General Bid Bulletin No. 17
13 July 2021

IFB No. 21-031-4

THE MALOLOS-CLARK RAILWAY PROJECT AND THE NORTH SOUTH RAILWAY PROJECT-SOUTH LINE (COMMUTER) PACKAGE CP NS-03: ROLLING STOCK-LIMITED EXPRESS TRAINSETS

This General Bid Bulletin is issued to amend/clarify certain provisions in the Bidding Documents for the abovementioned project. Please refer to the attached Annexes of this General Bid Bulletin duly approved by the end-user and co-implementer for details:

1. **Annex "A"** –Answers to Queries from Prospective Bidders including clarifications to the Bidding Documents;

2. **Annex "B"**– Revisions to the Bidding Documents; and

3. **Annex "B – 1"** – Revised pages/amendments and final form as revised/amended.

All other portions of the Bidding Documents affected by these revisions, amendments and/or clarifications shall be made to conform to the same.

Revisions/amendments/clarifications made herein shall be considered an integral part of the Bidding Documents for this project.

For your information and guidance.

For the Bids and Awards Committee IV:

SIGNATURE REDACTED

JOSEPH CONRAD D. DUEÑAS
Chairperson

Annex A

PACKAGE CP NS-03: ROLLING STOCK - LIMITED EXPRESS TRAINSETS
General Bid Bulletin No. 17
Annex A

Item No.	Volume Section No. Page No. Clause No. / Title Reference Text	Clarification Request	Proposed Revised Text (if any)	Response
1.	Volume II of III Part 2 - Employer's Requirements ERT-38 3.2.4.1	The bogies shall be designed to enable the safe operation of the vehicles on the most adverse track condition, with any combinations of air springs deflated. Under this condition, the maximum unloading of any wheel shall not exceed 60% of the nominal wheel load. The nominal wheel load is defined as each individual measured wheel load with the vehicle standing on a straight and level track. Refer to ERT section 1.7 for the track standards. Could you please define the most adverse track condition characteristics? It is understood that the maximum transition gradient in a curve is 1/300, but which are the maintenance limits for long and short twist irregularities?	N/A	This requirement means decrease ratio of wheel load. Generally, this happen at the curved section, especially transition curve. Bidder can find the most adverse track condition in Bidding document alignment. Then, bidder can simulate the decrease ratio of wheel load in most adverse track condition.

2.	Volume II of III Part 2 - Employer's Requirements ERT-171 Appendix C	Gauge in relation to parts that do not move vertically due to action of bogie spring The tenderer understands that bogie spring refers to bogie air spring. Thus, the bogie frame, brake callipers or traction motors have to comply with the H11 (50 mm) gauge dimension. Please, confirm if the understanding is correct.	Gauge in relation to parts that do not move vertically due to action of bogie **air** spring.	Bidder's understanding is not correct. Bogie spring means all related bogie spring, that is, at least it includes primary suspension and secondary suspension which are mentioned in ERT 3.2.2 and 3.2.3. The parts over primary suspension shall not be recognized as ' not move vertically due to action of bogie spring'.
3.	Volume III Particular Conditions - Part A (Contract Data) PC-6 14.9 Relevant Percentage Weighting for Release of Retention for each Section	*For the purposes of this Sub-Clause: (i) the word 'Section' shall be deemed to refer to the elements of work identified in 'Table 1 – Key Dates' shown in Attachment 1 hereto, and (ii) the relevant percentage for each such Key Date ('Section') shall be as follows:*	N/A	The bidder's request is rejected. The Conditions of Contract shall prevail.

	Section VII. General Conditions GC-62 14.9 Payment of Retention Money	<table><tr><th>Section</th><th>Element of Work</th><th>Percentage Weighting</th></tr><tr><td>KD 6</td><td>Delivery of 7 trainsets (1-7) and completion of testing and commissioning thereof plus handing over.</td><td>70%</td></tr><tr><td>KD 8</td><td>Completion of Trial Operation support and the whole of the Works.</td><td>20%</td></tr><tr><td>Defects Notification Period</td><td>Completion of Defects Liability for the last trainsets</td><td>10%</td></tr></table> (a) If the Performance Security required under Sub- Clause 4.2 is in the form of demand guarantee, and the amount guaranteed under it when the Taking-Over Certificate is issued is more than half of the Retention Money, then the Retention Money guarantee will not be required. If the amount		

		guaranteed under the Performance Security when the Taking-Over Certificate is issued is less than half of the Retention Money, the Retention Money guarantee will only be required for the difference between half of the Retention Money and the amount guaranteed under the Performance Security. Please consider the option of replacing the Retention Money on each Invoice by a Retention Money Guarantee for the same amount. This Retention Money Guarantee will be released in the same percentage as the Retention Money would be released (i.e. KD6: 70%; KD8: 20%; Defects Notification Period: 10%).		

		In any case and according to Clause 14.0 of Section VII. General Conditions, if the Performance Security required under Sub-clause 4.2 is in the form of a demand guarantee, and the amount guaranteed under it when each Section is achieved is more than half of the cumulative Retention Money, then the Retention Money Guarantee will not be required. If the amount guaranteed under the Performance Security when each Section is achieved is less than half of the cumulative Retention Money, the Retention Money guarantee will only be required for the difference between the cumulative Retention Money and the amount guaranteed under the Performance Security.		
4.	Volume I of III Part 1 – Bidding Procedures Section II. Bid Data Sheet BDS-5 ITB 18.7 2. (i)	(i) VAT: VAT registered suppliers and subcontractors of the Japanese companies, shall bill and pass on the twelve percent (12%) to the Japanese companies / contractors. In turn, the Japanese contractors shall include in their billing and pass on the 12% VAT to the	N/A	Reference to the RMC No. 8-2017, the Japanese Contractor shall file the VAT. VAT will not be taken into consideration during price evaluation. VAT is to be add in on as a direct amount at the rate of 12% (in accordance with the Laws of the Republic of the Philippines) on the total local currency (PHP) amount where

	Volume II of III Part 2 – Employer's Requirement BF-49 GRAND SUMMARY Note: 3) Section VI. Employer's Requirement Technical Requirement	Employer. **Therefore, VAT, except VAT on imports, shall be incorporated into the Local Unit Prices (PhP) and Local Amounts (PhP) of the Bid Price.** 3) The Value Added Tax (VAT) for the Foreign Currency portion shall be converted to the Local Currency according to ITB 37.1 and added to the VAT for the Local Currency portion. Please confirm that the sentences described in the Note 3) of the Grand Summary as "VAT for the Foreign Currency portion shall be converted to the Local Currency and added to the VAT for the Local Currency portion." is just for the purpose of Evaluation and Comparison of Bids, and VAT for Foreign Currency portion will not be paid actually.		foreign currency will be converted to the local currency amount before the VAT is added in.
5.	GBB3 Appendix A 9/15 Item 7	(The Employer's Clarification) 4) The bidder's understanding is not correct. "Capital Spares" means those items which are expected to remain in operation and not require replacement until well beyond the end of the 2-year O&M period and which, because of the length of time it would take	N/A	The bidder's request is rejected. Please refer to the Part 2 Section VI Employer's Requirements, Technical Requirements clause 24.4.3.

