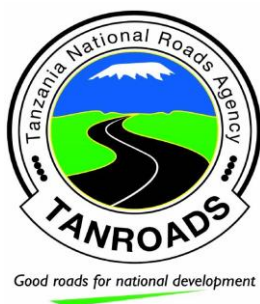


# THE UNITED REPUBLIC OF TANZANIA

## MINISTRY OF WORKS



### CONSTRUCTION OF JANGWANI BRIDGE AND ASSOCIATED WORKS

TENDER No.: AE/001/2022-23/HQ/W/56

#### Clarification No. 2

Date: 26<sup>th</sup> September 2023

With reference to the questions/queries raised by the prospective bidders and pursuant to Instructions to Bidders ITB 7.1, TANROADS is herewith providing clarifications as follows: -

S/No	Issue/Questions	Clarification/Responses
1.	<p><i>Please refer Item No. 1 of Clarification No. 1</i></p> <p>We can see mix granular fill of MSE walls in page 24 of road drawing, but do not find the quantity in the BOQ , please gently clarify it?</p>	<p><i>BOQ amended to introduce Item 36.02 (c).</i></p> <p><b><i>Please refer Item No. 2 of Addendum No. 1</i></b></p>
2.	<p><i>Please refer Item No. 3 of Clarification No. 1</i></p> <p>The unit of item 57.10 of BOQ is LS, but is provisional item under the STANDARD SPECIFICATIONS FOR ROAD WORKS-2000, please gently clarify it?</p>	<p><i>Description has been amended to be Provisional Sum in line with Standard Specification for Road Work 2000 (SSRW 2000).</i></p> <p><b><i>Please refer Item No. 5 of Addendum No. 1</i></b></p>
3.	<p><i>Please refer Item No. 5 of Clarification No. 1</i></p> <p>Item 61.34 of BOQ Establishment on site for load testing of three (3) pile tests means we just need to do three Preliminary piles' load testing? If we need to do extra load testing for working piles?</p>	<p><i>Description in Item 61.34 has been amended to match with number of tests indicated in the Special Specifications.</i></p> <p><b><i>Please refer Item No. 7 of Addendum No. 1</i></b></p>
4.	<p><i>Please refer Item No. 8 of Clarification No. 1</i></p> <p>Please clarify whether it is necessary to rebuild the BRT station because the BOQ list only</p>	<p><i>New BRT station will be constructed at another location between chainage 0+720 and 0+920.</i></p>

