

M/s HLL Infra Tech Services Ltd. (HITES)
(Subsidiary of HLL Lifecare Ltd, A Government of India Enterprise)
As Executing Agency of
Ministry of Health & Family Welfare Government of India

HITES/NEW AIIMS/GUWAHATI/2018-19/

29.11.2018

CORRIGENDUM-05

Name of the work: Design, Engineering, Procurement and Construction (EPC) including Operation & Maintenance of All India Institute of Medical Sciences at Guwahati (Assam), INDIA

Ref: Tender No. : HITES/AIIMS-GUWAHATI/2018

The Corrigendum-05 shall be treated as part of e-tender to be uploaded online duly signed and stamped along with e-tender:

Amendment to existing e-Tender Clause

Sl. No.	Ref. to tender	Existing Clause	Amended Clause
1.	Clause 2.1.2 Exchange Software (Page No. 321)/IPABX System/Vol. 5 - Technical Specifications	The acceptable makes of the offered equipment for IP PBX, IP Phones and UC clients shall be as per Leader's quadrant of Gartner's magic quadrant for unified communications from the latest publication of Gartner.	The acceptable makes of the offered equipment for IP PBX, IP Phones and UC clients shall be as per Gartner's magic quadrant for unified communications.
2.	Clause 1.3- Active Components (Page No. 311,	Should have compatibility to work in atmospheric temperature range -5 degree C to 50 degree C.	Should have compatibility to work in atmospheric temperature range 0 degree C to 45 degree C.

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	312,313,314)/LAN Networking & WIFI SYSTEM/Chapter-I Low Voltage System/ Vol. 5 - Technical Specifications		
3.	Data Networking & WIFI System (Page No. 672)/Chapter-S List of Approved Makes – Services & Related works/ Vol. 5 -Technical Specifications	<p>Active Components – Core and Edge switch:- approved Makes (CISCO/ Juniper/HP)</p> <p>Ethernet Switch / Indoor & Outdoor WIFI device/ Trans-receiver:- approved Makes (CISCO/ Juniper/HP)</p>	<p>Active Components – Core and Edge switch:- approved Makes (CISCO/ Juniper/HP/Alcatel)</p> <p>Ethernet Switch / Indoor & Outdoor WIFI device/ Trans-receiver:- approved Makes (CISCO/Juniper/HP/Alcatel/ Ruckus)</p>
4.	<p>Clause 1.3- ACTIVE COMPONENTS</p> <p>1.3.1. Firewall with Unified Threat Management (UTM)/ Vol. 5 -Technical Specifications</p>	<p>The Firewall should support IPSEC & SSL VPN, inbound and outbound both. The IPSEC VPN should deliver at least 20 Gbps throughput to ensure connectivity with Multiple colleges / University catering to Data / Voice traffic over IPSEC tunnel.</p> <p>The Firewall should be able to handle very high concurrent sessions like 20 Million or above and at least 400,000 of new sessions per second.</p>	<p>The Firewall should support IPSEC & SSL VPN, inbound and outbound both. The IPSEC VPN should deliver at least 12 Gbps throughput to ensure connectivity with Multiple colleges / University catering to Data / Voice traffic over IPSEC tunnel.</p> <p>The Firewall should be able to handle very high concurrent sessions like 20 Million or above and at least 200,000 of new sessions per second.</p>