		to get a replacement for such items, could cause a prolonged shutdown if they had to be replaced. The provision of these items is not included in the Accepted Contract Amount and, if required, shall be ordered by the Employer under separate purchase orders not forming part of the Contract. The applicable purchase rates shall nonetheless be those committed to by the Contractor under this Contract, which rates shall remain valid for a period of one year after the end of the Defects Notification Period. The Bidder would like to ask the Employer reconfirmation of the statement that "Information to be provided in the Schedule is only for reference" on Part 1 – Bidding Procedures, Section IV – Bidding Forms – Schedule 1.7, as there might be inconsistency with 2nd paragraph of this the Employer's clarification and no one can commit spare parts price for a period of one year after the end of the Defects Notification Period (around 9 years in this project). The Bidder proposes to tie the Spare Parts Prices to the same		

		Price Adjustment as outlined in Schedule 2 “Table of Adjustment Data” of Part 1 Bidding Procedures, Section IV Bidding Forms.		
6.	GBB7 Appendix A 16/29 Item 17	(The Bidder’s Question) The Bidder would like to ask the Employer’s reconsideration. Especially under COVID-19 situation, it is more difficult to make revision or replacement of bid proposal at the last moment. In order to avoid unnecessary error or inconvenient, please allow the Bidder’s to add page number for each document but not consecutive one. (The Employer’s Clarification) The Bidder’s request is rejected. Every pages of the submission shall be numbered in sequence (consecutive) and the Bidder shall include the page number in the “Page” column. This is to ensure the completeness of the submission according to the index. The Bidder humbly asks the Employer to reconsider the Bidder’s request as it makes significant impact for the Bidder’s bid preparation.	N/A	The bidder’s request is rejected.

		Please also consider current Bid Submission Date is highly challenging target as the Bidder makes longer request for extension, and under COVID-19 situation flexibility and window time under bid preparation is much limited than normal situation. It makes additional difficulties for the Bidder to complete bid preparation in line with current Bid Submission Date. The Bidder also assure, completeness of submission can be well demonstrated by File No, Section No and page No of each section.		
7.	GBB10 Appendix A 23/28 Item 40	(The Bidder's Question) The quantities described in this table for the Equipment for Driving Simulator are defined as 1 set. Please confirm that 1 set means 1 complete unit of each related equipment and not 1 train set. (The Employer's Clarification) Please refer to item 6 GBB 7 dated 12th May 2021. The list of equipment shall not be limited to the table in clause 27.1.1 and it is the Contractor obligation to	N/A	Please refer to response provided in GBB No. 16 related to the part for simulator.

		interface with CP NS-01 Contractor and adjust the amount based on Interface agreement. The unit 'set' denotes the required quantity for a driving simulator build requirement based on the bidder general and specific experience delivering a similar project with this tender. The Bidder understands, driving simulator is fully customer made products and cannot estimate quantity of equipment required in NS03 contract at the time of bidding. Moreover, as the Bidder assume design of driving simulator is fully depended on the discussion between the Employer and NS01 contract, and therefore the Bidder cannot accept responsibility of quantification. Please provide required quantity information for each parts.		
8.	Part 1 – Bidding Procedures Section IV – Bidding Forms BF41 Schedule 1.4 : Transportation, On-Site Assembling and Testing	403 Completion of Trial Operations, comprising 1500 km Fault Free Running for all 7 trainsets. In respect of provision under ERG 8.1.8 "….. achieves 1,500 km of Fault-Free Running (FFR) during the integrated testing and commissioning.", the Bidder would	403 Completion of ~~Trial Operations, comprising~~ 1500 km Fault Free Running <u>during Integrated Testing and Commissioning</u> for all 7 trainsets.	Please see Annex B for the amendment.

		request the Employer to revise this Price Schedule as shown in the next column.		
9.	Part 2 – Employer's Requirements Section V1. Employer's Requirements General Requirements ERG 72 ERG 12.1.9	The cost to provide water and other services including train operation personnel (train operators and rolling stock personnel) required for inspection, testing and commissioning including integrated testing and commissioning and trial run shall be borne by the Contractor. Train operator and associated rolling stock personnel required for all Interfacing Contractors will be provided by the CP NS-03 Contractor as required for the completion of testing & commissioning.	N/A	Any additional inspection/testing which is deemed required for the Contractor to demonstrate their obligation under this contract, regardless encountered by the Employer, Engineer, the Contrator himself or any project stakeholders; shall be identified as a 'change' in the Contractor's project implementation plan. Any additional inspection/testing will form as part of the validation and verification process which should be demonstrated by the Contractor. Bidder should have account the risk of inadequate of validation/verification which might be encountered during the project implementation. The Provisional sum shall only be used, in whole or in part, in accordance with the Engineer's instructions, and the Contract Price shall be adjusted accordingly (13.5 GC). In case of the said risk has realized, the Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts
	Part 2 – Employer's Requirements Section V1. Employer's Requirements Technical Requirements ERT 125 ERT 20.2.1.3	The Contractor shall responsible to provide sufficient train drivers for all the testing and commissioning activities until handing over. The Bidder can estimate required cost only for testing & commissioning of Limited Express Train. And therefore the Bidder would like to ask the Employer's confirmation that any cost relates to train driver for additional testing which NS03 can reasonably justify that i) not attributed to NS03		

		Contractor's fault ii) purely required for the testing and commissioning of other contractors, shall not be the NS03 Contractor's account. Otherwise, the Bidder would propose to utilize Provisional Sum amount for fairness.		or receipts in substantiation. (13.5 GC)
10.	Volume II/III - Part 2 Section VI ERT Chapter 6.1 Clause 6.1.2 202/355 (ERT-57) Lighting - General	The Contractor shall ensure all lighting fulfills the mandatory requirements of EN 13272 Railway applications - Electrical lighting for rolling stock in public transport systems, JIS E4016 – Illuminance for Railway Rolling Stock – Recommended levels and measuring methods (or other equivalent standards), even when the lights have been used for 40,000hours. And the average illuminance shall be more than 300 lux over the saloon area on the height of 0.85 m above the floor level after delivery completed. The required light intensity shall provide a comfortable and pleasing visual environment and not disturb the passengers. The Bidder ask therefore the requirement as proposed.	The Contractor shall ensure all lighting fulfills the mandatory requirements of EN 13272 Railway applications - Electrical lighting for rolling stock in public transport systems, JIS E4016 – Illuminance for Railway Rolling Stock – Recommended levels and measuring methods (or other equivalent standards), even when the lights have been used for 40,000hours. ~~And the average illuminance shall be more than 300 lux over the saloon area on the height of 0.85 m above the floor level after delivery completed~~. <u>The lighting intensity shall meet the safety requirement, provide comfortable and pleasing visual environment.</u>	Bidder request is rejected. Please see Annex B.

