Question and Answer No. 8

ITB-804/18-Rehabilitation of Ibn Al Atheer Hospital Building, East Mosul, Ninewa Governorate

No.	Question submitted by bidders	Answer by Technical and Procurement Teams
1	Item No. 41 in mechanical BOQ you write (pressd plate steel) but in mechanical drawing (ME - 35) you write (GRP) (Glass reinforced plastic) this different please check that.	Follow the drawing details GRP tank, as it is a hygienic location and GRP tanks used in the hospitals and hygienic locations.
2	Item No. 38 in mechanical BOQ you write (pressd plate steel) this tank capasity 30000 liter used for fuel. please pressed plate steel used just for water tank not fuel tank please check that.	Construction of 5 mm thick black steel, complete with valves, level monitor, manholes, level switches, vents, 2 layers of anti-rust painting, and 2 layers of oil painting and with all accessories.
3	Architectural In the provided drawings, 48 window types are available starting from W1 to W48 out of which however some are not indicated/stated in BoQ as per below: W2,W3,W6,W7,W8,W11,W13,W14,W15,W16,W17,W18,W19, W21,W22,W23,W24,E25,W26,W27, & W47	The architectural drawings illustrated all windows in the hospital, existing, damaged and new proposed. Refer to architectural drawings AR-113 & AR-114 to indicate all windows need to be replaced and all new proposed.
4	Structural & Civil Works Site Civil Works - A. Roof Treatment, Item 4: The unit provided in BoQ is in M2, while engineering and practical-wise should be in ML – Expansion Joints normally can't be quantified in M2.	Please follow to the unit mentioned in the BOQ.
5	Structural & Civil Works Site Civil Works – C. Steel Fence Works, Item 2: The details and drawings for the new fence, do not match the actual condition and design of the existing fence	Please refer to the BOQ "Supply materials, tools and manpower to install new pieces of steel fence with the same shape, dimension and decoration in all missing location, the work including welding and painting these pieces with two layer of anti-rust paint"
6	Structural & Civil Works	Please refer to the architectural drawings AR 116 (Ground Floor Plan and Section A-A) and drawing AR 122 for D17 detail.

	New Medical Gas & Boiler (Machine) Rooms: No detail and item are indicated in BoQ for the required openings (i.e. Doors)	Refer to the note mentioned in the BOQ"Note: the price covers the ironmongery, stoppers, slow down tool (if needed), protection aluminum plate, adjustment of the structural opening for all doors."
7	Mechanical Works AHU No. 26, as per drawings and compliance sheet it showing that, AHU No.26 is should be hygienic type but in the BoQ it is been listed within nonhygienic AHU type.	AHU No.26 should be a hygienic type.
8	Mechanical Works BoQ Mechanical Works A.C item No. 15.2 (AHU 24), the BoQ item quantity is showing (six) but as per drawings it is (one).	The quantity of (AHU 24) is one, please refer to drawing AC-27 & AC-28.
9	Mechanical Works For hygienic AHUs, it is recommended to use coil type heat recovery than using plate type, kindly advice which type is recommend by UNDP.	Plate type should be used.
10	Mechanical Works For hygienic AHUs, we think that the designer did not consider the static pressure for the HEPA filters , because the external static pressure of the hygienic AHUs (listed in the equipment schedule) is low (20 mmWG).	As specified: As mentioned in BOQ, Items 15.1, 15.2 & 15.3 for all AHU units used in operation room the external static pressure is not less than 700 Pascal. AHU- 25 (100% Fresh) Flow Capacity=204 MBH Rate=2800 cfm External static pressure not less than 700psi AHU-23 (100% Fresh) Flow Capacity=168 MBH Rate=2200cfm) External static pressure not less than 700psi (Fresh)

