

Contract CE-20

Design, Detail Engineering, Supply, Installation, Testing and Commissioning of Retro-fitment of Air Conditioning System at Rajiv Chowk Underground Metro Station and Building of Shastri Park Depot.

Reply to Pre-bid Queries

S. No	Tender Reference	Item	Query	DMRC Reply
1	General	-	We request you to please remove the civil works from our scope.	Please follow tender conditions.
2	General	-	We request you to please accept 15% interest free advance payment.	Please follow tender conditions.
3 (a)	General	-	We request you to provide us the electricity and water at one point at site on chargeable basis. Please note that the electricity and water for testing & commissioning shall be in DMRC Scope	Electricity and water shall be provided free of cost by DMRC for the execution of work. In order to have accountability of energy consumed the contractor shall install meter and circuit breaker for the services used.
3(b)	General	-	We request you to provide us the electricity and water at one point at site free of cost for installation.. Please also note that the electricity and water for testing & commissioning shall be in DMRC Scope	
4	GCC	Page 24 of 66	Clause 1.21, Space for site office/store shall be provided by DMRC.	DMRC shall provide space for office and space for storage of materials near Shastri Park Depot. Contractor shall build office and build store to meet project requirements.
5	GCC	Page 17 of 66	Clause 4.4, We request you to delete this clause itself as you will not give us compensation in case our works is delayed or affected due to other contractor's work. If compensation is not given to us, we also shall not be liable to pay any compensation to other designated contractors in case our work is delayed due to reasons attributable to other contractors.	Please follow tender conditions

6	GCC	Page 32 of 66	Clause 6.4, We request you to delete this requirement.	Please follow tender conditions
7	BOQ General	Sno d	We shall quote as per the Pump head given in BOQ. If there is any increase in motor rating or pumps model on account of increase in pump head, the same shall be payable extra.	Please follow tender conditions
8 (a)	Chiller	-	<p>1. Request you to please accept +-3% variation in capacity at tender design conditions, as exact 600 TR is not available. The chiller operates at Off Design condition for 99% of time and will deliver 600 TR.</p> <p>2. COP shall be as per ASHRAE latest guidelines, ASHRAE 2013 applicable from 1st January 2015 onwards i.e IKW/TR < 0.585 at AHRI conditions.</p> <p>3. Request you to please accept 3 pass evaporator. We confirm that water velocity will be less than 3m/s with 3 pass.</p> <p>4. Please confirm the sound levels required at 75%, 50% and 25% should be less than 100% load. ASHRAE guidelines AHRI 370- 575 measures sound levels at 100%, 75%, 50% and 25% load.</p> <p>5. Please confirm if chiller required shall be surge free.</p> <p>6. Please confirm if additional ducted and air-conditioned room will be provided in case of floor standing VFD.</p>	<p>1. Minimum 600TR at tender design condition is required</p> <p>2. COP - Please follow tender conditions</p> <p>3. Please follow tender conditions</p> <p>4. Max sound shall be 90dBA at 1 m from the chiller measured as per ASHRAE guidelines</p> <p>5. Please follow tender conditions</p> <p>6. No additional room shall be provided by DMRC.</p> <p>7. Minimum condenser water to be based on manufacturer's recommendation, contractor to ensure the same during design also considering weather data of Delhi.</p>

			7. Please confirm the minimum condenser water temperature available for chiller operation.	
8 (b)	Chiller	-	Deviation by York - We request you to please accept +/- 5% variation in capacity at tender design conditions, as exact 600 TR is not available. The chiller operates at Off Design condition for 99% of time and will deliver 600 TR. This was accepted in previous DMRC projects also.	Minimum 600TR at tender design condition is required
9	BoQ Item No-3	AHU	BOQ asked for UVC Emitter but in Specification Ref: DMRC/CE-20/Vol.3/Technical Specifications Page 24 of 242, Clause A01.3.15, It is mentioned that UVC Emitter Not Used. So please clarify whether UVC Emitter required or not. If required please give us specifications of UVC Emitter.	Space for UVC emitter to be provided in the AHUs. UVC emitter is not required to be installed by the contractor.
10	Scope of Work	Expansion Tank	Ref: DMRC/CE-20/Vol.3/Scope of Work (Part-I) Page 3 of 5, Serial No.3 -9), Reinstallation of existing expansion tank asked but the such work for expansion tanks are not mentioned in BOQ, Pls clarify.	Please follow tender conditions
11	BOQ Item No-12	CPM	Please provide us the IO Summary for Chiller Plant Manager.	Please follow tender conditions. Indicative I/O summary already provided in technical specifications.
12	Scope of Work	Colling Tower Area	Ref: DMRC/CE-20/Vol.3/Scope of Work (Part-I) Page 3 of 5, Serial No.3 -3) CFD Simulation in Cooling Tower Area if required shall be paid extra as actual.	CFD simulation if needed to be done by contractor. Extra money shall not be paid as design is in contractor's scope.