11.	Volume II/III - Part 2 Section VI ERT Chapter 7.1 Clause 7.1.14 206/355 (ERT-61) Passenger door - Opening/closing times	Doors shall fully open within 2.0 to 2.5 s of the door open command and shall fully close within 2.5 to 3.0 s of the door close command. A single leaf sliding plug doors has the following opening as well as closing times: 3.5 ± 0.5s. Therefore, the Bidder requests a modification to the requirement. Compared to a MRT or Commuter type service which is stopping at every station, a shorter opening and closing time may have a relevance, For a Limited Express type of service which is not stopping frequently the 3.5s door opening and closing time is state of the art solution. The better air tightness properties of a single leaf sliding door is by far more important for the comfort of passengers.	Doors shall fully open within 2.0 to ~~2.5 s~~ 3.5 s of the door open command and shall fully close within 2.5 to ~~3.0 s~~ 3.5 s of the door close command.	Bidder request is rejected. The Clause was updated and please refer to GBB No. 16.
12.	Volume II/III - Part 2 Section VI ERT Chapter 7.3 Clause 7.3.17 209/355 (ERT-64) Passenger door - Opening/closing times	Door closing or opening time shall be adjustable between two and five seconds. A single leaf sliding plug doors has the following opening as well as closing times: 3.5 ± 0.5s.	N/A	Confirmed.

		Please confirm that the door closing or opening time can be adjustable between 3.5 and 5 seconds.		
13.	Volume II/III - Part 2 Section VI ERT Chapter 14.4 Clause 14.4.3 236/355 (ERT-91) Auxiliary Electrical Systems - Maintenance Requirements	Means shall be provided to automatically discharge capacitors whose voltage might present a hazard to a maintenance worker opening any enclosure. Discharge time shall not be more than 5 minutes. A discharging time of only 5 minutes is related to elevated losses and not seen as necessary in the maintenance process time. The Bidder strongly suggest to increase the discharging time from 5 to 15 minutes. This is a proven solution in Europe.	Means shall be provided to automatically discharge capacitors whose voltage might present a hazard to a maintenance worker opening any enclosure. Discharge time shall not be more than ~~5~~ 15 minutes.	Bidder request is rejected.
14.	Volume II/III - Part 2 Section VI ER6 Chapter 7.10 Clause 7.10.10.2 62-63/355 (ERG-45-46) Software Management and Control - Security Obligations	The access to the above-mentioned escrow account shall be given to the Employer for him to translate or modify the software in case of: 1) The owner of the software becomes insolvent or has a receiving order made against them or makes an arrangement or assignment or composition with or in favor of its creditors (including	The access to the above-mentioned escrow account shall be given to the Employer for him to translate or modify the software in case of: 1) The owner of the software becomes insolvent or has a receiving order made against them or makes an arrangement or assignment or composition with or in favor of	Bidder requests are rejected. Item 1) the Contaractor does not necessarily referring to the owner of software; 4) Unjustified refusal of assistance is only a subset of Contrator breach of contract obligations.

		the appointment of a committee of inspection) or goes into liquidation or commences to be wound up or has a receiver, liquidator, trustee or similar officer appointed over all or any part of its undertaking or assets or if distress, execution or attachment is levied on, or if another party takes possession of, any of its assets or any proceeding or step is taken which has an effect comparable to the foregoing in any relevant jurisdiction; or 2) The owner of the software ceases to trade; or 3) The owner of the software assigns copyright in the software and the Contractor fails within 60 days of such assignment to procure in favor of the Employer, a license from the new owner in the same terms as that required by the Contract; or 4) The Contractor is in breach of any of his obligations under the Contract. Requirement 1) holds the risk that the access of the escrow account will be given depending on the status of any part of the company and not only on the relevant part. Please allow for a change in	its creditors (including the appointment of a committee of inspection) or goes into liquidation or commences to be wound up or has a receiver, liquidator, trustee or similar officer appointed over ~~all or any part of its undertaking or assets~~ over the Contractor or if distress, execution or attachment is levied on, or if another party takes possession of, any of its assets or any proceeding or step is taken which has an effect comparable to the foregoing in any relevant jurisdiction; or 2) The owner of the software ceases to trade; or 3) The owner of the software assigns copyright in the software and the Contractor fails within 60 days of such assignment to procure in favor of the Employer, a license from the new owner in the same terms as that required by the Contract; or 4) ~~The Contractor is in breach of any of his obligations under the Contract.~~ The Contractors repeated unjustified refusal of assistance for repairs/modifications.	

		wording in order to mitigate the risk for the contractor. Requirement 4) holds the risk that the access of the escrow account will be given depending on the status of any breach of the contract also when breach does not give a reason for termination of the contract. Please allow for a change in wording in order to mitigate the risk for the contractor.		
15.	Volume II/III - Part 2 Section VI ERT Chapter 5.12 Clause 5.12.3 195/355 (ERT-50) Car Interior - Drivers Cab Windshield	The Cab windshield shall be bonded directly to the Carbody window frame. The design shall ensure that, in the event of breakage, sufficient visibility is maintained to operate the train safely for the remainder service. The Bidder assume that remainder service means travel until the next end station and if necessary with reduced speed. Please confirm.	N/A	Confirmed.
16.	Volume II/III - Part 2 Section VI ERT Chapter 7.3 Clause 7.3.6 207/355	Each pair of saloon doors shall be provided with interlock switches incorporated in the Door Control Circuit to prove that doors are closed. When the Door Control Circuit is not proven closed, train	N/A	Confirmed. Please refer to Annex B for the updates provided on clause 7.3.6, 7.3.7 and 7.5.

