

CLARIFICATIONS TO WRITTEN REQUESTS FOR THE STREET LIGHTING REPLACEMENT CONTRACTOR(S) BID REFERENCE: 5640100/IFB/CB/02/19

SI	Ref	Question	Answer
		I am unable to assess the link for the baseline survey report on Page 111 of the IFB, as i am denied access to it.	All Bidders must obtain information by the same official source and we are unable to do otherwise.
1		Google link for Baseline Survey Report: https://docs.google.com/document/d/1KAfVGaC3y1jQhOwAu053h K0XsKuEEI2RZh9uCsvWRYY/edit#heading=h.gjdgxs	The link is still active and we hereby reproduce for your use with the latest version of Microsoft Office. If the situation persists, kindly seek an IT assistance.
		I will be grateful if you could send me another link or the report itself ASAP.	https://docs.google.com/document/d/1KAfVGaC3y1jQh OwAu053hK0XsKuEEl2RZh9uCsvWRYY/edit#heading =h.gjdgxs

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2		2.05 LIGHTING APPLICATION DESIGN The lighting design for the project should be submitted as per CIE115 gu and the road configuration will be provided on supplier's request. It is recommended that the Wattages for Luminaires to be used shall be in the range 50W - 200W We write to request for the road configuration per baseline study to enable us to propose a more accurate lighting design as part of our proposal for the bid. Find in attachment the mention of this component in the Technical	At this time, we can only provide you with schematic drawings. Please find the attached schematic drawings in the google link as per 2.05 of the baseline studies in preparation of your bid. <u>https://drive.google.com/drive/folders/1vyEylowRuWtQiEGgW7mbhz6Thweb7oDN</u>
		specification as part of the bidding documents.	
			GRP (Glassfibre Reinforced Polyester) Pole drawings have been given in the IFB. It is generally called glass fibre poles, and you might have missed the labelling.
3		We have received the Tender Documents in good faith. There were no Drawings for the Fibreglass poles.	Kindly, revisit the google drive link on drawings in the IFB.
			Upon award of Contract, the successful Contractor is supposed to confirm the designs and drawings before implementation.
4		Many thanks for the pdf drawings. We shall be grateful if you could	We have given you enough details for you to prepare your bids. The details which is in form of the given drawings are schematic to inform you of the

				Answer
	please send us AutoCAD copies as well.			configuration of the respective roads.
	Which drawings???, poles, cubicles or the	e road	s?	If you need additional information, then you will have to conduct your own visit to the project roads to verify these schemes given you.
	10.0 Cable laying accessories			
	10.1 75mm diameter upvc (class C) for road crossing or concreted or paved areas	km	0	
	10.2 Cable slabs (0.3mx 0.5mx.05m)	no.	0	
	10.3 Smooth river sand	m³	0	
	10.4 Excavation and backfilling of cable trench	km	0	
	10.5 Thrust boring for tarred road crossings	km	0	
	11.0 Earthing of Poles and control cubicles			The Cable slab is a mass concrete slab placed on the
	11.1 16mm diameter, 1.5m long earth rod with clamp complete	No.	824	cable to protect it from damage in case of digging in the area.
	11.2 16mm ² soft drawn bare copper earth wire	km	2.50	
5	11.3 16mm ² copper cable lug	No.	824	The dimensions in the highlight herewith are as follows:
	12.0 Armoured supply Cables			0.3m is the width of the slab,
	12.1 4x25 sq mm aluminium armoured (SWA) underground Cable	km	0	0.5m is the length of the slab, and 0.05m is the thickness of the slab.
	12.2 2x25 sq mm aluminium armoured (SWA) underground Cable	km	0	
	13.0 Feeding cables			
	13.1 3-core 2.5 sq mm copper feed cable (L, N & Earth)	km	12	
	We write to seek clarification on the highlig photo. What do the measurements repres length?			hed