S/No	Issue/Questions	Clarification/Responses																																
	includes the demolition items of the existing BRT station, and there is no drawing and engineering quantity of the new BRT station.	<i>Please refer Item No. 10 of Addendum No. 1</i>																																
5.	<p><i>Please refer Item No. 25 of Clarification No. 1</i></p> <p>Taking into account the current unavailability of the Geotechnical Report, and aiming to enhance the quality of our technical proposal and provide a more precise quotation, we respectfully seek an extension of the bid submission deadline by one month at least. We eagerly await the Employer's approval for this requested extension.</p>	<i>Please refer Item No. 13 of Addendum No. 1</i>																																
6.	<p><i>Please refer Item No. 34 of Clarification No. 1</i></p> <p>Please clarify the discrepancies in quantities between the BOQ bill items and the drawings as follows:</p> <table border="1" data-bbox="316 884 928 2065"> <thead> <tr> <th data-bbox="316 884 566 996">Items</th> <th data-bbox="571 884 662 996">Units</th> <th data-bbox="667 884 794 996">Bill Qty</th> <th data-bbox="799 884 928 996">Drawings Qty</th> </tr> </thead> <tbody> <tr> <td colspan="4" data-bbox="316 996 928 1030"><b>A-Earth Works</b></td> </tr> <tr> <td data-bbox="316 1030 566 1288">Improved subgrade layer as specified in the Drawings to require minimum G 15 quality material</td> <td data-bbox="571 1030 662 1288">M<sup>3</sup></td> <td data-bbox="667 1030 794 1288">7,625</td> <td data-bbox="799 1030 928 1288">2,828</td> </tr> <tr> <td data-bbox="316 1288 566 1400">Geogrid - For trac or equivalent 80 T</td> <td data-bbox="571 1288 662 1400">M<sup>2</sup></td> <td data-bbox="667 1288 794 1400">14,400</td> <td data-bbox="799 1288 928 1400">43,650</td> </tr> <tr> <td data-bbox="316 1400 566 1545">Geogrid - For trac or equivalent R 300/50-30 T</td> <td data-bbox="571 1400 662 1545">M<sup>2</sup></td> <td data-bbox="667 1400 794 1545">25,994</td> <td data-bbox="799 1400 928 1545">31,360</td> </tr> <tr> <td data-bbox="316 1545 566 1848">Improved subgrade layer as specified in the Drawings to require minimum G7 quality material,</td> <td data-bbox="571 1545 662 1848"></td> <td data-bbox="667 1545 794 1848">151,373</td> <td data-bbox="799 1545 928 1848">Not Existing in drawings</td> </tr> <tr> <td colspan="4" data-bbox="316 1848 928 1881"><b>B- Box Culvert</b></td> </tr> <tr> <td data-bbox="316 1881 566 2065">Steel Reinforcement for Box culvert including wing walls</td> <td data-bbox="571 1881 662 2065">M<sup>2</sup></td> <td data-bbox="667 1881 794 2065">161</td> <td data-bbox="799 1881 928 2065">248</td> </tr> </tbody> </table>	Items	Units	Bill Qty	Drawings Qty	<b>A-Earth Works</b>				Improved subgrade layer as specified in the Drawings to require minimum G 15 quality material	M <sup>3</sup>	7,625	2,828	Geogrid - For trac or equivalent 80 T	M <sup>2</sup>	14,400	43,650	Geogrid - For trac or equivalent R 300/50-30 T	M <sup>2</sup>	25,994	31,360	Improved subgrade layer as specified in the Drawings to require minimum G7 quality material,		151,373	Not Existing in drawings	<b>B- Box Culvert</b>				Steel Reinforcement for Box culvert including wing walls	M <sup>2</sup>	161	248	<p><i>The quantities for BoQ Item 36.02(a) is 7,625 m<sup>3</sup> as provided in the Bills of Quantities.</i></p> <p><i>Please refer Item No. 3 of Addendum No. 1</i></p> <p><i>Please refer Item No. 3 of Addendum No. 1</i></p> <p><i>BoQ Item 36.02(b) will be utilized as embankment fill under G15 materials.</i></p> <p><i>Please refer Item No. 9 of Addendum No. 1</i></p>
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	<p><b>C-Bridges</b></p> <table border="1" data-bbox="320 174 930 506"> <tr> <td data-bbox="320 174 568 506">The unit rate of Prestressing Longitudinal Tendons and End Anchorage MN-m, kindly explain what are you referring to?</td> <td data-bbox="572 174 663 506"></td> <td data-bbox="668 174 759 506"></td> <td data-bbox="764 174 930 506"></td> </tr> </table>	The unit rate of Prestressing Longitudinal Tendons and End Anchorage MN-m, kindly explain what are you referring to?				<p><i>For Clarification refer SSRW 2000; Section 6512 – Measurement and Payment and as covered in Sub-items 65.01 and 65. 02 of the Standard Specifications for Road Works, 2000</i></p>								
The unit rate of Prestressing Longitudinal Tendons and End Anchorage MN-m, kindly explain what are you referring to?														