	(ERT-62) Doors and Door Control - Passenger Door, Operators and Controls	movement shall be inhibited. Saloon door interlock status shall then be interfaced to the TMS. Basically, status that obstacles that have less than 5mm thickness are sandwiched shall be also defined 'Closed'. But status that obstacles that have over 10mm thickness are sandwiched shall be not defined 'Closed'. For pneumatic type, re-open function only for 'Not closed door' shall be valid in this situation. Care shall be paid to equip diodes to appropriate positions so that mis-operation caused by energizing wires unintentionally, are not happened. The Bidder assume that a development of the saloon doors according to EN14752 will be considered as equivalent solution. Please confirm.		
17.	Volume II/III - Part 2 Section VI ERT Chapter 5.19 Clause 5.19.2.1- 5.19.2.6 200/355 (ERT-55) Cab Controls of Driver's Cab - Master Controller	In case of a stepless adjustable linear manner, the master controller features will at minimum: a. Coasting / neutral position: The centre position is notched. Traction is not applied; b. Traction: Pull lever forwards 0...100% of the path proportionally sets desired tractive effort;	In case of a stepless adjustable linear manner, the master controller features will at minimum: a. Coasting / neutral position: The centre position is notched. Traction is not applied; b. Traction: ~~Pull~~ Push lever forwards 0...100% of the path	Please see Annex B.

		c. Braking: Push lever backward, 0...100% of the path proportionally sets the braking effort; d. Emergency brake: Notched to prevent accidental triggering by the driver. The Bidder ask to change the lever function in braking and traction mode as proposed.	proportionally sets desired tractive effort; c. Braking: ~~Push~~ Pull lever backward, 0...100% of the path proportionally sets the braking effort; d. Emergency brake: Notched to prevent accidental triggering by the driver.	
18.	Volume II/III - Part 2 Section VI ERT Chapter 20.1.2.4 269/355 (ERT-124) Inspection holding points	If the inspection/test cannot be completed satisfactorily, the additional inspection/test attended by attendance will be arranged and the cost of attendance for such additional inspection shall be borne by the Contractor; Kindly add the respective wording to limit the exposure of Contractor to actual reasons caused / attributable to Contractor and not eventual other reasons which are not under the control of Contractor.	If the inspection/test cannot be completed satisfactorily, due to reasons attributable to Contractor, the additional inspection/test attended by attendance will be arranged and the cost of attendance for such additional inspection shall be borne by the Contractor;	Please see Annex B.
19.	GBB15 142/174 Table 20.2 Inspection Trips	76 trips → 40 trips Revised number of trip (40 trips) is inconsistent with other part of GBB15 (page 71 & 143) which states 45 trips. Please confirm which is correct figure. And for consideration of the Employer, revised number of trip (6-7 round trips for each trainset)	N/A	Bidder reference is not correct. The total number of trips shall according to GBB No. 15 dated 25 June 2021. .

		is still rather huge numbers comparing with NS02 and other Bidder's experiences.		
20.	GBB15 174/174 ATTCHMENT 2 Time for Access to the Site	AD3 Access to the mainline for On-Site Testing and Commissioning 34months The Bidder has following concerns on this revised AD3; 1) As it does not mention which part of main line becomes available, the Bidder cannot assure if there is enough length of mainline available to complete all required test and commissioning before Taking Over. (Note in the last revision under GBB10, it provides access between CIA to Solis.) 2) While ERG 8.1.7 requires the Contractor to verify 1,500km of FFR during Integrated Testing and Commissioning (under ERT 20.5), this AD3 guarantees only availability of mainline for On-Site Testing and Commissioning (under ERT20.4.3). Considering the above, the Bidder would like to request modification of AD3 containing a) enough length for the	AD3 Access to the mainline which is enough length for the Contractor to conduct On-Site Testing and Commissioning (ERT 20.4.3) as well as Integrated Testing and Commissioning (ERT 20.5). 34months	Bidder request is rejected. The access date are the right to access to a part of the Site as the works area available to the Contractor and the extents of such areas are specified in the Employer's Requirements.

		Contractor to perform all required test and commissioning before Taking Over (Note: The Bidder assume 25 km of mainline is required in minimum) b) assurance all infrastructure and railway systems on the accessible mainline are available for NS03 Contractor to conduct Integrated Testing and Commissioning (ERT 20.5) as well as demonstration of FFR.		
21.	Volume II/III - Part 2 Section VI ERT Chapter 20.6 Clause 20.6.8 276/355 (ERT-131) Trial Operations	All trains shall run the <u>entire</u> line taking into consideration Revenue Service, without passengers and in accordance with commercial service pattern.	All trains shall run the <u>available</u> ~~entire~~ line taking into consideration Revenue Service, without passengers and in accordance with commercial service pattern.	Please see Annex B for: 1. Updated 20.6.8; 2. AD 4 3. Taking-over certificate will be issued by Engineer/Employer after successful completion of all testing and commissioning and successful completion of FFR. The TOC will be issued on each trainset. Please refer to General Bid Bulletin No. 15 25 June 2021 – Item 1.
	GBB15 172/174 ATTACHMENT 1 Summary of Key Date	KD8 Achievement: Completion of Trial Operation support and the whole of the Works 58 months		
	GBB15 174/174 ATTACHMENT 2 Time for Access to the Site	AD4 Buendia-CIA Partial Operation 58 months 1) From the provisions under revised KD8 and AD4 the Bidder understands the	AD4 <u>The Employer starts Trial Operations at</u> Buendia-CIA <u>section</u>. <u>55</u>~~58~~ months	

		Employer intends to start partial operation of Limited Express Train between Buendia-CIA. With this, please revise requirement of ERT 20.6.8 accordingly. 2) The Bidder does not well understands sequence between KD8 and AD4 as they specifies same month (58months) and AD4 already confirms start of partial operation which is not nature of Access. With this, the Bidder would request modification of AD4 accordingly. 3) Kindly confirm Bidder' assumption is correct: Taking-over certificate will be issued by Engineer/Employer after successful completion of all the testing and commissioning. After the Taking-over certificate has been issued the Trail Operations will commence.		
22.	Volume II/III - Part 2 Section VI ERT Chapter 24,2 Clause 24.2.5	The spare part supplied during DNP shall include at least the below list of spare parts as	The spare part supplied during DNP shall include at least the below list of spare parts as minimum. The quantity shall be based on one (1) ~~trainset~~	Spare part requirement was updated. Please refer to General Bid Bulletin No. 16 2 July 2021.

	292/355 (ERT-147) Spare Parts	minimum. The quantity shall be based on one (1) trainset basis. Final list shall be confirmed during design stage. With a total order quantity of 7 trainsets, Bidders considers the requested minimum quantity to be based on 1 trainsets to be disproportionately high.	car basis, but at least (1) one of each item. Final list shall be confirmed during design stage.	
23.	Volume III/III - Part 3 Section VIII Particular Condition Contract Data 13/57 (PC-5) Delay damages for the Works	The daily amount payable for delay in achieving each Key Date as set out in the attached 'Table 1 – Key Dates' (see Attachment 1 hereto) shall be as follows: ..... KD 6 – JPY 10,930,745	N/A	The bidder's understanding on the proportioned delay damage is correct. However, please note that the calculation of the proportion shall be in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these proportions.
	GBB15 172/174 ATTCHMENT 1 Summary of Key Date	KD6 Achivement : Delivery of 7 trainset (1-7) and completion of testing and commissioing thereof plus handing over. 58month		
	Volume II/III - Part 2 Section VI ER6 Chapter 8.1 Clause 8.1.7 64/355 (ERG37) SYSTEM ASSURANCE	A Taking Over Certificate (TOC) will be issued for each trainset. In order to obtain a TOC for the Rolling Stock from the Employer/Engineer, it is required that each trainset achieves 1,500 km of Fault-Free Running (FFR) during the integrated testing and commissioning.		