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5.	Chapter-J, Design Basis Report -Fire Fighting System, DBR,Vol-4 (page 92)		<p>Add Clause 4.5:</p> <ul style="list-style-type: none"> • For all Building/Blocks: IS 3844:1989 shall be followed for Fire Fighting installations. • For Hospital Building, No. of Wet Risers shall be provided in accordance with IS 3844:1989. Table I, Clause II (iii) wherein one wet riser per 1000 sqm floor area per floor/block is required. <p>In addition to this, Clause 5.2.2 of IS 3844:1989 also needs to be adhered to which states:</p> <p><i>“The distribution of wet riser installation in the building should be so situated as not to be farther than 30 m from any point in the area covered by the hydrant & at a height of 0.75 m to 1m from the floor. The rising mains should not be more than 50 m apart in horizontal”.</i></p> <p>Also, all firefighting installations shall be provided in conformity with prevalent statutory norms/ bye law’s & other relevant norms & standards as applicable.</p>
6.	Clause 3.9.5, a., DBR, Vol-4, Page (page 39)	<u>Reinforced Cement Concrete (RCC)</u> : As per Table 5 of IS 456-2000 keeping in view loads the proximity of the Structure, Minimum grade of concrete to be used is M30. Exposure condition is severe. Maximum size of coarse aggregate is 20 mm. Maximum w/c ratio is 0.45.	<u>Reinforced Cement Concrete (RCC)</u> : As per Table 5 of IS 456-2000 keeping in view loads the proximity of the Structure, Minimum grade of concrete to be used is M30. Exposure condition is severe. Maximum size of coarse aggregate is 20 mm. Maximum w/c ratio is 0.45.

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		<p>Minimum cement content (including mineral admixtures as specified in IS 456-2000) shall be 410 kg/m³. Type of cement shall be Ordinary Portland Cement (OPC).</p> <p>The additions such as fly-ash or ground granulated blast furnaces slag may be taken into account in the concrete composition with respect to the cement content and water cement ratio, if the suitability is established and as long as the maximum amount taken in to account do not exceed the limit of Pozzolana specified in IS:1489 (part-1). However, the maximum percentage of fly-ash shall be 25% of the total cement content (including mineral admixtures).</p> <p>In case, Portland Pozzolana Cement (PPC) is used, no additional mineral admixtures shall be permitted.</p>	<p>Minimum cement content (including mineral admixtures as specified in IS 456-2000) shall be 340 kg/m³. Type of cement shall be Ordinary Portland Cement (OPC).</p> <p>The additions such as fly-ash or ground granulated blast furnaces slag may be taken into account in the concrete composition with respect to the cement content and water cement ratio, if the suitability is established and as long as the maximum amount taken in to account do not exceed the limit of Pozzolana specified in IS:1489 (part-1). However, the maximum percentage of fly-ash shall be 25% of the total cement content (including mineral admixtures).</p> <p>In case, Portland Pozzolana Cement (PPC) is used, no additional mineral admixtures shall be permitted.</p>
7.	Clause 3.10.3, e., Design of Lintel Beams, Chajja & Loft, DBR, Vol-4, Page (page 42)	<p><u>Design of Lintel Beams, Chajja & Loft</u></p> <ul style="list-style-type: none"> • The lintel beams will be designed for: • Weight of brick masonry above the lintel level. • Load from RCC Chajja attached to the lintel. • Torsion moment due to eccentricity of the Chajja/loft. <p>Lintel beam shall have a minimum bearing equal to the</p>	<p><u>Design of Lintel Beams, Chajja & Loft</u></p> <ul style="list-style-type: none"> • The lintel beams will be designed for: • Weight of brick masonry above the lintel level. • Load from RCC Chajja attached to the lintel. • Torsion moment due to eccentricity of the Chajja/loft. <p>Lintel beam shall have a minimum bearing equal to the</p>