SI	Ref	Question	Answer
6		 5. Technical Specifications The technical specification and performance requirements given in the bidding document need be closely followed. However, if the bidder thinks there is the need for revision of any portion, must be properly explained in the bid submission. Test certificates must be acquired from ISO/IEC certified testing laboratories*, especially f luminaires. From our baseline report, the existing streetlights have spans from 18m to 52m and the heights poles used are 10m and 11m. The brackets are single and double arm and the boom angles al vary from 0° to 15° with boom lengths varying from 1m to 1.72m depending on the width of t road. The roads are single carriageways and two and three lane dual carriageways. Our designs we therefore based on these parameters. The designs were cross-checked with the Dialux softwar. Due to these, the luminaires arrived at were from 150W to 200W with efficacies of _115 and 11 respectively as stated in the Bill of Quantities. The Dialux results are therefore attached Specifications in the google drive link. We write to request an integral component of the bidding documents. We request you supply us with the "design" to be validated as referenced in the bidding document. See in attachment the highlighted field.	 it for The Notes on the Dialux are re-produced, attached herewith and give the parameters we used in the of design. ^{of} design. ^{he} The Dialux results are also included. You may need them for the validation of the designs. You may use are other lighting design software for the validation. ^{te.}
7	2.01	NEMA socket (NEMA3 standard socket can be provided. NEMA 7 standard is for explosion proof, is it required?)	Our specification is for the lamps/luminaire to be enclosed in NEMA 3 enclosure for protection against windblown dust and rain (water) and in NEMA 7 explosion proof enclosure to prevent it from any combustible gas that may be produced which will lead to excessive heat/fire/explosion.

SI	Ref	Question	Answer
			This is a normal requirement for LED Luminaires.
8	2.04	Control Interface (Drivers with 0-10V dimming and DALI to be provided) Clarify on the point of pre-programming of step dimming lighting levels based on the ON time. Do you need specific pre settings based on time?	As specified the LED driver shall incorporate multiple control interfaces for dimming capability. It shall also have a programmable feature to allow pre- programming of step dimming lighting levels based on the ON time. The dimming facility will only be activated in the future but not immediately. When activated the set time shall be as follows: No dimming when light comes ON at 6.30p.m. Light brightness dimmed to 90% at 10p.m. Light brightness dimmed to 80% at 12mid night. Light brightness dimmed to 70% at 2 a.m. At 4 a.m. it shall revert to 100% lighting Level till 5.45 a.m when the photocell switches the lights off.
9	2.04	Required THD<5%. Is THD<10% acceptable?	The specification states total harmonic distortion \leq 5%. <10% is therefore too high and not acceptable
10	2.05	Design inputs required (min. avg. lux level, min. uniformity, road width, pole to pole distance, height of pole). You have provided road drawings but there are many different road widths and patterns. We'll have to follow any standard road dimensions and pole to pole distance for designing.	The Notes on the Dialux are attached and give the parameters we used in the design. The Dialux results are also included. You may need them for the validation of the designs. You may use other lighting design software for the validation.

SI	Ref	Question	Answer
			Section VII. Form of Particular Conditions of Contract and Annex to the Contract, Item GCC 37.1 Page 179 states that:
11	3.03	Guarantee (Warranty will be provided against any manufacturing defects)	"The Defects Liability Period is: Twelve (12) Calendar Months.
			(Products however have Thirty six (36) Calendar Months Warranty). Hence products such as lights have 36 months warranty.
12	3.04 (8)	Confirm color temp. Required.	4000K to 5000K
13	3.04 (11)	Operating temp. (-40 deg to 45 deg). In Ghana is there a requirement of -40 deg temp? Will -10 deg be acceptable?	The Minimum Outdoor Shade Temperature stated in the service conditions for the project area is15° C, hence -10 deg to 45 deg is acceptable.
14	3.04 (17)	Confirm the exact requirement.	The Tele management feature is to be deleted since it may never be used.
15	LOT 1	Aluminium poles not specified in the Bill of Quantities - Lot 1 (SW). Is there an existing aluminium pole? Will dismantling be done?	There are no Aluminium poles required in LOT 1 (SW) hence not included in the Bill of Quantities. Dismantling will not be done either.