	General Conditions (GC) GC-47 10.2 Taking Over of Parts of the Works	If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 [Delay Damages], and shall not affect the maximum amount of these damages. In respect of provisions under GC10.2, the Bidder understands daily rate of Delay Damages for KD6 will be proportionaly reduced if the Taking Over Certificate has been issued for part of trainset.		

		(e.g. If Taking Over Certificates have been issued to 6 out of 7 trainset at the time of KD6 expiary date, daily rate of Delay Damages to be reduced to JPY 10,930,745 x 1/7 = JPY 1,561,535). Please confirm if the Bidder's understaning is correct.		
24.	GBB15 172/174 ATTCHMENT 1 Summary of Key Date	KD3 Completing FAI and FAT 36month Considering the time gap between KD6 – Handing over of whole 7 trainset, the Bidder understands this KD3 is applicable for 1st trainset only. Please confirm if the Bidder's understanding is correct.	KD3 Completing FAI and FAT of 1st trainset 36month	Please see Annex B.
25.	GBB15 172/174 ATTCHMENT 1 Summary of Key Date	KD3 Completing FAI and FAT 36month Considering KD6 being 58 months, there is a very long period of 22 months between KD3 and KD6, where trains are mostly sitting idle. Also consideiring availability of testing facilities for FAT it would be very reasonable to permit more time for the FAT instead of having very limited time for the FAT and then afterwards	KD3 Completing FAI and FAT 45 ~~36~~ month	Bidder request is rejected. Please refer to clause 20.4.2 on FAT requirement. KD6 is the TOC for all 7 trainset. KD3 applies only to 1st trainset.

		the trains have to be stored for a very long time. We therefore kindly request to change the KD3 from 36 months to 45 months.		
26.	GBB15 72/174 Annex B Item 37 20.6.9 ERT-131	Updated clause 20.6.9: After completion of all the testing and commissioning, Taking-Over Certificate will be issued by the Engineer/Employer with respect to ERG clause 8.1.7, 8.6.2 and 8.8.3.9.		Please see Annex B.
	Volume II/III - Part 2 Section VI ERT Chapter 20.6 Clause 20.6.10 276/355 (ERT131) Trial Operation	Defect notification should start when trains have completed the acceptance process and <u>are signed off for commercial service</u>. From this clarificcation under GBB15, the Bidder understand there is a possibility that Taking Over Certificate to be issued before completion of Trial Operation. Although the Bidder may not well understand the intention of word ''are signed off for commercial service'', the Bidder afraid ERT 20.6.10 may imply that Defect Notification Period only starts after completion of Trial Operation and even commencement operation	Defect notification should start when trains have completed the acceptance process ~~and are signed off for commercial service~~.	

		which is out of the Contractor's control. With this, the Bidder would like to ask the Employer's consideration to delete said wording from ERT 20.6.10. This is also in line with provision under General Condiiton sub-cluase 1.1.3.7.		
27.	GBB15 – Annex B – Item 45 PC-8 PC-11 Attachment 1 Summary of Key Dates Attachment 2 Time for Acces to the Site	There is an important difference between KD3 and KD6 (22 months) so Contractor would need to store units during that time. 1. We would like to know where the trains will be stored during that time. Is there any depot or stabling yard in Manila available where the trains can be properly parked? 2. As well, we kindly to advance KD6 or any other KD date and apply payment milestones consequently. 3. If it is not possible, please consider deleting or at least delaying KD3. 4. Availability for operation of AD4 at NTP+58, limits and reduces the optimisation of the planning. As this cannot probably be advanced, Tenderer kindly requests at least not to include contractual restrictions on KD dates which will impact on financial costs and	N/A	Please see response provided on item 32 and 33. 1. Mabalacat Depot; 2. Bidder request is rejected 3. Bidder request is rejected 4. Bidder request is rejected

28.	General Conditions. Section VII PC – 18 14.1 Contract Price	(1) The Government of the Republic of the Philippines shall, by itself or through its executing agency, assume: all duties and related fiscal charges imposed in the Republic of the Philippines on the Japanese/International companies operating as suppliers and contractors with respect to the import and re-export of their own materials and equipment needed for the implementation of the Project; and The text states that the Employer will be the importer of the contractual deliveries. Please clarify if the Employer will also assume the execution of the Customs Clearances and the cost of the Customs Agent's fees.	N/A	The bidder's understanding is not correct. It is only applicable to all duties and related fiscal charges imposed as shown in this paragraph.

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<table>
<tr><th>ITEM NO.</th><th>REFERENCE/CLAUSE/ SECTION</th><th>REVISIONS / AMENDMENTS</th></tr>
<tr><td colspan="3">Volume I Part I – Bidding Procedures</td></tr>
<tr><td>1</td><td>BF-41-42</td><td>Updated Schedule 1.4: Transportation, On-Site Assembling and Testing:
<table>
<tr><th rowspan="2">Milestone No.</th><th rowspan="2">Work Description (Milestone)</th><th rowspan="2">Unit</th><th rowspan="2">Quantity</th><th colspan="2">Unit Rate/Price</th><th colspan="2">Amount</th></tr>
<tr><th>Local</th><th>Foreign</th><th>Local</th><th>Foreign</th></tr>
<tr><td>401</td><td>Transportation from the port of arrival to a designated Depot, assembling of the 1st trainset of 8 cars, completion of the Site Acceptance Tests and completion of all commissioning work, and acceptance thereof by the Engineer - (total of 1 trainset).</td><td>sum</td><td>1</td><td></td><td></td><td></td><td></td></tr>
<tr><td>402</td><td>Same as above but for the 2nd to 7th trainsets of 8 cars - (total of 6 trainsets).</td><td>sum</td><td>1</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>(Payment for Milestones 401 to 402 above will be made upon completion of</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
</table></td></tr>
</table>

ITEM NO.	REFERENCE/CLAUSE/ SECTION	REVISIONS / AMENDMENTS							
			the transportation, on-Site assembling and testing of each trainset, in proportion to the total number of trainsets required.)						
		403	Completion of 1500 km Fault Free Running during Integrated Testing and Commissioning for all 7 trainsets.	sum	1				
			(Payment for Milestone 403 will be made upon completion of the 1500 km Fault Free Running for each trainset, in proportion to the total number of trainsets required.)	-	-	-	-	-	-

