						
2.01	Preparation of process Design, Hydraulic design and construction Drawing and Submission For approval: - 1) Process engineering a. Preparation of Process calculation b. Preparation of Mass Balance diagram PFD. c. Preparation of P & IDs, Equipment sizing, Schematic Drawings. 2) Mechanical engineering. a. Preparation of layout, Civil GA & RCC Drawing for ETP process tanks, b. Equipment foundation Drawing, Equipment layout for all mechanical equipment like Air distribution grids. c. Preparation of datasheets for all bought out items like pumps, blowers, mixers & isolation gates. 3) Piping Engineering. a. Piping layout including valves etc. plans & sections b. Interconnection piping isometrics c. Piping Support layout	1	LS			0.00	INR Zero Only

2.02	<p>Construction Work: The construction work in the sewage treatment plant (S.T.P) Consists of:</p> <ul style="list-style-type: none"> •Bar screen chamber •Oil & Grease Chamber •Equalization tank, Aeration tank •SBR tank •Dosing tank, • Chlorination contact tank •Pressure sand filter •Activated carbon filter •Sludge Sump <p>Control Panel room including office room field Laboratory with basic design equipment's/ facilities store.</p> <p>Civil Works: All as per design and detailed specifications given in the tender document such as Construction of plant Room Screen Chamber, Grit Chamber, Inlet cum equalization tank , Aeration Tank (SBR), Disinfection Tank, Sludge sump, Control panel Room including office Room, Field Laboratory with basic testing equipment's/ facilities store, misc., civil works-Road, pathways & Foundation, Construction of shed for the STP equipment etc. all complete as per direction of EIC</p>	1	LS			0.00	INR Zero Only
2.03	<p>Mechanical Works:</p> <p>Supply , installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document such as manual Fine Screen Mechanical Fine Screen, sewage transfer pump for Equalization Tank to SBR Tank, Decanter mechanism with PLC controlled Auto operation, Twin lobe Air blower, Aeration grid with diffuser for SBR tank, sludge sump & equalization tank made of RCC, RAS/SAS Non clog pumps effluent application type, sludge recycle cum sludge transfer pump, horizontal, centrifugal, Monoblock self-priming type, Filter feed pump, Non clog effluent application, horizontal, centrifugal , Pressure sand filter(PSF) made of MS epoxy coated Activated carbon filter (ACF) made of MS epoxy coated piping, valves and fittings and transit pump as per design and requirement , Screw press/ Centrifuge, Sludge feed pump, Misc., mechanical works etc. all complete as per the direction of EIC.</p>	1	LS			0.00	INR Zero Only
2.04	<p>Electrical/ instrumentation Equipment's:</p> <p>Supply, installation, testing, Commissioning and Trial run of MCC panel with all accessories for Auto ON/Off control of entire STP as per specifications given in the tender document, PLC software (SCADA) to control the entire plant including all the pumps and blowers, all the limit switches, probes and control cabling are included in the scope of work. the automation system shall be inclusive of HMI, process and operator software with dynamic flow chart displayed on monitor compatible to upto date PC, Electrical cables form MCC panel to all electric motor and instruments, Earthing etc. Auto control valves for the SBR etc. all complete as per the direction of EIC.</p>	1	LS			0.00	INR Zero Only
3	<p>Part A Urimari Officers Colony</p> <p>Operation and maintenance of entire STP plant including sewage pipeline network for smooth functioning including supplying all consumable for treatment and testing, spare parts, repair and maintenance of civil/mechanical/electrical elements, training of departmental staff of CCL including providing 3 copies of As built drawing etc. all complete.</p>	4	year			0.00	INR Zero Only