7.	<p><i>Please refer Item No. 39 of Clarification No. 1</i></p> <p>Section 6113.10 "Pile Testing" of the Volume 2 Specifications document stipulates that "Dynamic tests shall be carried out on 10% of working piles below each bridge pier and abutment and below the wing walls," and it also outlines the required numbers of tests for static compression load testing as indicated below.</p> <p>However, in BOQ item 61.35, the quantity specified for load testing on piles is only 3. We kindly seek clarification on the discrepancy between these two documents.</p> <p><b>Specification:</b>  <b>Static load testing of piles</b>  <i>Static load testing shall be performed and results interpreted by approved independent specialist firms.</i></p> <p><i>(a) Static compression load tests to be performed</i></p> <p><i>Static compression load testing is to be carried out on bored piles. The number of tests required is indicated below.</i></p> <table border="1" data-bbox="316 1619 943 2024"> <thead> <tr> <th data-bbox="316 1619 595 1693"><b>Location / type</b></th> <th data-bbox="600 1619 775 1693"><b>Preliminary piles</b></th> <th data-bbox="780 1619 943 1693"><b>Working piles</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="316 1700 595 1805"><i>In the area of the western abutment</i></td> <td data-bbox="600 1700 775 1805">1</td> <td data-bbox="780 1700 943 1805">3</td> </tr> <tr> <td data-bbox="316 1812 595 1917"><i>In the centre of the Jangwani Valley</i></td> <td data-bbox="600 1812 775 1917">1</td> <td data-bbox="780 1812 943 1917">2</td> </tr> <tr> <td data-bbox="316 1924 595 2024"><i>In the area of the eastern abutment</i></td> <td data-bbox="600 1924 775 2024">1</td> <td data-bbox="780 1924 943 2024">3</td> </tr> </tbody> </table>	<b>Location / type</b>	<b>Preliminary piles</b>	<b>Working piles</b>	<i>In the area of the western abutment</i>	1	3	<i>In the centre of the Jangwani Valley</i>	1	2	<i>In the area of the eastern abutment</i>	1	3	<p><i>There is no separate pay item for carrying out "Dynamic tests. This will be deemed to be included in pricing of other items.</i></p> <p><i>BOQ item 61.35, has been amended to match with quantities provided in the Special Specifications</i></p> <p><b><i>Please refer Item No. 8 of Addendum No. 1</i></b></p>
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	<p>BOQ</p> <table border="1" data-bbox="316 190 943 965"> <thead> <tr> <th data-bbox="316 190 411 264">61.3 5</th> <th data-bbox="418 190 751 264">Load Test on Piles</th> <th data-bbox="758 190 863 264"></th> <th data-bbox="869 190 943 264"></th> </tr> </thead> <tbody> <tr> <td data-bbox="316 273 411 667">(i)</td> <td data-bbox="418 273 751 667">Maximum Load test on piles compression Test, diameter 1000mm, Length 35.00-55.00m, maximum load 2125kN and 2361kN as per drawing No. B1804-08-BR-0102 to B1804-08-BR-0104.</td> <td data-bbox="758 273 863 667"><b>No</b></td> <td data-bbox="869 273 943 667">2</td> </tr> <tr> <td data-bbox="316 676 411 958">(ii)</td> <td data-bbox="418 676 751 958">Ultimate Load test on piles compression Test, diameter 1000mm, Length 35.00-55.00m, Ultimate Load determined as per SS613-U-3.</td> <td data-bbox="758 676 863 958"><b>No</b></td> <td data-bbox="869 676 943 958">1</td> </tr> </tbody> </table> <p>Please Clarify on the Total number of tests to be done on piles for both the Preliminary piles and the Working piles. This should be clear for both the BOQ and the Specification. So that the Contractor can account for this in BOQ during tendering.</p>	61.3 5	Load Test on Piles			(i)	Maximum Load test on piles compression Test, diameter 1000mm, Length 35.00-55.00m, maximum load 2125kN and 2361kN as per drawing No. B1804-08-BR-0102 to B1804-08-BR-0104.	<b>No</b>	2	(ii)	Ultimate Load test on piles compression Test, diameter 1000mm, Length 35.00-55.00m, Ultimate Load determined as per SS613-U-3.	<b>No</b>	1	
61.3 5	Load Test on Piles													
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8.	<p><i>Please refer Item No. 44 of Clarification No. 1</i></p> <p>Since we have not yet to receive your response on request for clarifications, we are asking your good office to consider extending the submission date of the bid deadline by at least one month thus becoming 27<sup>th</sup> October 2023 to allow us study/prepare our tender properly</p>	<p><b><i>Please refer Item No. 13 of Addendum No. 1</i></b></p>												
9.	<p><i>Please refer Item No. 13 of Clarification No. 1</i></p> <p>Item 42.01 of the BOQ, where is the Bituminous Base Course used? This quantity of work has not been found in the drawings.</p>	<p><i>There is no Item 42.01 in the BOQ.</i></p> <p><b><i>Please refer Item No. 4 of Addendum No. 1</i></b></p>												
10.	<p>According to profile, natural ground level is +6.96 and culvert bed level is +1.60 which is necessary to disinfect the waterway below the culvert? What is the distance required to disinfect the waterway?</p>	<p><i>Siltation within the channel is continuous process thus the distance up to the point where allows water outfall is not constant. Bidders are expected to make observation at site</i></p>												
11.	<p>After place layout of the bridge on plan There</p>	<p><i>Land compensation is</i></p>												