		AHU- 24 (100% Fresh) Flow Capacity=180 MBH Rate=2600 cfm External static pressure not less than 700psi
11	Mechanical Works For air ducting of Operation theaters, neither in BoQ nor in Drawings/specifications there is no any VAV/CAV box to control the air flow for (-/+) pressure.	The AHU used with heat recovery to control the suction air to get positive pressure is mentioned in the CFM for supply and delivery drawings (AC-05 & AC-15) and in BOQ item 15
12	Mechanical Works Mechanical drawings AC-12 and AC-14, the AHU coils and Fan coil pipe connections shows two way valves but in the BoQ and drawing AC-31 it is mentioned and showing 3-way valve to be used within piping connection. We think that, 3-way valve is correct because the design HVAC pumps are fixed speed not variable speed. Kindly advice.	It is a 3-way valve as mentioned in item #15 in BOQ.
13	Mechanical Works Drawing No. SA-03 (Heavy Water Site Plan): It is showing that, the pipes between submersible pumps and water treatment plants is (100mm Black Steel pipe). First, black steel pipes is not recommended for waste water piping network. Second, the mentioned pipe type is not available in Sanitary Works BoQ. If these pipes are already existing at the site, they have to be changed with suitable pipes (i.e. corrugated HDPE pipes or other suitable types).	Use black steel pipes that are internally coated with Anti-Bacterial paint because of high pressure. During implementation If there is an available alternative that supports high pressure the contractor should Submit the data sheet for approval.
14	Mechanical Works For Air Cooled Packaged Units, except the BoQ items description (Mechanical work A.C, item 43, 44 & 45) there is no any details for the units. Could you please provide more details as been provided for the other HVAC equipment.	As Specified: Air Package Unit (25 ton) produces 100% fresh air and the Details of the unit are: - 100% fresh air package unit - Air inlet temp. = 52 C - Air outlet temp from coil = 14C - Air quantity as in drawings = 3600 CFM

		- Total capacity = 25 TONS - Total external pressure = not less than 300 pascal - Humidity = 26 C°. Air Package Unit (18 ton) produces 100% fresh air and the Details of the unit are: - 100% fresh air package unit - Air inlet temp. = 52 c - Air outlet temp from coil = 14c - Air quantity as in drawings = 2600 cfm - Total capacity = 18 tons. - Total external pressure = not less than 300 pascal. - Humidity = 26 C°. Air Package Unit (15 ton) produces 100% fresh air and the Details of the unit are: - 100% fresh air package unit - Air inlet temp. = 52 c - Air outlet temp from coil = 14c - Air quantity as in drawings = 2200 cfm - Total capacity = 15 tons. - Total external pressure = not less than 300 pascal. - Humidity = 26 C°.
15	ITB_804_18-BMS_Point_List-Amendment_No._1-24012019.xls: As per the ITB_804_18-BMS_Point_List-Amendment_No._1-24012019.xls there are 36 each AHU control point. But as per ITB_804_18-Drawings-AC_and_ME-Amendment_No._1-24012019.pdf/page 6 there are 31 each AHUs. Please clarify which quantity is correct.	It is 31 Points, attached please the revised points list.

16	ITB_804_18-BMS_Point_List-Amednment_No._1-24012019.xls: As per the ITB_804_18-BMS_Point_List-Amednment_No._1-24012019.xls there are 30 each exhaust fan control point. But as per ITB_804_18-Drawings-AC_and_ME-Amendment_No._1-24012019.pdf there are 36 each AHU. Please clarify which quantity is correct.	There is difference between exhaust fans and air handling units AHUs. However the quantity of Exhaust fans counted in Mech BOQ are 30 (refer to items 28.1 to 28.5) while that for the AUH are 31, as mentioned in the point list
17	ITB_804_18-Drawings-AC_and_ME-Amendment_No._1-24012019.pdf page 9 drawing name "COOLING & HEATING EQUIPMENT IN MACHINE ROOM: As per the ITB_804_18-Drawings-AC_and_ME-Amendment_No._1-24012019.pdf page 9 drawing name "COOLING & HEATING EQUIPMENT IN MACHINE ROOM there are 7 each exhaust fan but these are not shown in point list please clarify if these fans to be added in point list.	Please refer to the revised BMS point list.
18	ITB_804_18-Drawings-BMS-Amendment_No._1-24012019.pdf .page 8: As per the ITB_804_18-Drawings-BMS-Amendment_No._1-24012019.pdf .page 8 FCU to be controlled by using Ittelligent Room Thermostat. The status information will be sent to the BMS from the FCU fan motor, and the FCU will be run from the BMS via the enable / disable command. If we do this, it will need to connect to 211 Digital Input + 211 Digital Output BMS / DDC boards. This will result in a lot of cabling and a large number of DDC controllers, which will increase the cost of the project. Already An Intelligent Room Thermostat will be used for each FCU so If this thermostat is selected as the communication type, more information / control point than the control and monitoring shown on this page can be monitored and controlled by the BMS. It also reduce the project costs. Please advise ?	The bidders are required to comply with the descriptions in the BoQ, tech. specifications and the drawings.

