CORRIGENDUM- V

Name of work: Design and Construction of Viaduct in Reach-3 between Jhansi Rani Square and Lokmanya Nagar Stations from Ch 7825m to 18212 m on the East-West Corridor of Nagpur Metro Rail Project.

Tender no (As per NMRCL): N1C-08/2016
Date: 15/06/2016
Tender no (As per portal): 44

Sl. No	Page/ Section No	Clause No	Description	Existing Provisions	Queries/ Requests	Clarification / Amendments
1.	Section VIII	Clause 13.8, Part A-Contract Data	Adjustment for Changes in Cost	Refer PC Part B	Request you to provide the relevant data under the SCC (Part-B)	The relevant data is already provided under SCC (Part-B) Sr. No. 53.
2.	Section VIII	GCC 13.8	Price Variation	The price variation will be payable only on the Indian currency component (no adjustment for foreign currency component) of the Contract Price for Schedule B- 1 only of Price Bid as per the following price variation formula	The Nagpur Metro Rail Project is a capital intrinsic Project which is scheduled to be executed in 110 weeks. In order to enable the Tenderers to submit competitive bids it is imperative that the Tender document should provide for adjustments for changes in cost for the entire Contract Price. The contract BOQ contains Schedule A and Schedule B. Schedule A pertains to lumpsum component of the permanent works and accordingly the same will account for major costs under contract price. Schedule B pertains to miscellaneous works only.	Request cannot be acceded to

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					The provision that the price variation will be payable for Schedule B-1 only will result in speculative bidding. Therefore, in order to avoid speculative bidding and enable the Tenderers to quote most competitive price we request you to provide for adjustment on the total Contract price.	
3.	Page 10 of 37 Corrigendum-II	Sl.No 23	Pier Arms for Platform	The present RFP includes pier arm for the stations both at platform level as well as concourse level. It means the foundation, pier and pier arm of the station area are to be designed and constructed, taking into account station load. A typical cross section and size of pier arm is enclosed along with this Corrigendum. The contract includes station piers @ approx. 15.5m span making total station length as approximately 78m.	From Drawing Ref:06_CONGRESS NAGAR_CROSS SECTION-23.04.16 new drg.dwg it is understood that the pier arms are cantilever type both at Platform and Concourse level. Hence please confirm that the following condition (Part-II, Section-VII/Page 170 Cl 2.A Work Requirement & Appendices (Scope of Work) C: Piling for Concourse of Stations) hold good? Piling for foundation of concourse of stations up to pile cap level. Contractor will leave reinforcement for future concreting of pile cap. Station pile/ pile cap drawings will be provided to successful tenderer during execution. Reasonable assumptions should be made by the tenderer at this stage. (Item is payable separately under schedule B 1). Design & Construction of all kind of foundations pertaining to viaduct portion (Even in	We confirm that in RFP, Schedule A covers pier arm for station both at Platform level and Concourse level. It means the foundation, pier and pier arm of the viaduct at station area are to be designed and constructed, taking into account station load. The contract includes station piers @ approx. 15.5m span making total station length as approximately 78m.

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					Station Area) is in scope of Lump sum D&B. Pile/Pile cap layout drawings of stations to be operated in BOQ shall be provided to successful bidder. The clause is contradictory too and hence confirm If works of station foundation and cross-arms is in the scope of the viaduct contractor whether that has to be under Schedule-A or Schedule-B1.	
4.	Part-II,Section-VII / Pg-171	Cl:2.A) Work Requirement & Appendices (Scope of Work)	Pier Arms for Platforms	D & B contractor will have to design and construct pier arm to support the station platform beams and Deck slab also in addition to structures required for taking viaduct through the station portion in a station length of 142 m. Station length is 70m extendable up to 142m in future. Details of station portion will be furnished to the successful bidders, suitable assumptions maybe made. The GAD is enclosed with this document to facilitate the design of support structure taking into account the prevalent code, manual and best practices. It may be noted that station support structure will have to confirm to the acceptable deflection and vibration norms and the viaduct spans will be constrained in terms of span. The location of piers and the span arrangements suggested by the contractor have to be got approved by the Engineer before execution. The contractor shall not have	Given information will be insufficient to arrive at Station scope. There is no mention of DBR for Stations. Since the scope is to design Pier arms at platform and concourse level and pier and pier foundation its essential to get a design guideline for stations (i.e. Codal provisions on design methodology). Also request to provide the spacing of roof portal for which 15MT is considered for both sides of cantilever pier arm.	Station DBR is attached for guidance. Further Roof Portal spacing may be considered between 5m to 6m for calculation of station load.