S/No	Issue/Questions	Clarification/Responses																														
	are buildings that need to be expropriated at stations between +1100 to +1200, Are the coordination and compensations done through the Employer, or will the procedures and fees have done by the contractor? If so, will the crushing works for buildings be added to scope of the work and accounted for?	<i>obligation of the Employer and will be done if verified during construction and found to be required.</i>																														
12.	There is no alternative route to the BRT station in tender drawings. Will it be closed until the project is completed, or will temporary diversions be made during implementation?	<i>The BRT Station at the center of the road will be demolished Refer to BOQ item 32.01 (f)</i>																														
13.	In drawing B1804-08-BR-0125/0126, the pile length is indicated as 47m, while in drawing B1804-08-BR-0104, the data specifies pile lengths of 46m and 52m. Please clarify which data should be considered accurate.	<i>Please refer to description provided in Sub Clause 6113 (p) of SSRW 2000 regarding depth of piles</i>																														
14.	<p>Drawing B1804-08-BR-0120 indicates a pile foundation concrete strength of C40/20, which conflicts with the requirements of technical specification section 6102 calling for C50 and technical specification section 6404 calling for C32/40. Please clarify which standard should be followed.</p> <p><b>6102 MATERIALS</b></p> <p>Add at the end of Clause 6102 of the Standard Specifications the following:</p> <p><b>(j) Concrete</b> The concrete for the manufacture of the reinforced concrete piles shall be Class 50 in accordance with Section 6400 of the Standard Specification and BS 8500.</p> <p><b>(k) Reinforcement steel</b> The reinforcement steel for the piles shall be in accordance with Section 6300 of the Standard Specification and be hot rolled deformed bars Grade 460 Type 2 according to BS 4449 (ribbed bars with yield strength 460 N/mm<sup>2</sup>).</p>	<p><i>Pile foundation concrete strength to be C40/20 as provided in the drawing B1804-08-BR-0120 and the BOQ. This description according to SSWR 2000 is concrete with characteristic cube crushing strength of 40MPa after 28 days with maximum aggregate size of 20mm</i></p>																														
	<table border="1"> <thead> <tr> <th>Requirement (BS 8500)</th> <th colspan="5">Schedule</th> </tr> <tr> <td></td> <td>Piles</td> <td>Pilecaps</td> <td>Crosshead Beam, Diaphragm Beam, Piers, Abutment and Wing Walls</td> <td>Deck Slab</td> <td>Precast Y and YE Beams</td> </tr> </thead> <tbody> <tr> <td>*Intended Working Life of Structure</td> <td>120 Years</td> <td>120 Years</td> <td>120 Years</td> <td>120</td> <td>120 Years</td> </tr> <tr> <td>*Nominal Cover to reinforcement</td> <td>70mm</td> <td>70mm</td> <td>55mm</td> <td>Top 35mm Soffit 45mm</td> <td>Top 35mm Soffit 45mm</td> </tr> <tr> <td>*Applicable Exposure Classes (Excluding DC-class)</td> <td>XC2</td> <td>XC3/4</td> <td>XC3/4, XD1</td> <td>XC3/4, XD1</td> <td>XC3/4, XD1</td> </tr> </tbody> </table>	Requirement (BS 8500)	Schedule						Piles	Pilecaps	Crosshead Beam, Diaphragm Beam, Piers, Abutment and Wing Walls	Deck Slab	Precast Y and YE Beams	*Intended Working Life of Structure	120 Years	120 Years	120 Years	120	120 Years	*Nominal Cover to reinforcement	70mm	70mm	55mm	Top 35mm Soffit 45mm	Top 35mm Soffit 45mm	*Applicable Exposure Classes (Excluding DC-class)	XC2	XC3/4	XC3/4, XD1	XC3/4, XD1	XC3/4, XD1	
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S/No	Issue/Questions					Clarification/Responses	
	<sup>Δ</sup> Compressive Strength Class of Concrete	C32/40	C40/50	C40/50	C40/	C50/50	
	<sup>Δ</sup> Minimum Cement Content (kg/m <sup>3</sup> )	320	360	380	380	380	
	<sup>Δ</sup> Maximum Free Water/Cement Ratio	0.55	0.45	0.40	0.4	0.40	
	<sup>Δ</sup> Required Group or Type and Class of Cement or Combination (where a DC-class has not been specified)	Any excl. Comb IVB	Any excl. Comb IVB	Any excl. Comb IVB	Any excl. Comb IVB	Any excl. Comb IVB	
	<sup>Δ</sup> Maximum Aggregate Size, mm	20	20	20	20	20	
	Maximum Cement Content (kg/m <sup>3</sup> )	500	500	500	500	550	
	Air Entrainment Required [ES/NO]	No	No	No	No	No	
	Minimum or Maximum Temperature of Fresh Concrete °C	5 to 30	5 to 30	5 to 30	5 to	5 to 30	
	Sampling and Testing	Yes	Yes	Yes	Yes	Yes	
15.	Drawing B1804-08-BR-0135 specifies a Crosshead beam concrete strength of C50/20, which conflicts with the requirement in technical specification section 6404 for C40/50. Please clarify which standard should be followed.					<p><i>There is no conflict as both specify the same concrete class 50. Drawing No. B1804-08-BR-0135 refers to abbreviation used in the SSRW 2000 while according to BS 8500 the same class is abbreviated as C40/50 in which the first figures are for characteristic cylinder crushing strength of 28 days and the last figures are for cube crushing strength</i></p>	
16.	Drawing B1804-08-BR-0160 indicates a Deck slab and diaphragm beam concrete strength of C50/20, which conflicts with the requirement in technical specification section 6404 for C40/50. Please clarify which standard should be followed.					<p><i>There is no conflict both defines concrete grade 50. C50/20 denotes Grade 50 as per SSRW 2000 and C40/50 denotes Grade 50 as per BS8500.</i></p> <p><i>Please refer Clarification No. 15 above for similar case</i></p>	