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		thickness of the wall on which it is supported or the depth of the lintel beam, whichever is greater. It shall be designed as a simply supported rectangular section. Chajja/loft will be designed as a cantilever slab.	thickness of the wall on which it is supported or the depth of the lintel beam, whichever is greater. It shall be designed as a simply supported rectangular section. Chajja/loft will be designed as a cantilever slab. Pre-Cast/ Cast-in-situ Lintels Beams can be provided as per design requirement.
8.	Chapter B, Design Basis Report-Civil Structures, DBR, Vol-4 (Page 30)	----	Add Clause 3.10.5: Mechanical Couplers conforming to IS 16172 & IS 456 shall be used for Reinforcement bars of diameter 16mm & above.
9.	Clause 3.10.3, g., Design of Footings, DBR, Vol-4, Page (page 42)	<p><u>Underground Sump combined with WTP/Overhead Water tank</u></p> <p>Underground water tank would be designed to sustain the following two cases-</p> <ul style="list-style-type: none"> • Tank full and No earth fill. • Tank empty and active earth pressure acting from outside. <p>The walls and base slab would be designed as per the provisions of IS: 3370 (Part1- Part4)-1965 using the working stress method. Overhead water tank would be designed to sustain the water load at full tank condition as per the provisions of IS: 3370 (Part 1- Part4) -1965 using</p>	<p><u>Underground Sump combined with WTP/Overhead Water tank</u></p> <p>Underground water tank would be designed to sustain the following two cases-</p> <ul style="list-style-type: none"> • Tank full and No earth fill. • Tank empty and active earth pressure acting from outside. <p>The walls and base slab would be designed as per the provisions of IS: 3370 (Part1- Part4)-2009 using the Limit State Method. Overhead water tank would be designed to sustain the water load at full tank condition as per the provisions of IS: 3370 (Part 1- Part4) -2009 using</p>

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		the Working Stress method.	the Limit State Method.
10.	Clause 7 (i), C- Design Basis Report- Civil Works, DBR, Vol-4 (Page 45)	<p>The bricks used in the brick work shall be either 7.5 class designation, common burnt clay bricks conforming to IS: 1077 or 10 class designation, Fly ash lime gypsum (FALG) bricks conforming to IS: 12894, as follows:</p> <p>a. Common burnt clay bricks shall be used for all substructure works upto plinth level, all wet areas viz toilets, kitchens, pantries, manholes, sewers etc.</p> <p>b. Fly ash lime gypsum (FALG) bricks shall be used for superstructure and all other works.</p>	<p>The bricks used in the brick work shall be either 7.5 class designation, common burnt clay bricks conforming to IS: 1077 or 10 class designation, Fly Ash Cement Bricks of approved quality, as follows:</p> <p>a. Common burnt clay bricks shall be used for all substructure works upto plinth level, all wet areas viz toilets, kitchens, pantries, manholes, sewers etc.</p> <p>b. Fly Ash Cement Bricks shall be used for superstructure and all other works.</p>
11.	Clause 19 (ii), Water Proofing Treatment, Design Basis Report- Civil Works, DBR, Vol-4 (Page 52)	The Water proofing treatment of terrace shall be done with Integral Cement Based water proofing treatment (brick bat coba) as per CPWD specification with Khurras, Golas etc. complete	<p>The Water proofing treatment of terrace shall be done as per specification detailed below:</p> <p>a. Surface Preparation: Cleaning of the surface, treating of construction joints, filling of honeycombs etc. of slab to be carried out before executing water proofing treatment.</p> <p>b. Applying over the cleaned surface instant setting spray polyurethane waterproofing system of 10 mm thickness with a density of minimum 55 kg /m³, having fire resistance property confirming to class B2 as per DIN 4102; having min 96% closed cell content of approved make and as per the manufacturer's recommendations.</p>

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			<p>c. Over above layer, providing and applying, water proof membrane of liquid of pure polyurethane based, single component, low VOC, elastomeric, seamless & having solid content 90% (as per ASTM C836), elongation at break of 400%. The membrane to be applied with a brush/roller in 2 coats to achieve a DFT of 0.70mm (consumption @ 1.0 kg/Sqm).</p> <p>d. Over the above membrane Geotextile 150 gsm (non-woven polyester) to be spread.</p> <p>e. A layer of 60mm avg. thick M20 grade screed to be laid with required slope all around on the roof/terrace. At the parapet wall junction, an angular fillet of 50 mm X 50 mm to be provided of cement-sand mortar in 1:3 proportion including applying a coat of SRI Coating reinforced with glass cloth reinforcement at the joint of angle fillet and screed.</p> <p>f. The concrete shall be exposed by cutting grooves of size 6mm(W) x35mm(D) by saw cutting into panels of size 2.5x 4mtrs, the grooves formed by exposing the concrete shall be filled with Bituminous sealant.</p> <p>g. Over above the screed concrete applying fiber reinforced water based acrylic waterproofing</p>