ITEM NO.	REFERENCE/CLAUSE/ SECTION	REVISIONS / AMENDMENTS							
		404	Completion of In-service Operations, comprising 10,000 km or 2 months of continuous Fault Free Running for all 7 trainsets, and obtaining the Performance Certificate from the Engineer for the entire fleet of 7 trainsets.	sum	1				
			(Payment for Milestone 404 will be made only after the Performance Certificate for the entire fleet of 7 trainsets has been issued by the Engineer.)	-	-	-	-	-	-
		405	Other obligations with regard to the transportation, on-Site assembling and testing that are considered necessary to comply with the Contract but which are not covered in other Schedules and the above Milestone items.	sum	1				

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ITEM NO.	REFERENCE/CLAUSE/ SECTION	REVISIONS / AMENDMENTS
		Note: The Bidder may sub-divide the above Milestones and/or add appropriate proposed Milestones. | - | - | - | - | - | -
		Total for Schedule 1.4 (Carried forward to Grand Summary) | |
Volume II Part II – Employer's Requirement		
2	ERT-57 6.1.2	Updated clause 6.1.2: The Contractor shall ensure all lighting fulfills the mandatory requirements of EN 13272 Railway applications - Electrical lighting for rolling stock in public transport systems, JIS E4016 –Illuminance for Railway Rolling Stock – Recommended levels and measuring methods (or other equivalent standards), even when the lights have been used for 40,000hours. And the average illuminance shall be more than 300 lux over the saloon area on the height of 0.85 m above the floor level after delivery completed, otherwise proposed by the Contractor and subject to the review by the Engineer
3	ERT-62-63 7.3.6, 7.3.7	Updated clause 7.3.6: Passenger doors shall be provided with interlock switches incorporated in the Door Control Circuit to prove that doors are closed. When the Door Control Circuit is not proven closed, train movement shall be inhibited. Door interlock status shall then be interfaced to the TMS. Basically, status that obstacles that have less than 5mm thickness are sandwiched shall be also defined 'Closed'. But status that obstacles that have over 10mm thickness are sandwiched shall be not defined 'Closed'. For pneumatic type, re-open function only for 'Not closed door' shall be valid in this situation. Care shall be paid to equip diodes to appropriate positions so that

ITEM NO.	REFERENCE/CLAUSE/ SECTION	REVISIONS / AMENDMENTS
		mis-operation caused by energizing wires unintentionally, are not happened. Updated clause 7.3.7: The passenger doors are equipped with the following safety system: 1) Inform passengers that the doors are being closed by sound and visual devices; 2) Authorize starting of the train only when all doors are closed 3) It is necessary to install a function to detect and manage the obstacles so that a sandwiched object or a person can easily escape. And this function shall be canceled after train speed exceed a certain speed or a certain time passes from doors close.
4	ERT-65 7.5	Added clause 7.5: **7.5 Electronic Equipment** 7.5.1 Hardware 7.5.1.1 Electronic hardware shall be designed according to the JIS or EN standard. 7.5.2 Software for Electronic Door Control System 7.5.2.1 The software shall be designed to the necessary software safety integrity level (SSIL) to achieve the overall safety requirement for the door. 7.5.2.2 The function of the door shall be demonstrated during FAT.

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<table>
<tr><th>ITEM NO.</th><th>REFERENCE/CLAUSE/ SECTION</th><th>REVISIONS / AMENDMENTS</th></tr>
<tr><td>5</td><td>ERT-55
5.19.2.1</td><td>Updated clause 5.19.2.1:

The master controller shall control accelerating and braking in several steps adjustable or stepless adjustable, linear manner. In case of a several steps adjustable, the master controller features will at minimum as follows:

<table>
<tr><th></th><th>Handle Position</th><th>Function</th></tr>
<tr><td>1.</td><td>Vertically upright</td><td>OFF position</td></tr>
<tr><td>2.</td><td>Forward from the vertical position until the handle reaches its end position with a spring return device.</td><td>Propulsion, with acceleration increasing acoording 4 steps with handle movement.</td></tr>
<tr><td>3.</td><td>Backwards from the vertical position until the handle engages a a spring loaded detent.</td><td>Normal Braking, with the effort increasing acoording to 7 steps with handle movement.</td></tr>
<tr><td>4.</td><td>Backwards from the spring loaded detent in 3, until the handle reaches its end position.</td><td>Emergency braking.</td></tr>
</table>

In case of a stepless adjustable linear manner, the master controller features will at minimum:
a. Coasting / neutral position: The center position is notched. Traction is not applied;
b. Traction: Push lever forwards 0...100% of the path proportionally sets desired tractive effort;
c. Braking: Pull lever backward, 0...100% of the path proportionally sets the braking effort;
d. Emergency brake: Notched to prevent accidental triggering by the driver.</td></tr>
</table>

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ITEM NO.	REFERENCE/CLAUSE/ SECTION	REVISIONS / AMENDMENTS
6	ERT-124 20.1.2.4	Updated clause 20.1.2.4: No Rolling Stock shall be considered ready for delivery without the Engineer's endorsement in writing. The Contractor shall bear the cost of attendance at the inspections/tests made outside the Country including travel, flight charge (economy class) from Manila to the place where the inspection/test will be made, lodging, local transportation, safety gears, insurance, per diem allowance of $100 US each upon landing until the last day of stay on the country of destination, etc., for the Employer's and Engineer's Personnel (attendance). It is expected that five (5) attendances will attend at each inspection/test at forty-five (45) times with seven (7) days including travel time for each inspection/test as shown in Table 22.2. If the inspection/test cannot be completed satisfactorily due to the inspection/test, or a section, fail to pass the inspection/test completion or other reasons deemed to be attributed by the Contractor, the additional inspection/test attended by attendance will be arranged and the cost of attendance for such additional inspection shall be borne by the Contractor;
7	ERT-131 20.6.8, 20.6.10	Updated clause 20.6.8: All trains shall run the available line taking into consideration Revenue Service, without passengers and in accordance with commercial service pattern. Updated clause 20.6.10: Defect notification should start when trains have completed the acceptance process.