4	<p>Part A Urimari Officers Colony</p> <p>Construction of required surrounding Boundary wall of Masonry work with RCC pillars and beams, 2.10 mt. height above ground level etc. all complete as per direction of EIC</p>	1	LS			0.00	INR Zero Only

5	Part B Check Post Colony						
	Sewage Network: Survey, Designing, laying/ construction of sewage network for carrying sewage/ domestic effluent from the Checkpost Colony for STP on Turn-key basis. The scope of work includes providing , laying and joining RCC pipes class NP-2 of required diameters, construction of adequate shape, size and number of manholes, chambers inspection chambers, intermittent pumping stations if needed in RCC/ Brickwork, saddle supports, PCC bedding, wherever required including all other constructions, items and accessories for smooth carriage of sewage for STP, The item includes necessary excavations in all kinds of soil/rock, proper sharing and shuttering, refilling with sand/earth, watering, interconnecting the sewer line with manholes and inspection chambers, hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials . These items also include cutting and reinstatement of roads, pavements and drains etc. (Bituminous/Cement Concrete/RCC) and other structures falling in line if any, in the line of sewage network. etc all complete job as per detailed specifications and as directed by EIC. (Approximate length of sewer line 2000 meter)						
5.01	Survey, Planning, Design and Drawing Ground Survey, Ground levelling, Bridges crossing, culvert crossing, road crossing, planning Routing, peak factors, Network Design Calculations, Networking Drawing, no of manholes, Intermittent pumping station if needed, calculations and its size, piping design Levels, L sections of networking etc. and submission of final drawings and detail calculation of raw sewage pipeline network work.	1	LS			0.00	INR Zero Only
5.02	Civil Works: i. Construction of sewage pipeline network of 2000 meter length (approx.) for carrying sewage from all waste lines inside individual dwelling units including non-residential buildings. The pipe should be RCC NP-2 of suitable diameter including construction of suitable size and number of manhole, chambers, inspection chambers, saddle support in Brickwork/ RCC, PCC bedding for pipeline, excavation and refilling of trenches, repair of roads of all types, all connections, testing valves, gates etc. all complete.	1	LS			0.00	INR Zero Only
5.03	Civil Works: ii. Construction of Raw sewage sump including intermediate pumping station if required as per design to match with the invert level of incoming sewage pipeline of clear volumetric capacity for pumping.	1	LS			0.00	INR Zero Only
5.04	Mechanical Works: Supply, installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document. (i)Manual Coarse Screen (ii) Raw Sewage Lifting pump for intermediate pumping station/ Raw Sewage sump to Equalization tank of suitable discharge and head - 3 Nos. (iii)Pump lifting arrangement - 1 lot (iv) Piping, Valves and fittings as per design and requirement - 1lot	1	LS			0.00	INR Zero Only
5.05	Electrical/ Instrumentation Equipment's: Supply, installation, Testing Commissioning and Trial run of MCC Panel Components attached with STP Panel and cabling as per specifications given in the tender document -1 set	1	LS			0.00	INR Zero Only
6	Part B Check Post Colony Sewage Treatment plant:(0.30 MLD Capacity) The scope of work includes planning, Design, Construction, supply & installation of plants and machineries including trail run & commissioning.						