S/No	Issue/Questions	Clarification/Responses													
17.	<p>About BOQ item 66.11(i), which mentions "Elastomeric bearings reinforced with steel layers, fixed or sliding types given in drawings," please provide specific details regarding the unidirectional or bidirectional distribution and model of the Elastomeric bearings. Your early response is highly appreciated.</p> <table border="1" data-bbox="316 450 938 609"> <thead> <tr> <th data-bbox="316 450 384 481">66.11</th> <th data-bbox="389 450 751 481">Bridge Bearings</th> <th data-bbox="756 450 804 481">Unit</th> <th data-bbox="809 450 938 481">Qty</th> </tr> </thead> <tbody> <tr> <td data-bbox="316 488 384 566">(i)</td> <td data-bbox="389 488 751 566">Elastomeric bearings reinforced with steel layers, fixed or sliding types given in drawings;</td> <td data-bbox="756 488 804 566"></td> <td data-bbox="809 488 938 566"></td> </tr> <tr> <td data-bbox="316 573 384 602">(a)</td> <td data-bbox="389 573 751 602">Vertical Load Capacity: 2800 kN</td> <td data-bbox="756 573 804 602">No</td> <td data-bbox="809 573 938 602">520</td> </tr> </tbody> </table>	66.11	Bridge Bearings	Unit	Qty	(i)	Elastomeric bearings reinforced with steel layers, fixed or sliding types given in drawings;			(a)	Vertical Load Capacity: 2800 kN	No	520	<p><i>Regarding displacement and rotation refer to parameters provided in Drawing No. B1804- 08-BR-0190.</i></p> <p><i>Arrangement for fixed and sliding bearings shall be as instructed by the Engineer during construction</i></p>	
66.11	Bridge Bearings	Unit	Qty												
(i)	Elastomeric bearings reinforced with steel layers, fixed or sliding types given in drawings;														
(a)	Vertical Load Capacity: 2800 kN	No	520												