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<table>
<tr><th>ITEM NO.</th><th>REFERENCE/CLAUSE/ SECTION</th><th>REVISIONS / AMENDMENTS</th></tr>
<tr><td colspan="3">Volume III Part III - Conditions of Contract and Contract Forms</td></tr>
<tr><td>8</td><td>PC-11
Attachment 2</td><td>Updated Attachment 2 - Time for Access to The Site:
<table>
<tr><td>Access Date</td><td>Site (Works Area)</td><td>Month no.</td></tr>
<tr><td rowspan="2">AD 1</td><td>On-board Signalling System and other equipment to be mounted on the Rolling Stock supplied by CP NS-01 Contractor from E&M Systems and Track Works.
The E&M System and Track Works Contractor will supply this equipment in Japan at the Rolling Stock Contractor’s premises or at alternative agreed location(s)</td><td></td></tr>
<tr><td>AD-1: for trainsets one to seven (1-7) supplied under this contract</td><td>26 months</td></tr>
<tr><td>AD 2</td><td>Access to allocated areas within the North Depot for receiving trainsets, assembling, testing, commissioning and test running within the depot.</td><td>28 months</td></tr>
<tr><td>AD 3</td><td>Access to the mainline for On-Site Testing and Commissioning</td><td>34 months</td></tr>
<tr><td>AD 4</td><td>Access to Buendia - CIA for Trail Operation</td><td>56 months</td></tr>
<tr><td>AD5</td><td>Access to the whole mainline from Calamba to CIA</td><td>74 months</td></tr>
</table></td></tr>
</table>

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<table>
<tr><th>ITEM NO.</th><th>REFERENCE/CLAUSE/ SECTION</th><th>REVISIONS / AMENDMENTS</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>NB</td><td>1. Access will be given progressively to the whole of the North South Commuter Railway for the use of this Rolling Stock.
2. Obtaining permission from the Railway Safety Inspector to use the Rolling Stock for commercial operations will be the responsibility of the Employer with the support of the Rolling Stock manufacturer.</td><td></td></tr>
</table>
</td></tr>
<tr><td>9</td><td>PC-8
Attachment 1</td><td>Updated Attachment 1 - SUMMARY OF KEY DATES:
<table>
<tr><th colspan="3">TABLE 1 – KEY DATES</th></tr>
<tr><th>Key Date</th><th>Element of Work</th><th>No. of Months</th></tr>
<tr><td>KD 1</td><td>Achievement: Completing Final Design Review.</td><td>25 months</td></tr>
<tr><td>KD 2</td><td>Achievement: Deliver the Mock Up to the site</td><td>24months</td></tr>
<tr><td>KD 3</td><td>Achievement: Completing FAI and FAT on the 1st trainset</td><td>36months</td></tr>
<tr><td>KD 4</td><td>Achievement: Supply and delivery of the following Rolling Stock equipment for training purposes to the CP NS-01 Contractor at the North Depot (for Training Center Facility):
- Equipment for driving simulator,
- Pantograph, and</td><td>35 months</td></tr>
</table>
</td></tr>
</table>

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<table>
<tr><th>ITEM NO.</th><th>REFERENCE/CLAUSE/ SECTION</th><th>REVISIONS / AMENDMENTS</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td>- Bogie assembly for motor car including traction motor, gearbox and coupling.</td><td></td></tr>
<tr><td>KD 5</td><td>Achievement: Completion of training and delivery of Operation and Maintenance Manual.</td><td>55 months</td></tr>
<tr><td>KD 6</td><td>Achievement: Delivery of 7 trainsets (1-7) and completion of testing and commissioning thereof plus handing over.</td><td>58 months</td></tr>
<tr><td>KD 7</td><td>Achievement: Delivery of all spare parts, consumables, special tools and jigs, plus as-built drawings.</td><td>57 months</td></tr>
<tr><td>KD 8</td><td>Achievement: Completion of Trial Operation support and the whole of the Works.</td><td>58 months</td></tr>
</table>
</td></tr>
</table>

Annex B – Attachment 1

Schedule 1.4 : Transportation, On-Site Assembling and Testing

Milestone No.	Work Description (Milestone)	Unit	Quantity	Unit Rate/Price		Amount	
				Local	Foreign	Local	Foreign
401	Transportation from the port of arrival to a designated Depot, assembling of the 1st trainset of 8 cars, completion of the Site Acceptance Tests and completion of all commissioning work, and acceptance thereof by the Engineer - (total of 1 trainset).	sum	1				
402	Same as above but for the 2nd to 7th trainsets of 8 cars - (total of 6 trainsets).	sum	1				
	(Payment for Milestones 401 to 402 above will be made upon completion of the transportation, on-Site assembling and testing of each trainset, in proportion to the total number of trainsets required.)	-	-	-	-	-	-
403	Completion of ~~Trial Operations, comprising~~ 1500 km Fault Free Running during Integrated Testing and Commissioning for all 7 trainsets.	sum	1				
	(Payment for Milestone 403 will be made upon completion of the ~~Trial~~ 1500 km Fault Free Running ~~Operations~~ for each trainset, in proportion to the total number of trainsets required.)	-	-	-	-	-	-

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403	Completion of 1500 km Fault Free Running during Integrated Testing and Commissioning for all 7 trainsets.	sum	1				
	(Payment for Milestone 403 will be made upon completion of the 1500 km Fault Free Running for each trainset, in proportion to the total number of trainsets required.)	-	-	-	-	-	-
404	Completion of In-service Operations, comprising 10,000 km or 2 months of continuous Fault Free Running for all 7 trainsets, and obtaining the Performance Certificate from the Engineer for the entire fleet of 7 trainsets.	sum	1				

6 Lighting

6.1 General

6.1.1 The lighting circuits shall include at least:

1) Driver's Cab Lights;
2) Passenger Saloon Lights;
3) Passenger Saloon Emergency Lights;
4) Exterior Lights.

6.1.2 The Contractor shall ensure all lighting fulfills the mandatory requirements of EN 13272 Railway applications - Electrical lighting for rolling stock in public transport systems, JIS E4016 –Illuminance for Railway Rolling Stock – Recommended levels and measuring methods (or other equivalent standards), even when the lights have been used for 40,000hours. And the average illuminance shall be more than 300 lux over the saloon area on the height of 0.85 m above the floor level after delivery completed, otherwise proposed by the Contractor and subject to the review by the Engineer.

6.1.3 All interior lights shall have a level of protection of at least IP53. All exterior lights and switches shall have a level of protection of at least IP65.

6.1.4 Care shall be taken to ensure that flickering does not occur during train starting or normal running.

6.1.5 Individual lights circuits shall be protected from abnormal currents via separate miniature circuit breakers correctly rated for the load. Each light circuit shall be controlled by separate switching.

6.1.6 The lighting functionality and operation will be agreed through the design review and Mock-up processes.

6.2 Driver's Cab Lights

6.2.1 Lighting in the Driver's Cab shall be controlled by the Driver. In addition to general lighting a Driver's spotlight shall be provided for the purposes of reading.

6.2.2 Lighting in the Driver's Cab area shall be powered via the battery system when the auxiliary power supply is not working.