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				<p>cum high SRI value Of 99, in two coats with a roller/brush at a consumption of 1 litre/sqm</p> <p>The Water proofing treatment shall be of approved make and guaranteed for TEN YEARS, to be reckoned from the date of expiring of the Defect Liability period prescribed in the contract</p>	
12.	Clause 7.3, A-5. (Page 26) & Clause 3, (Page 75) of DBR, Vol-4	Rainwater harvesting for managing the rainwater runoff from roof and ground surfaces.		Managing the rainwater runoff from roof and ground surfaces to Storm Water Drainage.	
		Dispose roof run-off and surface water flows into the proposed harvesting Pits which will help in ground water recharge.		<p>Dispose roof run-off and surface water flows into the proposed Storm Water Drainage System.</p> <p>The storm water from the main storm drain of the campus shall be discharged in the proposed Storm water drain system of Local Municipal Authorities outside the premises.</p>	
13.	Clause 3.9.1, D., DBR, Vol-4, Page (page 39)	Seismic Zone	Zone V	Seismic Zone	Zone V
		Seismic Importance Factor 'I'	1.5	Seismic Importance Factor 'I'	
		(i) Hospital buildings, Medical College & Nursing College, Auditorium, substations and other important	1.2	(i) Hospital buildings, Medical College & Nursing College, Auditorium, substations and other important	1.5

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		(ii) Residential, Hostels and other buildings		(ii) Residential, Hostels and other buildings	Residential with more than occupancy 200 only =1.2 All Other Buildings=1.0
14.	Drawing Nos. AIIMSG/PL/SW/00 1, Storm Water Layout Site Plan, Tender Drawings, Vol-6	<p>NOTE: THE REFERENCE DRAWING IS PURELY INDICATIVE & SOLELY MEANT TO PORTRAY THE SCOPE & QUANTUM OF WORKS INVOLVED AT AIIMS GUWAHATI. ANY CAPACITY/QUANTITY OF ITEMS SHOWN IN DRAWING ARE ALSO INDICATIVE. THE EPC CONTRACTOR SHALL HIMSELF ASSESS THE ACTUAL QUANTITIES OF ITEMS AS PER FUNCTIONAL & STATUTORY REQUIREMENTS AT SITE & GET THE SHOP DRAWINGS APPROVED FROM HITES BEFORE COMMENCEMENT OF ANY WORKS.</p>		<p>AMENDED NOTE: THE REFERENCE DRAWING IS PURELY INDICATIVE & SOLELY MEANT TO PORTRAY THE SCOPE & QUANTUM OF WORKS INVOLVED AT AIIMS GUWAHATI. ANY CAPACITY/QUANTITY OF ITEMS/ LEVELS/SIZE/ EXTERNAL CONNECTION TO MUNICIPAL DRAINAGE SYSTEM SHOWN IN DRAWING ARE ALSO INDICATIVE. THE EPC CONTRACTOR SHALL HIMSELF ASSESS THE ACTUAL QUANTITIES OF ITEMS / LEVELS AS PER FUNCTIONAL & STATUTORY REQUIREMENTS AT SITE & GET THE SHOP DRAWINGS APPROVED FROM HITES BEFORE COMMENCEMENT OF ANY WORKS.</p>	

Important Note:

1. The above Corrigendum shall form part of the Tender Document and is to be submitted duly signed by the applicants along with their Application.
2. All other terms & condition of Tender document remains unchanged.
3. Prospective bidders are advised to regularly scan through MSTC e-tender Portal, HITES website tender page and CPP Portal for corrigendum/amendments etc. and separate advertisement will not be made for this.

**The Vice President (ID)
M/s HLL Infra Tech Services Ltd. (HITES),
As Executing Agency
Ministry of Health & Family Welfare, Govt. of India**

END OF CORRIGENDUM-05