SI	Ref	Question	Answer
16	LOT 1	Application area of galvanized and fiberglass poles is not specified in map, that is important to calculate the labor cost of Project. Could you provide us more details?	Quantity of poles per road is given in the link in Answer SI 23 below.
17	LOT 1	In the BIDDING DOCUMENT page 172 all roads of Project are specified but It is not specified how many pole assemblies will be made on each line.	Quantity of poles per road is given in the link in Answer SI 23 below.
18	LOT 2	Requested 20.2 km new line but the area of the line is not specified. The quantity and type of pole and the quantity and power of lamps are not specified. Could you provide us more details?	Quantity of pole types per road and the power rating of the lamps is given in the link in Answer SI 23 below.
19	LOT 2	Thrust boring for tarred road crossings is requested in the Bill of Quantities - Lot 2 (SC) but it is not mentioned in BIDDING DOCUMENT / Section III. Bid Review, Evaluation Criteria, and Bidder Qualification Requirements / 2.5. Equipment. Could you provide us more details?	 Trust boring shall be carried out under highways for cable laying across highways. The source of trust boring equipment has to be stated by the Contractors in their bid. This is one of the very important equipment and shall be treated in the tender evaluation as other equipment.
20	LOT 3	Requested 2 km new line but the area of the line is not specified. The quantity and type of pole and the quantity and power of lamps are not specified. Could you provide us more details?	Quantity of pole types per road and the power rating of the lamps is given in the link in Answer SI 23 below.

SI	Ref	Question	Answer
21		Is it enough to fill out the Form EXP-2: Similar Construction Experience?, Do you want the document approved by the concerned authorities? If yes what is the concerned authorities?	Please fill FORM EXP-2 and also provide Evidence of Award and Completion Certificates with references.
22		There are many deficiencies in technical specification files; we kindly ask you to provide us more details regarding the fibreglass poles, luminaires, brackets, cables and other items.	The Contractor on his own has to look for the additional details since he has not stated the specific details he is looking for.
23		 3.0 Geographic Information System (GIS) 3.1 Introduction As indicated in Section 4.1.1.2 of the TOR, the following outputs are to be delivered as part of Task 1 deliverables of the assignment; Simple schematics of lighting circuits on location maps; Street lighting assembly database; and Street light circuits database with georeferenced photographs. Database files have been presented in Microsoft Excel format as specified and the schematic maps have been printed and attached to the report. The features assessed for a typical lighting circuit comprises the following; Power source - This is the immediate source of power feeding the street light circuit. These were found to be dedicated transformers, low-voltage conducting poles and ECG distribution boards. Control cubicles; Connection cables; and Lighting assemblies. We are writing to request for excel database of GIS data collected on the street lights. This will enable us to do a site-specific design	The Data base requested is in the following link: Database - Streetlight Baseline

SI	Ref	Question	Answer
		validation, particularly locating areas for cable laying and excavation to be able to ascertain the environmental conditions.	
24		Replacement and new installations to be distinguished or specified with GPS co-ordinates of each street light pole. In the present provided document, lot number, road number, sub-road number length only provided.	The quantities of each intervention have been provided in the link in Answer SI 23 immediately above.
25		If it's a replacement, total replacement of cables, foundations is not required, MiDA to clarify whether it is required or not?	Yes, total replacement of cables and foundations are not required except where they do not exist at all and new ones have to be constructed
26		In the bid documents, provided pole foundations, foundation drawings is for new installations only. Pole foundation drawings for the existing poles to be provided by MiDA.	Total replacement of foundations are not required except where they do not exist at all and new ones have to be constructed for fixing of new poles, lights etc.
27		41x, 2x, 4x design for replacement of poles, how it can be considered?	Not clear. However, all proposals must address the employer's requirements stated or implied by the best professional practice.