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				any claims if any changes are suggested by the engineer. Following loads should be considered for designing the pier arm which will support station platform beam and deck slab also i) Floor loads, viz., self-weight, Live load of 5 kN/sqm. ii) Staircase loads – will be furnished after freezing the station concept plans. iii) Escalator support loads – 15MT each. No. of escalators will be furnished after freezing the station concept plans. iv) Connecting bridge support beam loads – be furnished after freezing the station concept plans. v) Roof column loads – Approx. 15 T each. Will be confirmed after freezing the station concept plans. vi) I girders / Beams will be seated on the extended pier arm.		
5.	Corrigendum -1	Drawing No RITES/ UT/ CO/ Nagpur/ IC/			For the loop line beyond Lokmanya Nagar Station, vertical clearance from Ch. +18.125 to Ch. +18.250 while crossing the road below main line, towards Hingna depot does not meet the minimum requirement. Please advise what should be done.	You may consider information given in RFP as correct.

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		EW/ SB-LN/2015				
6.	Corrigendum -1	Annex-1 & Annex-2			Vertical alignment wasn't presented for " London Street Metro Link scope". Shall we assume same rail level for the loop line deviating from Main line?	Yes. Rail level for 'London Street' may be taken at same level as main line.
7.	Part-II, Section VII, Page 174	xxvi		The superstructure type at station location shall be same as viaduct in other than station locations. The span arrangement maybe 15-16 m approximately. Exact inter-distance shall be decided at detailed design stage in consultation with DDC of station buildings.	From this clause we understand that Viaduct in station is box girder and pass through. Please confirm our understanding is correct.	Yes, your understanding is correct.
8.	Part-II, Section VII-A, Page 408	8.3.2	Cement	The cement to be used for piling and all foundation work shall be conforming to following Indian Standard Specifications: IS: 455 Specification for Portland slag cement	The availability and lead for Portland Slag Cement is limited. Please consider use of OPC 53 Grade cement with appropriate mix design.	It shall be considered at the time of execution of work.
9.	Corrigendum-1& 2	Drawings			The drawings issued vide Corrigendum-1 & 2 is in AutoCad Format. The same cannot be digitally signed. Please confirm if they could be converted to pdf, digitally signed and uploaded during the submission.	You will need to upload drawing even if it is not digitally signed.

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10.	Part-I, Section-IV, Bidding forms / Page 89	5.4 Form FIN-3.1	Financial situation and performance	If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified	There is a contradiction in financial statement between Part-1, E&QC, Page-60, 3.1) (iii) and Part-I, Section-IV, Bidding forms - Page 89, 5.4 Form FIN-3.1. Please confirm the bidder has to submit the financial statements for last five year i.e. FY 2010-11, 2011-12, 2012-13, 2013-14, 2014-15.	Yes, your understanding is correct.
11.	Part-I, Section-III, E&QC, Page 64	5. Personnel		Design Engineer/Structural Engineer/Geo-technical Engineer	The requirement for Design Engineer / Structural Engineer / Geo-technical Engineer is repeated in point no. 5 & point no. 12. Request you to delete point no. 12	Corrected.
12.	Part-I, Section-III, E&QC, Page 64	5. Personnel		Minimum requirement	Please provide the Minimum requirement of each personnel.	Provided at attached annexure below.
13.	GAD	GAD No: 20160524 Revised	GAD Reach-3 R01. Dwg () Sheet 09	Branching out of Track after Ch. 13907.336 & continuing after 14000.00 (for future line of JP Nagar/ London Street/ Metro Link)	The scope at the interface with future line for JP Nagar/ London Street Metro Link between chainage 13900 to 14100 is not clear. It is also not clear that after the branching out of track, what length the branch would be continued in this scope of Tender and what shall be the arrangement required at the end point of it.	The bidder need to design and provide viaduct (approximately three span of 25 m each) at this location which will accommodate "1 in 9 crossover" for "London Street".
14.	Section	Cl. 2.1.2	Scope of	..... However contractor can propose alternate sections keeping overall	In tender drawings only shape of box girder with integrated parapet is	Segmental Box dimension are