13	Scope of Work	-	Ref: DMRC/CE-20/Vol.3/Scope of Work (Part-I) Page 4 of 5, Serial No.3 -22 & 23). All statutory approval from any authorities to be provided by DMRC.	Please follow tender conditions.
14		-	Request you to provide permission to visit site and access the work to be done.	Please follow tender conditions.
15		-	We request you to provide SLD and GA drawing of panel to be modified	Will be provided after award of work.
16			Escalation shall be provided if the tender gets delayed beyond the contractual completion period.	Prices shall remain fixed till taking over certificate for complete system is issued.
17			Any changes in taxes and duties or levy of new taxes & duties shall be paid extra.	Please follow tender conditions. SCC Clause 22(c)
18	Clause 20 of SCC Taking over certificate	<p>Taking Over Certificate</p> <p>Following is added in the last of Clause 9.1 of GCC</p> <p>If some part of work is not completed along with rest of the works in the contract and the Employer agreed for such splitting of work in writing, the Taking Over Certificate can be issued for that part of work which has been completed and accepted by the Employer. However such splitting of work for issue of taking Over Certificate is sole discretion of the Employer.</p>	We request you to consider the date of Taking over certificate from the date the system/equipment is bought in regular usage	Please follow tender conditions.
19	Clause 21 of SCC sbclause 10.0	Maintenance during Defects Liability Period Contractor shall establish an office for the purpose with communication facility so as to facilitate communication for reporting failures and liaison with maintenance staff manning the stations round the clock. The supervisor in-charge should be provided with mobile communication facility to ensure his	We understand that any consumables being used during period shall be provided free of charge to the contractor. Please clarify	Please follow tender conditions. It is in the scope of contractor.

20	Clause 23 of SCC 11.1.3 Price variation	Price Variation Prices quoted by the tenderer shall be fixed throughout the Tenderers performance of the contract and not subject to variation of any account.	We understand that the price shall remain fix till completion of works i.e 12 months from date of LOA.	Prices shall remain fixed till taking over certificate for complete system is issued.
21	Clause 24 of scc sub clause 11.2.1 Mobilatisation advance	Mobilisation Advance Mobilisation advance shall be paid in two equal instalments. The first instalment shall be paid when the Contract becomes effective and second i instalment shall be paid on production of effective and proper utilization of the first instalment.	May we request mobilisation advance of 10 % against the 5% being paid in two installments	Please follow tender conditions.
22	Clause 38 of SCC. Additional clause	Retention Money Retention money equal to 10 percent of the amount due to the Contractor from each on account payment will be retained, so as to maintain a reserve in the hands of the Employer equal to 5 percent of the Contract Price. The Retention money shall be held by the Employer without obligation to invest them or account for interest thereon or to place them in a designated account. No interest of whatsoever nature and type will be payable by the Employer in respect of Retention monies. Retention money shall become due to the Contractor on the date of issue of the Taking Over Certificate of works in respective sections/corridors.	May we request to not withhold retention amount on submission of BG of equivalent amount	Please follow tender conditions.
23	Clause 40 of SCC Additional clause Operation and maintenance	The Contractor shall provide Expert team for Maintenance till the end of DLP and assistance in operation for initial 6 months from system put in use. The deployment of these Experts and team shall be continuous. These Experts and team shall work under the administrative control of the Employer. These Experts and team shall also ensure that the Client's maintenance staff acquire necessary skills and follow	Please let us know Complete requirement and no. of experts required	Please follow tender conditions. Contractor to deploy manpower to meet all functional requirements of the system mutually agreed with DMRC after work completion.