SI	Ref	Question	Answer
28		Load distribution schedules for cubicles or street light feeder pillars to be provided by MiDA.	The existing damaged cubicles shall be replaced with the new ones. The distribution board in the new cubicle shall incorporate a 63A three Phase (4-pole) incomer Isolator and 4nos. 32A three Phase (4-pole) outgoing circuit breakers. The new or existing cables from the supply source to the cubicle shall be terminated in the 63A incomer circuit breaker in the cubicle. The cables to the street lights shall also be terminated in the distribution board in the cubicle.
29		From specifications, it is understood that feeder pillars to be installed in a cubicle, if so, installation details to be provided by MiDA.	See explanation in Answer SI 28 immediately above. A distribution board shall be installed in each cubicle but not a feeder pillar because a feeder pillar can be very huge with very high current ratings.
30		Earth cable details to be provided by MiDA? Is it copper or Aluminium conductor?	Earthing cables are bare soft drawn stranded copper as in the bill of quantities and the earth rods are copper clad.
31		We understood from specifications that dimming provision is required for street lights as per specifications, to be clarified by MiDA.	Yes, dimming provision is to be made but not put into operation immediately. Kindly find explanation in Answer SI 8 above.
32		Is Photocell sensor required inside the FP enclosure with window glass? If not, installation details or drawings to be provided by MiDA.	The Photocell sensor may be fixed inside the cubicle with window glass for safety.

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33		We do not see the boom (arm) lengths for the light poles in Lot 2 and Lot 3. Please inform us about the specified boom length for the poles.	The existing poles have booms of different lengths ranging from 1m to 1.72m. For bidding purposes, the 1.72m boom length can be used. The details will be done by the successful Contractor.
34		Material quality not specified. What is the desired quality?	Not sure which material this refers to and the unit of measurement of its quality. However, all proposals must address the employer's requirements stated or implied by the best professional practice.
35		.UT requested for welding. Normally it is 5% or 10%. Which percentage shall be used?	Contractor to advise for MiDA consideration.
36		The galvanized thickness not given. Because of the tropical climate, thickness is important to ensure 15 years warranty	Hot deep galvanizing shall be in accordance with BS 729 And ASTM B499 Determination of Thickness of Galvanizing, as in the specifications.
37		The quantities of single and double poles are not clear. Could you also provide more detailed BoQ for length and quantities of all poles?	In the bill of quantities (boq) we have specified 10m and 11m poles complete with single or double Arm (bracket) for the new poles. There are existing poles with the arms (brackets) missing. We therefore have single and double arms (brackets) in the boq. The existing poles have booms (arms) of different lengths ranging from 1m to 1.72m. For bidding purposes, the 1.72m boom length can be used. The details will be done by the successful Contractor.

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38		Is it appropriate to use steel consoles on the composites?	Contractor to advise.
39		Can you give details for the desired extra consoles?	Contractor to give the details for MiDA Consideration.
40		Color-paint information is not given for composites, could you provide it?	Will be agreed with the successful contractor.
41		Is an accredited report requested for the type test?	We believe you are referring to the GRP Poles, The answer is "Yes"

DISCUSSIONS HELD AT PRE-BID MEETING FOR THE PROCUREMENT OF STREET LIGHTING REPLACEMENT CONTRACTOR(s)HELD AT ACCRA CITY HOTEL, BARNES ROAD, ACCRA-NORTH ON 12TH March, 2019AT 10:25HOURS.

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4.2 The following discussions and issues were raised during the meeting and re-produced herewith:

No	QUESTION
	What is the meaning of "Replacement" in the IFB?
1.	Replacement means buying LED lights and use them to replace the existing HID (High Intensity Discharge e.g. HPS) or existing substandard or damaged LED lights. The other missing or damaged materials such as poles, cables, cubicles will also be replaced with new ones by the contractor. Contractors' quotation must therefore include supply and replacement (removal of existing, transporting to a store not more than 10km away, and re-installing the new ones).

	Are we required to remove damaged poles? Where are we supposed to send them?
	Is it correct to say that we are required to design, supply, install new poles and remove some old ones?
2.	Damaged poles are to be removed and sent to the warehouses of the Municipal Assemblies under which the streets/roads fall. Some poles will be replaced with new ones. The contractors will contact the Municipal Assemblies for this. The contractors will check whether the foundations can be modified or if new ones will be constructed very close to the existing one. The Contractor is required to validate the designs hence the Dialux design is attached for validation.
3.	Task 5 of the Works Requirements requires us to prepare measurement and verification reports for the review of MiDA's appointed Consultant. For how long is this supposed to continue to be provided?
4.	You have indicated that you have undertaken the Survey of the Street Lights and now you are asking us to go and do the same Surveys. Different outcomes of Surveys by different Bidders means bidding on different basis with possible evaluation challenges.
5.	In Accra, the Street Lights are close to the sea. The poles and luminaries fast deteriorate if appropriate materials are not used. Are we permitted to change the material of the replacement poles and or luminaries?
	Generally damaged or missing existing Aluminium poles will be replaced with new Aluminium Poles and Fibreglass replaced with fibreglass and galvanized steel replaced with galvanized steel poles.
	The IFB is asking for value-added-services. What are the outlines of the value-added services? What will be the basis for evaluation? We suggest this should be defined for all Bidders to be on the same platform in the bidding process.
6.	Value added services are other advantages that the client will benefit from the contractor over the requirements of the bid such as training of the Municipal Assemblies' Engineers for the operation and maintenance of the streetlights, Life of luminaire beyond 75,000hrs. Sustainability of luminaires, energy savings etc.