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	VII	(ii) of work requirement and appendices	Work	dimensions of the superstructure as indicated in tender drawings.	shown without any dimensions. Kindly arrange to provide the dimensions of box girder section.	attached.
15.	Page 64		Special Notes	The JV/Consortium member having past experience which includes metro rail viaduct construction should be the Lead Member in proposed JV/Consortium.		The existing clause at Sr. No. 2 in the Special Notes mentioned on Pg. 64 stands modified as: "The JV/Consortium member having past experience which includes metro rail viaduct construction should be the Lead Member in proposed JV/Consortium. The percentage share of the lead member in this JV/ Consortium should be minimum 40 %."
16.	GAD			GAD from Subhash Nagar to Ambazari Station		The Rail level between the stations Subhash Nagar & Ambazari from Chainage 12856.232 m to Chainage 12294.828 is to be considered as 13.5 m from ground level. The piers between the chainages shall be designed to support a pedestrian walkway of width 8m. The RFP includes construction of intermediate Pier caps which will

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						support this walkway. Cost of walkway is not to be considered in present RFP
17.	Section III	EQC 4.2 (c);		The bidder must agree to deploy at least two key personnel having Environment expertise of minimum ten years in sites management measure and the Second one in social works with min. 10 year experience.	There is an ambiguity in the two clauses mentioning the experience requirements of EHS personnel's. Kindly confirm what experience requirements are to be considered.	Revised clause is, "Contractor to deploy at least two key personnel having Environment expertise of minimum five years in designing and monitoring EHS work sites management measure and the second one in health and safety expert of minimum five years' experience in designing and monitoring EHS work sites management measures."
	Section IV			Is the Bidder ready to deploy at least two key personnel having Environment expertise of minimum five years in designing and monitoring EHS work sites management measure and the second one in health and safety expert of minimum five years' experience in designing and monitoring EHS work sites management measures?		
18.	Corrigendum - II, Sr. No. 23			The present RFP includes pier arm for the stations at platform level as well as concourse level	What type of structure (cantilever 'or' simply supported) for concourse level pier arm? What loads are to be considered? What is the length of concourse level & how many pier arms for this length/spacing of pier arms? Please provide drawings of station plan at ground level, concourse level.	Concourse level pier arm is cantilever type. For calculation of load we attach herewith, Design Basis Report applicable to stations. Length of concourse is 78m and piers are placed @ 5.5m spacing. These piers (6 Nos. for each station) will have pier arm at platform level as well as at concourse level.
19.				Scope of Station Pier Arms	We notice that scope of construction	The detailed reply may be referred

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					of pier arm at concourse and platform level is included in both Viaduct package (This RFP) and Station Package (Tender No - N1C07/2016). We request you to delete the scope of pier arm at concourse level from Viaduct package. Viaduct contractor will build the pier upto Pier cap level leaving suitable reinforcement couplers at concourse level. Station contractor will join the reinforcement and construct concourse level pier arm. This practice is generally followed in other metro projects (Mumbai Metro). Alternatively bidder may be allowed to indicate separate amount for construction of pier arm at concourse level, which shall not be part of Lump sum contract price under this RFP.	at Sr. No. 18 & 24
20.	Work requirements		Bearings for 31 m and above span	Bearings for 31m & above spans shall be POT PTFE.	Can elastomeric bearing be considered at locations other than special span locations?	Yes
21.					Depot line - the depot line is shown in alignment drawing (file name: Sheet No. 15- 18.03.2016.dwg in Corrigendum- I) between ch. 17825.000 and ch. 18358.649. The	Yes, depot line is also a part of present lumpsum contract.