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<td>19</td>
<td>ITB_804_18-Drawings-BMS-Amendment_No._1-24012019.pdf .page 8: Communication type intelligent room thermostat can also be used for FCU control in common areas .
There will be more than one FCU in one location and the control of these FCUs from a single thermostat is not a problem. Controlling the FCUs from a single room thermostat and connecting the thermostat to the BMS via the communication channel is a solution that can be used for the monitoring and control of common area FCUs. Please see attached control diagram for and example. Please advice if this solition is acceptable.</td>
<td>The bidders are required to comply with the descriptions in the BoQ, tech. specifications and the drawings.</td>
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<td>20</td>
<td>Electrical works:
a- Power installation:
Some item with “Set” and M.L units:
for example: item no.1 is written: 1 set 1-3/c 25mm² CU/XLPE/PVC Cable on cable tray. At the same time inUnit column mentioned M.L and in Qty column written with 125, that is mean we are putting the price for 1m multiply by 125 because we have 1 set and 125m as bellow:
<table>
<tr><th>#</th><th>Description</th><th>Unit</th><th>Qty</th><th>Unit Price</th><th>Total Price</th></tr>
<tr><td>1</td><td>1 set 1-3/c 25mm² CU/XLPE/PVC Cable on cable tray</td><td>M.L</td><td>125</td><td>5</td><td>= 5x125</td></tr>
</table>
While for item no.22 is written: 18 set 1/c 300mm² CU/XLPE/AWA/PVC Underground or on cable ladder / tray</td>
<td>Yes, on other words the cable of 1 set-1-3/c, contractor shall consider the unit price of single cable 5$/M.L

while 18 set-3c....etc meaning a bundle of 18 cables of unit price (18x5$)/M.L have been measured in M.L
therefore, the contractor shall put the unit price of bundle of the cable (18x5$)</td>
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<td>At the same time in Unit column mentioned M.L and in Qty column written with 100, that is mean we are putting the price for 1m multiply by 100 and multiply by 18 because we have 18 set and 100m as bellow:

<table>
<tr><th>#</th><th>Description</th><th>Unit</th><th>Qty</th><th>Unit Price</th><th>Total Price</th></tr>
<tr><td>1</td><td>1 set 1-3/c 25mm² CU/XL PE/PVC Cable on cable tray</td><td>M.L</td><td>100</td><td>5</td><td>= 5x100 x18</td></tr>
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Question is: is the above understanding correct for both cases or there is another way to calculate the cost? Please clarify.</td>
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<td>21</td>
<td>As we know that the partial operation areas are required to keep the Hospital in operation that is mean temporary power with all needed facilities shall be provided.
The question is; is there any cost consideration in this regards? Please clarify. We couldn’t find it.</td>
<td>Please refer to the BOQ-General notes sheet
"The bidders need to consider the cost of any temporary works needed to keep the hospital working during the renovation works"</td>
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<td>22</td>
<td>Regarding the required specifications of the doors as per the BOQ, drawings & technical specifications, kindly we noticed that the doors' requirements are so high (for example fire rated doors for 60 & 120 minutes) and much higher in quality than the existing doors in the hospital, while such doors are not available inside Iraq and need to be ordered from outside Iraq. So, please confirm that the doors will be according to the mentioned specifications and that no deviations will be accepted.</td>
<td>The doors will be according to the mentioned specifications and that no deviations will be accepted.</td>
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