6.01	<p>Preparation of process Design, Hydraulic design and construction Drawing and Submission For approval: -</p> <p>1) Process engineering</p> <p>a. Preparation of Process calculation</p> <p>b. Preparation of Mass Ballance diagram PFD.</p> <p>c. Preparation of P & IDs, Equipment sizing, Schematic Drawings .</p> <p>2) Mechanical engineering.</p> <p>a. Preparation of layout, Civil GA & RCC Drawing for ETP process tanks,</p> <p>b. Equipment foundation Drawing, Equipment layout for all mechanical equipment like Air distribution grids.</p> <p>c. Preparation of datasheets for all bought out items like pumps, blowers, mixers & isolation gates.</p> <p>3) Piping Engineering.</p> <p>a. Piping layout including valves etc. plans & sections</p> <p>b. Interconnection piping isometrics</p> <p>c. Piping Support layout</p>	1	LS			0.00	INR Zero Only
6.02	<p>Construction Work: The construction work in the sewage treatment plant (S.T.P) Consists of:</p> <ul style="list-style-type: none"> • Bar screen chamber • Oil & Grease Chamber • Equalization tank, Aeration tank • SBR tank • Dosing tank, • Chlorination contact tank • Pressure sand filter • Activated carbon filter • Sludge Sump <p>Control Panel room including office room field Laboratory with basic design equipment's/ facilities store.</p> <p>Civil Works:</p> <p>All as per design and detailed specifications given in the tender document such as Construction of plant Room Screen Chamber, Grit Chamber, Inlet cum equalization tank , Aeration Tank (SBR), Disinfection Tank, Sludge sump, Control panel Room including office Room, Filled Laboratory with basic testing equipment's/ facilities store, misc., civil works- Road, pathways & Foundation, Construction of shed for the STP equipment etc. all complete as per direction of EIC</p>	1	LS			0.00	INR Zero Only
6.03	<p>Mechanical Works:</p> <p>Supply , installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document such as manual Fine Screen Mechanical Fine Screen, sewage transfer pump for Equalization Tank to SBR Tank, Decanter mechanism with PLC controlled auto operation, Twin lobe Air blower, Aeration grid with diffuser for SBR tank, sludge sump & equalization tank made of RCC, RAS/SAS Non clog pumps effluent application type, sludge recycle cum sludge transfer pump, horizontal, centrifugal, Monoblock self-printing type, Filter feed pump, Non clog effluent application, horizontal, centrifugal , Pressure sand filter (PSF) made of MS epoxy coated Activated carbon filter (ACF) made of MS epoxy coated piping, valves and fittings and transit pump as per design and requirement , Screw press/ Centrifuge, Sludge feed pump, Misc., mechanical works etc. all complete as per the direction of EIC.</p>	1	LS			0.00	INR Zero Only
6.04	<p>Electrical/ instrumentation Equipment's:</p> <p>Supply, installation, testing, Commissioning and Trial run of MCC panel with all accessories for Auto ON/Off control of entire STP as per specifications given in the tender document, PLC software (SCADA) to control the entire plant including all the pumps and blowers, all the limit switches, probes and control cabling are included in the scope of work. the automation system shall be inclusive of HMI, process and operator software with dynamic flow chart displayed on monitor compatible to upto date PC, Electrical cables form MCC panel to all electric motor and instruments, Earthing etc. Auto control valves for the SBR etc. all complete as per the direction of EIC.</p>	1	LS			0.00	INR Zero Only

7	Part B Check Post Colony Operation and maintenance of entire STP plant including sewage pipeline network for smooth functioning including supplying all consumable for treatment and testing, spare parts, repair and maintenance of civil/mechanical/electrical elements, training of departmental staff of CCL including providing 3 copies of As built drawing etc. all complete.	4	year			0.00	INR Zero Only
8	Part B Check Post Colony Construction of required surrounding Boundary wall of Masonry work with RCC pillars and beams, 2.10 mt. height above ground level etc. all complete as per direction of EIC	1	LS			0.00	INR Zero Only