Sl. No	Page/ Section No	Clause No	Description	Existing Provisions	Queries/ Requests	Clarification / Amendments
					depot line goes parallel to main line and then crosses under the main line and enters the depot area. There is no mention of the depot line in the scope of works as per clause 2 of Section B Employer's requirement - functional, Part-II, Section- VII of the tender document. Please clarify and confirm that depot line is in the scope of work.	
22.					Ramp - Ramp is mentioned in the scope of works as per clause 2 of Section B Employer's requirement - functional, Part-II, Section- VII of the tender document. However, in the drawing (file name: Sheet No. 15 - 18.03.2016.dwg) the extent of ramp is not shown after the depot line. Please clarify and confirm if the ramp is in scope of works and what length. This needs to be marked with chainages in drawings also.	No, ramp is not a part of present RFP.
23.					Viaduct through station - refer to Corrigendum -3 response to prebid queries Serial No 4- NMRC responded that box girder will pass though the stations. However, the type 1 drawings provided in Corrigendum-I (file name: 06_CONGRESS NAGAR_CROSS SECTION-23.04.16 new drg) shows the 'I' girders support the	The drawing is not ready. However, we confirm that box girder passes through the stations.

Sl. No	Page/ Section No	Clause No	Description	Existing Provisions	Queries/ Requests	Clarification / Amendments
					tracks within the station. Please clarify and confirm whether we need to provide 'I' girders in the stat ion t rack area or box girders need to be provided. Please provide drawings accordingly.	
24.					Length of stations - the stat ion length is 70m and extendable up to 142m as per clause 2B of Section B Employers requirement - functional, Part-II, Section- VII of the tender document. This means in our scope all the piers over this 142m length will have pier caps at two levels at rail level and concourse level. The station construct ion will be for 70m now which means the remaining 72m of the station lengths the piers will have pier caps at concourse level without any concourse slab and extended pier caps carrying tracks without any platform slab. However, refer to Corrigendum-II response to pre-bid queries Serial No 23 - NMRC stated the stat ion length is 78m in this contract. Please clarify and confirm whether two levels extended pier arms shall be provided for 142m or 78m.	We confirm that two level pier arm is limited to 78m only i.e., applicable to 6 piers at each station location.
25.	Maximum Long Welded Rail (LWR) force after combining forces due to rail breaking and temperature difference with 10 % dynamic augment shall be taken as 13.2 kN/m for two track viaduct.					

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26.	The tie rod attachment of S1 segment (Pier Segment) with concrete shear key shown in the tender drawing may be treated as deleted.					

Modified Requirement for Personnel

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

No.	Position	Qualification	Minimum Nos. to be Deployed	In Similar Works Experience (years)
1	Chief Project Manager (Team Leader)	Graduate / Diploma in Civil Engg.	1	Minimum total experience of 15 years out of which, minimum 03 years as In- charge of similar works
2	Dy. Project Manager (Casting Yard & Site Works)	Graduate / Diploma in Civil Engg.	3	Minimum total experience of 10 years for degree and 12 years for diploma out of which, minimum 03 years as In- charge of similar works
3	Dy. Project Manager (Launching)	Graduate in Civil Engg. / Diploma in Civil Engg./ Mech Engg.	2	Minimum 10 years in field of launching and crane working out of which minimum 3 years should be of launching work
4	Quality Assurance (QA)- Engineer	Graduate in Civil Engg. / Diploma in Quality Assurance	1	Minimum total experience of 10 years out of which minimum 05 yrs. in QA (field) and at least one year as In-Charge.
5	Design Engineer/Structural Engineer/Geo-technical Engineer	Graduate/Diploma in concerned Disciplines	1 each	Total minimum experience of 05 years out of which minimum 03 years of experience in relevant field.

6	Planning Engineer	Graduate/Diploma in Civil Engg. With knowledge in MS project/Primavera software	1	Total Minimum experience of 10 years out of which minimum 3 years in Planning of projects.
7	Safety Manager	As per SHE Manual	As per SHE Manual	As per SHE Manual
8	Civil Engineer	Graduate or Diploma in Civil Engineering	8	Minimum 5 years for Degree & 8 years for Diploma
9	Electrical engineer	Graduate in Electrical Engg. / Diploma	3	Minimum 5 years for Degree & 8 years for Diploma
10	Mechanical Engineer	Graduate in Mechanical Engg. / Diploma	1	Minimum 5 years for Degree & 8 years for Diploma
11	Experts on Environmental, Social, Health & Safety	Graduate in Environmental Sciences and Graduate in Sociology.	2	Should have minimum 10 years of experience out of which minimum 5 Years of Experience in similar Metro Rail / Highway / Airport development projects.
12	Project Management Engineer	Graduate in Civil Engg. / Diploma in Civil Engg.	1	Minimum experience of 5 years and should be expert in AutoCad & project management software. Preferably 5D BIM specialized

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