	For LED light source for example, if the product is specified by a Bidder to have say a period of 75,000hrs or 90,000hrs of operation, then to verify they must get IEC certification. The Employer must then send for IEC inspection to ensure that, what is actually being supplied meets the 75,000hrs or 90,000hrs of operation.
	As things stand in the IFB, there is no such requirement for IEC inspection.
	We suggest the following wording be included in the IFB. For example 5 lights type test certification shall be sent for IEC inspection at the cost of the Contractor, and the Bidder must let this cost reflect in their Bid".
7.	In the specification under, 3 rd Party Test report, and elsewhere, the contractor is to attach -LM80 LED Test Report -Lumen Depreciation Test Reports (for a minimum 8000hours),
	This Test is to be performed in accordance with:
	 ANSI/IES LM80-15: Approved Method of Measuring Luminous Flux and Colour Maintenance of LED Packages, Arrays and Modules, and
	 IES TM21-11: Calculation of LED Life by Projecting Long Term Lumen Maintenance of LED Light sources.), its approved IEC or other equivalent.
	Please note that all Tests including 3 rd Party Tests must be in accordance with the Test requirements specified in the specifications and all costs associated with them must be included in the contractors' quotations.
	ESP: What will happen to the scraps, poles and waste we produce?
8.	Scraps to be thrown away by the contractor on the approval of the MiDA Supervision consultant. The other materials are to be sent to the warehouses of the Municipal Assemblies under which the streets/roads fall.
9.	We want to bring to your attention that if we give different technical offers as a result of different designs as required, it may be difficult to compare Bids.

	See explanation to 4 above.
	New lights and old lights may be required but the exact locations of the new lights were not seen.
10.	Most of the locations have been provided in the database. However, the successful Contractor has to validate the data since changes might have occurred at site by the start of the project.
	Are we going to change the existing Aluminium poles?
11.	Generally damaged or missing existing Aluminium poles will be replaced with new Aluminium Poles.
	Can we replace existing aluminium with Fibreglass poles?
12.	Generally damaged or missing existing Aluminium poles will be replaced with new Aluminium Poles and Fibreglass replaced with fibreglass and galvanized steel replaced with galvanized steel poles.
13.	The concrete and wooden poles specifications were seen, but we did not see the drawings.
13.	They are not required hence they are not in the bill of quantities and not in the drawings.
14.	In the case of no Transformers: Where there are no Transformers to feed the existing street lights, what do we do? Are we required to provide transformers in such situations?
	The street lights are existing and already have power supplies. Transformers are therefore not the contractors' responsibility.

15.	Replacement: Different poles requires different foundation design. Are we supposed to provide foundation designs for the new poles we are providing? Generally pole and foundation designs/drawings have been given in the drawings. If however the poles differ from those in the drawings then the contractor needs to provide his designs/drawings. This will be subject to the consultant's approval in the course of execution of the works.
	Is the process for evaluation of the Technical Offers first followed by Financials, similar to that of the Bulk Supply Point (BSP)?
16.	As in the bidding document a contractor has to obtain 80% in the technical offer before his financial offer will be opened and evaluated with the others. For the overall performance (weighted average) the Technical offer will be 80% while the Financial offer will be 20% to make a total of 100%. The winner is the contractor with the highest weighted average.
17.	Does the Contract for this bidding process include a maintenance agreement?