9	Part C Baghraiya and DAV Colony Sewage Network: Survey, Designing, laying/ construction of sewage network for carrying sewage/ domestic effluent from the Baghraiya and DAV Colony for STP on Turn-key basis. The scope of work includes providing , laying and joining RCC pipes class NP-2 of required diameters, construction of adequate shape, size and number of manholes, chambers inspection chambers, intermittent pumping stations if needed in RCC/ Brickwork, saddle supports, PCC bedding, wherever required including all other constructions, items and accessories for smooth carriage of sewage for STP, The item includes necessary excavations in all kinds of soil/rock, proper sharing and shuttering, refilling with sand/earth, watering, interconnecting the sewer line with manholes and inspection chambers, hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials . These items also include cutting and reinstatement of roads, pavements and drains etc. (Bituminous/Cement Concrete/RCC) and other structures falling in line if any, in the line of sewage network. etc all complete job as per detailed specifications and as directed by EIC. (Approximate length of sewer line 1300 meter)						
9.01	Survey, Planning, Design and Drawing Ground Survey, Ground levelling, Bridges crossing, culvert crossing, road crossing, planning Routing, peak factors, Network Design Calculations, Networking Drawing, no of manholes, Intermittent pumping station if needed, calculations and its size, piping design Levels, L sections of networking etc. and submission of final drawings and detail calculation of raw sewage pipeline network work.	1	LS			0.00	INR Zero Only
9.02	Civil Works: i. Construction of sewage pipeline network of 1300 meter length (approx.) for carrying sewage from all waste lines inside individual dwelling units including non-residential buildings. The pipe should be RCC NP-2 of suitable diameter including construction of suitable size and number of manhole, chambers, inspection chambers, saddle support in Brickwork/ RCC, PCC bedding for pipeline, excavation and refilling of trenches, repair of roads of all types, all connections, testing valves, gates etc. all complete.	1	LS			0.00	INR Zero Only
9.03	Civil Works: ii. Construction of Raw sewage sump including intermediate pumping station if required as per design to match with the invert level of incoming sewage pipeline of clear volumetric capacity for pumping.	1	LS			0.00	INR Zero Only
9.04	Mechanical Works: Supply, installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document. (i)Manual Coarse Screen (ii) Raw Sewage Lifting pump for intermediate pumping station/ Raw Sewage sump to Equalization tank of suitable discharge and head - 3 Nos. (iii)Pump lifting arrangement - 1 lot (iv) Piping, Valves and fittings as per design and requirement - 1lot	1	LS			0.00	INR Zero Only

9.05	Electrical/ Instrumentation Equipment's: Supply, installation, Testing Commissioning and Trial run of MCC Panel Components attached with STP Panel and cabling as per specifications given in the tender document -1 set	1	LS			0.00	INR Zero Only
10	Part C Baghraiya and DAV Colony Sewage Treatment plant:(0.10 MLD Capacity) The scope of work includes planning, Design, Construction, supply & installation of plants and machineries including trail run & commissioning.						
10.01	Preparation of process Design, Hydraulic design and construction Drawing and Submission For approval: - 1) Process engineering a. Preparation of Process calculation b. Preparation of Mass Ballance diagram PFD. c. Preparation of P & IDs, Equipment sizing, Schematic Drawings . 2) Mechanical engineering. a. Preparation of layout, Civil GA & RCC Drawing for ETP process tanks, b. Equipment foundation Drawing, Equipment layout for all mechanical equipment like Air distribution grids. c. Preparation of datasheets for all bought out items like pumps, blowers, mixers & isolation gates. 3) Piping Engineering. a. Piping layout including valves etc. plans & sections b. Interconnection piping isometrics c. Piping Support layout	1	LS			0.00	INR Zero Only
10.02	Construction Work: The construction work in the sewage treatment plant (S.T.P) Consists of: •Bar screen chamber •Oil & Grease Chamber •Equalization tank, Aeration tank •SBR tank •Dosing tank, •Chlorination contact tank •Pressure sand filter •Activated carbon filter •Sludge Sump Control Panel room including office room field Laboratory with basic design equipment's/ facilities store. Civil Works: All as per design and detailed specifications given in the tender document such as Construction of plant Room Screen Chamber, Grit Chamber, Inlet cum equalization tank , Aeration Tank (SBR), Disinfection Tank, Sludge sump, Control panel Room including office Room, Field Laboratory with basic testing equipment's/ facilities store, misc., civil works-Road, pathways & Foundation, Construction of shed for the STP equipment etc. all complete as per direction of EIC	1	LS			0.00	INR Zero Only