		correct procedures and practices in the maintenance, overhaul and repair of various components for the system as well as for the maintenance of the related software (if any) after the DLP. The qualification and experience of the Experts to be deployed by the Contractor shall be as prescribed in the Employer's Requirements. Prior approval of the Employer shall be necessary before the Experts are deployed for maintenance and operation. The Contractor shall replace promptly, Contractor's experts who are not considered suitable by the Engineer		
24	Clause 41 of scc spares	Spares The Contractor shall supply spare parts as per the Employers requirement.	Request you to please provide list of spares. Also we understand that consumables during DLP period shall not be in scope of supply by contractor	List of minimum spares to be handed over to DMRC at the end of DLP is provided in Addendum-1. This however does not change the DLP requirements mentioned in Scope of Work. For the works performed in this project, the contractor shall ensure supply of all spares and consumables as per site requirements during DLP.
25	44. Additional Clause Stage payment	For all items where Supply, Erection, Testing and Commissioning, all are combined in one item and rates are not identified separately, the following percentages of the agreed rate for the item, shall be paid as stage payments: S. No BOQ Item No. Delivery of Material -75 % Payment after Erection - 15 % Payment after successful Testing & Commissioning & Handing Over - 10 %	May we request for following ayment terms For all items where Supply, Erection, Testing and Commissioning, all are combined in one item and rates are not identified separately, the following percentages of the agreed rate for the item, shall be paid as stage payments: S. No BOQ Item No. Delivery of Material - 85 % Payment after Erection- 10 % Payment after successful Testing & Commissioning & Handing Over - 5 %	Please follow tender conditions.
26	Clause 4.13 of GCC	Programmes The Contractor shall submit a detailed programme to the Engineer after receipt of the Letter of Acceptance not later than 28 days from the date of receipt of Letter of	We understand that Rajiv Chowk station and Shashtri park building are both operational. Please confirm that access to site to work shall be made available to the contractor round the	Access to the contractor shall be made available as per the requirement. Clause 8.5 of GCC shall be followed.

		Acceptance. The Contractor shall also submit a revised programme whenever the Engineer finds that the previous programme is inconsistent with actual progress or with the Contractor's obligations	clock. In case of only/mostly night access and limited working hours we request you to delete clause 8.5 of GCC	
27	Clause 4.21 of GCC Sheds stores yards	It shall be the responsibility of the Contractor to provide at his own expense therequired sheds, store houses, and yards for both Permanent and Temporary Worksand provide free access to the Engineer and the Engineer's Representative who willhave right of inspection including that of instructing the Contractor to remove a particular material from the stores and not to use the same on the Works.	We request you to please consider providing us with Space for temporary site office at Sites and space for Sheds, stores and yards at no cost to contractor	DMRC shall provide space for office and space for storage of materials near Shastri Park Depot. Contractor shall build office and build store to meet project requirements.
28	Clause 6.8 Scope of work	SPARE PARTS, SPECIAL TOOLS & TEST EQUIPMENT: GENERAL During the Defects Liability Period, the Contractor shall provide free of cost all materials including consumables, unit exchange spares and emergency spares required for maintenance (routine and breakdown) of the Electrical and Mechanical Systems (EMS). EMS also include Station Environmental Control and Building Management System provided under the Contract. Before the commission of revenue services the contractor shall supply the spares, jigs and fixtures materials not later than 6 weeks before the commissioning of revenue services. A list of such spares and materials required for maintenance during the Defects Liability Period and to be provided free of cost by the Contractor and if list is found insufficient then the same need to be augmented for preventive and corrective maintenance of all the equipments supplied under the contract without any extra cost.	Please provide the list of spares and special tools which need to be provided free of cost at the end of DLP period	List of minimum spares to be handed over to DMRC at the end of DLP is provided in Addendum-1. This however does not change the DLP requirements mentioned in Scope of Work. For the works performed in this project, the contractor shall ensure supply of all spares and consumables as per site requirements during DLP.

29	Clause 6.8.1 scope of work	The Contractor shall bring free of cost six weeks before start of trial running special tools and test equipment which are essential for day to day use in both corrective and preventative maintenance and for workshop use in the overhaul of all modules and units likely to be required over the full service life of the installation. The Contractor shall submit a schedule of all tools and equipment with details of calibration and supplier along with the tender. if list is found insufficient then the same need to be augmented for preventive and corrective maintenance of all the equipments supplied under the contract. If these tools and equipments shall become the property of the Employer at the end of Defects Liability Period.	Please provide the list of special tools and test equipment which need to be provided free of cost at the end of DLP period	List of minimum spares to be handed over to DMRC at the end of DLP is provided in Addendum-1. This however does not change the DLP requirements mentioned in Scope of Work. For the works performed in this project, the contractor shall ensure supply of all spares and consumables as per site requirements during DLP.
30	Clause 6.8.2 scope of work	The Contractor shall submit during the period of contract a schedule of spare parts required for EMS duly indicating, for each item of spares, its description, part number, drawing number, lead time, shelf life and number of units required for the ten years (beyond DLP) as well as for the expected life of EMS, principal as well as secondary sources of supply and also the unit price of each spare with escalation clause if list is found insufficient then the same need to be augmented for all the equipments supplied under the contract. This schedule shall include all types of consumable, unit exchange and emergency spares.	Please provide the list of spare list which need to be provided free of cost at the end of DLP period	List of minimum spares to be handed over to DMRC at the end of DLP is provided in Addendum-1. This however does not change the DLP requirements mentioned in Scope of Work. For the works performed in this project, the contractor shall ensure supply of all spares and consumables as per site requirements during DLP.
31	item 9.2 and 9.3 of BOQ schedule S1		Please specify if these item need to be insulated	Yes, insulation thickness is already mentioned in the BOQ.
32	item 13 of BOQ schedule s1	Electrical Panel & Associated Electrical Works	We understand the panel is siemens make. Please list us the switchgear required Also 20 % spare space requirement	Please follow tender conditions. Switchgear to be provided as per BOQ and as per system requirements.