10.03	Mechanical Works: Supply , installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document such as manual Fine Screen Mechanical Fine Screen, sewage transfer pump for Equalization Tank to SBR Tank, Decanter mechanism with PLC controlled Auto operation, Twin lobe Air blower, Aeration grid with diffuser for SBR tank, sludge sump & equalization tank made of RCC, RAS/SAS Non clog pumps effluent application type, sludge recycle cum sludge transfer pump, horizontal, centrifugal, Monoblock self-priming type, Filter feed pump, Non clog effluent application, horizontal, centrifugal , Pressure sand filter(PSF) made of MS epoxy coated Activated carbon filter (ACF) made of MS epoxy coated piping, valves and fittings and transit pump as per design and requirement , Screw press/ Centrifuge, Sludge feed pump, Misc., mechanical works etc. all complete as per the direction of EIC.	1	LS			0.00	INR Zero Only

10.04	Electrical/ instrumentation Equipment's: Supply, installation, testing, Commissioning and Trial run of MCC panel with all accessories for Auto ON/Off control of entire STP as per specifications given in the tender document, PLC software (SCADA) to control the entire plant including all the pumps and blowers, all the limit switches, probes and control cabling are included in the scope of work. the automation system shall be inclusive of HMI, process and operator software with dynamic flow chart displayed on monitor compatible to upto date PC, Electrical cables form MCC panel to all electric motor and instruments, Earthing etc. Auto control valves for the SBR etc. all complete as per the direction of EIC.	1	LS			0.00	INR Zero Only
11	Part C Baghraiya and DAV Colony Operation and maintenance of entire STP plant including sewage pipeline network for smooth functioning including supplying all consumable for treatment and testing, spare parts, repair and maintenance of civil/mechanical/electrical elements, training of departmental staff of CCL including providing 3 copies of As built drawing etc. all complete.	4	year			0.00	INR Zero Only
12	Part C Baghraiya and DAV Colony Construction of required surrounding Boundary wall of Masonry work with RCC pillars and beams, 2.10 mt. height above ground level etc. all complete as per direction of EIC	1	LS			0.00	INR Zero Only
13	Part D Jarjara Colony Sewage Network: Survey, Designing, laying/ construction of sewage network for carrying sewage/ domestic effluent from the Jarjara Colony for STP on Turn-key basis. The scope of work includes providing , laying and joining RCC pipes class NP-2 of required diameters, construction of adequate shape, size and number of manholes, chambers inspection chambers, intermittent pumping stations if needed in RCC/ Brickwork, saddle supports, PCC bedding, wherever required including all other constructions, items and accessories for smooth carriage of sewage for STP, The item includes necessary excavations in all kinds of soil/rock, proper shoring and shuttering, refilling with sand/earth, watering, interconnecting the sewer line with manholes and inspection chambers, hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials . These items also include cutting and reinstatement of roads, pavements and drains etc. (Bituminous/Cement Concrete/RCC) and other structures falling in line if any, in the line of sewage network. etc all complete job as per detailed specifications and as directed by EIC. (Approximate length of sewer line 1500 meter)						
13.01	Survey, Planning, Design and Drawing Ground Survey, Ground levelling, Bridges crossing, culvert crossing, road crossing, planning Routing, peak factors, Network Design Calculations, Networking Drawing, no of manholes, Intermittent pumping station if needed, calculations and its size, piping design Levels, L sections of networking etc. and submission of final drawings and detail calculation of raw sewage pipeline network work.	1	LS			0.00	INR Zero Only
13.02	Civil Works: i. Construction of sewage pipeline network of 1500 meter length (approx.) for carrying sewage from all waste lines inside individual dwelling units including non-residential buildings. The pipe should be RCC NP-2 of suitable diameter including construction of suitable size and number of manhole, chambers, inspection chambers, saddle support in Brickwork/ RCC, PCC bedding for pipeline, excavation and refilling of trenches, repair of roads of all types, all connections, testing valves, gates etc. all complete.	1	LS			0.00	INR Zero Only

13.03	<p>Civil Works: ii. Construction of Raw sewage sump including intermediate pumping station if required as per design to match with the invert level of incoming sewage pipeline of clear volumetric capacity for pumping.</p>	1	LS			0.00	INR Zero Only
13.04	<p>Mechanical Works: Supply, installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document. (i)Manual Coarse Screen (ii) Raw Sewage Lifting pump for intermediate pumping station/ Raw Sewage sump to Equalization tank of suitable discharge and head - 3 Nos. (iii)Pump lifting arrangement - 1 lot (iv) Piping, Valves and fittings as per design and requirement - 1lot</p>	1	LS			0.00	INR Zero Only
13.05	<p>Electrical/ Instrumentation Equipment's: Supply, installation, Testing Commissioning and Trial run of MCC Panel Components attached with STP Panel and cabling as per specifications given in the tender document -1 set</p>	1	LS			0.00	INR Zero Only
14	<p>Part D Jarjara Colony Sewage Treatment plant:(0.20 MLD Capacity) The scope of work includes planning, Design, Construction, supply & installation of plants and machineries including trial run & commissioning.</p>						
14.01	<p>Preparation of process Design, Hydraulic design and construction Drawing and Submission For approval: - 1) Process engineering a.Preparation of Process calculation b.Preparation of Mass Ballance diagram PFD. c. Preparation of P & IDs, Equipment sizing, Schematic Drawings . 2) Mechanical engineering. a. Preparation of layout, Civil GA & RCC Drawing for ETP process tanks, b. Equipment foundation Drawing, Equipment layout for all mechanical equipment like Air distribution grids. c. Preparation of datasheets for all bought out items like pumps, blowers, mixers & isolation gates. 3) Piping Engineering. a.Piping layout including valves etc. plans & sections b.Interconnection piping isometrics c.Piping Support layout</p>	1	LS			0.00	INR Zero Only
14.02	<p>Construction Work: The construction work in the sewage treatment plant (S.T.P) Consists of: •Bar screen chamber •Oil & Grease Chamber •Equalization tank, Aeration tank •SBR tank •Dosing tank, • Chlorination contact tank •Pressure sand filter •Activated carbon filter •Sludge Sump Control Panel room including office room field Laboratory with basic design equipment's/ facilities store. Civil Works: All as per design and detailed specifications given in the tender document such as Construction of plant Room Screen Chamber, Grit Chamber, Inlet cum equalization tank , Aeration Tank (SBR), Disinfection Tank, Sludge sump, Control panel Room including office Room, Field Laboratory with basic testing equipment's/ facilities store, misc., civil works-Road, pathways & Foundation, Construction of shed for the STP equipment etc. all complete as per direction of EIC</p>	1	LS			0.00	INR Zero Only

14.03	Mechanical Works: Supply , installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document such as manual Fine Screen Mechanical Fine Screen, sewage transfer pump for Equalization Tank to SBR Tank, Decanter mechanism with PLC controlled Auto operation, Twin lobe Air blower, Aeration grid with diffuser for SBR tank, sludge sump & equalization tank made of RCC, RAS/SAS Non clog pumps effluent application type, sludge recycle cum sludge transfer pump, horizontal, centrifugal, Monoblock self-priming type, Filter feed pump, Non clog effluent application, horizontal, centrifugal , Pressure sand filter(PSF) made of MS epoxy coated Activated carbon filter (ACF) made of MS epoxy coated piping, valves and fittings and transit pump as per design and requirement , Screw press/ Centrifuge, Sludge feed pump, Misc., mechanical works etc. all complete as per the direction of EIC.	1	LS			0.00	INR Zero Only
14.04	Electrical/ instrumentation Equipment's: Supply, installation, testing, Commissioning and Trial run of MCC panel with all accessories for Auto ON/Off control of entire STP as per specifications given in the tender document, PLC software (SCADA) to control the entire plant including all the pumps and blowers, all the limit switches, probes and control cabling are included in the scope of work. the automation system shall be inclusive of HMI, process and operator software with dynamic flow chart displayed on monitor compatible to upto date PC, Electrical cables form MCC panel to all electric motor and instruments, Earthing etc. Auto control valves for the SBR etc. all complete as per the direction of EIC.	1	LS			0.00	INR Zero Only
15	Part D Jarjara Colony Operation and maintenance of entire STP plant including sewage pipeline network for smooth functioning including supplying all consumable for treatment and testing, spare parts, repair and maintenance of civil/mechanical/electrical elements, training of departmental staff of CCL including providing 3 copies of As built drawing etc. all complete.	4	year			0.00	INR Zero Only