			will not be catered to if existing panels are modified. Please confirm	
33	item 13 of BOQ schedule s1	Electrical Panel & Associated Electrical Works	Pease provide us the GA drawing and SLD for the panel and the system	Will be provided after award of work.
34	item 3 of BOQ schedule s1	Air-handling Units (Double Skin)	The scope of work is not clear on existing AHU. Please clarify if existing AHU will remain installed or they shall also be dismantled.	No work is to be done in existing AHUs. Only PICVs to be installed in place of three way valves in the existing water circuit.
35	Expansion tank		Please clarify if expansion tank shall be increased in capacity as it is not a BOQ item.	Design is in the scope of contractor. Contractor to select the capacity of expansion tank required. If required, new item will be paid separately.
36			Request you to please accept $\pm 5\%$ variation in capacity at tender design conditions, as exact 600TR is not available. The chiller operates at Off Design condition for 99% of time and will deliver 600TR.	Minimum 600TR at tender design condition is required
37			Please confirm the sound levels required at 75%, 50% and 25% should be less than 100% load. ASHRAE guidelines AHRI 370- 575 measures sound levels at 100%, 75%, 50% and 25% load.	Max sound shall be 90dBA at 1 m from the chiller measured as per ASHRAE guidelines
38			Please confirm if chiller required shall be surge free.	Please follow tender conditions.
39	RAJIV CHOWK BOQ. ITEM NO -2 - WATER COOLED CENTRIFUGAL CHILLER	SITC of 600 TR water cooled centrifugal chiller.	We request you to allow the chiller capacity with +/- 5% variation to offer most competitive price for chillers. Otherwise its suiting to only one vendor, who may monopolize. Please clarify whether cabling between the VFD and the compressor motor is payable extra or it is bifurcated as part of the chilling machine.	Minimum 600TR at tender design condition is required

40	RAJIV CHOWK BOQ. ITEM NO -3 and 4 - Pump.	SITC of Vertical in-line pump - Primary variable pump and condenser water pump	<ol style="list-style-type: none"> 1) The pump efficiency for primary variable pump (414 GPM @ 45M head) is only 45-50% as suggested by the pump manufacturer. However, for other pumps the minimum efficiency shall be minimum 75% as per ASHRAE. 2) The pump shaft shall be long enough to facilitate the easy removal of mechanical seal. Stub shaft shall not be used as it requires complete motor to be lifted up (with some chain pully block arrangement) along with impeller to change the mechanical seal. We shall be providing SS 416 shaft. 3) The pump coupling shall be rigid split type for easy maintenance. 4) For inline pumps, since foundation of pumps is not required, our price does not include the same. We request you to include two reputed manufacturer / supplier - Armstrong / Grundfoss in your tender. 5) The Color code of pumps shall be as per manufacturer standard. 	<ol style="list-style-type: none"> 1. Please follow tender conditions. 2. Will be evaluated during technical approval of material. 3. Will be evaluated during technical approval of material. 4. Contractor to assess for the foundation as per the technical approval. The vendor will be approved as per the vendor approval procedure. 5. Acceptable
41	RAJIV CHOWK BOQ- ITEM NO 12.7 - WIRE CONTAINMENT SYSTEM	SITC of Fire resistant type cable.	Please clarify the type of fire cable required. Whether it is mica insulated or low smoke zero halogen type.	Flame retardant LSZH.

42		GCC-SCC	The price validity of tender shall be upto handing over or 15 months from the date of opening of the price bid whichever ends earlier.	Prices shall remain fixed till taking over certificate for complete system is issued.
43		RAJIV CHOWK	As clarified by you, condenser water header shall not be modified. Hence our price does not include the same.	As per DMRC understanding it is not required to be changed. If header is required to be changed as per design requirements the same shall be paid as per actual measurements.
44		RAJIV CHOWK / SHASTRI PARK	As clarified, we shall be getting permission from different deptt. / authorities and you shall be assisting us for the same.	DMRC shall assist, however it is the responsibility of the contractor to take necessary clearances/permissions from local and statutory authorities.
45		SHASTRI PARK	Units shall be installed, keeping in mind existing system / panels / controls etc. and their maintenance.	Contractor to co-ordinate with DMRC during execution.