16	Part D Jarjara Colony Construction of required surrounding Boundary wall of Masonry work with RCC pillars and beams, 2.10 mt. height above ground level etc. all complete as per direction of EIC	1	LS			0.00	INR Zero Only
17	Part E Thana Colony Sewage Network: Survey, Designing, laying/ construction of sewage network for carrying sewage/ domestic effluent from the Thana COLONY for STP on Turn-key basis. The scope of work includes providing , laying and joining RCC pipes class NP-2 of required diameters, construction of adequate shape, size and number of manholes, chambers inspection chambers, intermittent pumping stations if needed in RCC/ Brickwork, saddle supports, PCC bedding, wherever required including all other constructions, items and accessories for smooth carriage of sewage for STP, The item includes necessary excavations in all kinds of soil/rock, proper shoring and shuttering, refilling with sand/earth, watering, interconnecting the sewer line with manholes and inspection chambers, hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials . These items also include cutting and reinstatement of roads, pavements and drains etc. (Bituminous/Cement Concrete/RCC) and other structures falling in line if any, in the line of sewage network. etc all complete job as per detailed specifications and as directed by EIC (Approximate length of sewer line 800 meter)						

17.01	Survey, Planning, Design and Drawing Ground Survey, Ground levelling, Bridges crossing, culvert crossing, road crossing, planning Routing, peak factors, Network Design Calculations, Networking Drawing, no of manholes, Intermittent pumping station if needed, calculations and its size, piping design Levels, L sections of networking etc. and submission of final drawings and detail calculation of raw sewage pipeline network work.	1	LS			0.00	INR Zero Only
17.02	Civil Works: i. Construction of sewage pipeline network of 800 meter length (approx.) for carrying sewage from all waste lines inside individual dwelling units including non-residential buildings. The pipe should be RCC NP-2 of suitable diameter including construction of suitable size and number of manhole, chambers, inspection chambers, saddle support in Brickwork/ RCC, PCC bedding for pipeline, excavation and refilling of trenches, repair of roads of all types, all connections, testing valves, gates etc. all complete.	1	LS			0.00	INR Zero Only
17.03	Civil Works: ii. Construction of Raw sewage sump including intermediate pumping station if required as per design to match with the invert level of incoming sewage pipeline of clear volumetric capacity for pumping.	1	LS			0.00	INR Zero Only
17.04	Mechanical Works: Supply, installation, Testing, Commissioning and Trial run of following mechanical equipment's as per specifications given in the tender document. (i) Manual Coarse Screen (ii) Raw Sewage Lifting pump for intermediate pumping station/ Raw Sewage sump to Equalization tank of suitable discharge and head - 3 Nos. (iii) Pump lifting arrangement - 1 lot (iv) Piping, Valves and fittings as per design and requirement - 1 lot	1	LS			0.00	INR Zero Only
17.05	Electrical/ Instrumentation Equipment's: Supply, installation, Testing Commissioning and Trial run of MCC Panel Components attached with STP Panel and cabling as per specifications given in the tender document - 1 set	1	LS			0.00	INR Zero Only
18	Part E Thana Colony Sewage Treatment plant:(0.10 MLD Capacity) The scope of work includes planning, Design, Construction, supply & installation of plants and machineries including trail run & commissioning.						
18.01	Preparation of process Design, Hydraulic design and construction Drawing and Submission For approval: - 1) Process engineering a. Preparation of Process calculation b. Preparation of Mass Ballance diagram PFD. c. Preparation of P & IDs, Equipment sizing, Schematic Drawings . 2) Mechanical engineering. a. Preparation of layout, Civil GA & RCC Drawing for ETP process tanks, b. Equipment foundation Drawing, Equipment layout for all mechanical equipment like Air distribution grids. c. Preparation of datasheets for all bought out items like pumps, blowers, mixers & isolation gates. 3) Piping Engineering. a. Piping layout including valves etc. plans & sections b. Interconnection piping isometrics c. Piping Support layout	1	LS			0.00	INR Zero Only

Quoted Rate in Words

INR Zero Only