6.2.3 Independent lighting of the driver's desk reading zone shall be provided on driver's command, and shall be adjustable up to a value higher than 150 lux.

6.2.4 The Contractor shall provide LED lighting which is no less than 100 lux measured on vertical plane 500 mm above driver seat level.

6.3 Passenger Saloon Lights

6.3.1 The Driver shall be able to control the lighting in a train consist. The lighting arrangement shall be configured to provide continuous uniform lighting, to eliminate glare and to minimize the creation of shadows.

6.3.2 The Contractor shall provide LED lighting in the passenger area that is modern and aesthetically pleasing with a mass production of over 5 years' service proven. LED

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7.3.6 ~~Each pair of saloon~~Passenger doors shall be provided with interlock switches incorporated in the Door Control Circuit to prove that doors are closed. When the Door Control Circuit is not proven closed, train movement shall be inhibited. ~~Saloon d~~Door interlock status shall then be interfaced to the TMS. Basically, status that obstacles that have less than 5mm thickness are sandwiched shall be also defined 'Closed'. But status that obstacles that have over 10mm thickness are sandwiched shall be not defined 'Closed'. For pneumatic type, re-open function only for 'Not closed door' shall be valid in this situation. Care shall be paid to equip diodes to appropriate positions so that mis-operation caused by energizing wires unintentionally, are not happened.

7.3.7 The passenger~~saloon~~ doors are equipped with the following safety system:

1) Inform passengers that the doors are being closed by sound and visual devices;
2) Authorize starting of the train only when all doors are closed
3) It is necessary to install a function to detect and manage the obstacles ~~temporarily weaken the air pressure~~ so that a sandwiched object or a person can easily escape. And this function shall be canceled after train speed exceed a certain speed or a certain time passes from doors close.

7.3.8 Detection of small objects, hands, clothes shall be detected by sensitive edge door devices. The obstruction detection shall be tested with a rigid 15 mm diameter object placed perpendicular to the door panels at any three (3) vertical locations along the leading edge of the doors (except the lowest 75 mm and the upper most 100 mm).

7.3.9 On detection of an obstruction the doors shall behave in the following manner (or similar):

1) If, during the first attempt to close, a door is obstructed, the door shall reopen by at least 100 mm for each leaf and remain open for 1 second before attempting to close again. The driver shall be notified of the door obstruction and its location by the TMS;
2) If, on the second attempt to close, the door is obstructed, the door shall reopen by at least 100 mm for each leaf before attempting to close again. There shall be the ability to manually push the door back further;
3) If, on the third attempt to close, the door is obstructed, the door shall open to full width and remain in this state until reset; and
4) To reset the door, the crew shall operate the door close control to restart the closing cycle.

7.3.10 In the event that the passenger door fails to close following the three attempts, further door movement shall cease on the offending passenger door and door will go to and remain in fully open position. Once such a passenger door has stopped movement, following this condition, further door closure shall require another activation of the corresponding "Door Close" command.

7.3.11 The push back feature shall be operative after the door leaves have been locked. It shall be possible to manually push back each closed-door leaf to enable entrapped objects such as clothing and other articles, to be withdrawn, even after the mechanical lock has engaged. The force required to push back each door leaf shall not be less than 80N nor more than 120N.

7.3.12 The door system shall continue to operate correctly within the car battery voltage supply in the specified range.

7.3.13 The above gaps and timings are notional and shall be capable of being adjusted after

7.3.6 Passenger doors shall be provided with interlock switches incorporated in the Door Control Circuit to prove that doors are closed. When the Door Control Circuit is not proven closed, train movement shall be inhibited. Door interlock status shall then be interfaced to the TMS. Basically, status that obstacles that have less than 5mm thickness are sandwiched shall be also defined 'Closed'. But status that obstacles that have over 10mm thickness are sandwiched shall be not defined 'Closed'. For pneumatic type, re-open function only for 'Not closed door' shall be valid in this situation. Care shall be paid to equip diodes to appropriate positions so that mis-operation caused by energizing wires unintentionally, are not happened.

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2) If, on the second attempt to close, the door is obstructed, the door shall reopen by at least 100 mm for each leaf before attempting to close again. There shall be the ability to manually push the door back further;
3) If, on the third attempt to close, the door is obstructed, the door shall open to full width and remain in this state until reset; and
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7.3.12 The door system shall continue to operate correctly within the car battery voltage supply in the specified range.

7.3.13 The above gaps and timings are notional and shall be capable of being adjusted after experience in service has been gained. The initial settings shall be determined from an

authorization/command is available from On Board Signaling System. This requires zero speed signal and driver button operation.

7.4 **Door Manual Emergency Release Mechanism (outside of train)**

7.4.1 It is necessary to be provided with one (1) handle on each side of one (1) car (two (2) handles required in one car). without use of special keys or tools.

7.4.2 The operating element of the access device shall be located in the area adjacent to a passenger bodyside door at a height so that it can be operated from track and from all relevant platform levels.

7.4.3 This is the Emergency Access Device to be used by emergency services etc.

7.4.4 Clear and unambiguous signage in both English and Filipino giving instruction on the use of passenger door emergency facilities shall be provided.

7.4.5 The position and detail of door manual emergency release mechanism shall require to be enough service-proven. And the final position and detail of door manual emergency release mechanism shall be reviewed by the Engineer.

7.4.6 The emergency access device can be reset without a key.

7.5 **Electronic Equipment**

7.5.1 Hardware

7.5.1.1 Electronic hardware shall be designed according to the JIS or EN standard.

7.5.2 Software for Electronic Door Control System

7.5.2.1 The software shall be designed to the necessary software safety integrity level (SSIL) to achieve the overall safety requirement for the door.

7.5.2.2 The function of the door shall be demonstrated during FAT.

~~7.5~~7.5.3 ~~Not Used~~

7.6 **Door Interfaces**

7.6.1 The Contractor shall consider in his design the following interface requirements:

1) TMS / Status monitoring
2) Chime
3) Light
4) Signaling System and
5) PSD Controller

7.6.2 Doors shall be part of the safety loop and shall be interlocked with the brake system.

7.7 **Door Opening Authorization in Degraded Operation**

7.7.1 In case of unavailability/failure of door authorization signal from Signaling system,

7.4 Door Manual Emergency Release Mechanism (outside of train)

7.4.1 It is necessary to be provided with one (1) handle on each side of one (1) car (two (2) handles required in one car). without use of special keys or tools.

7.4.2 The operating element of the access device shall be located in the area adjacent to a passenger bodyside door at a height so that it can be operated from track and from all relevant platform levels.

7.4.3 This is the Emergency Access Device to be used by emergency services etc.

7.4.4 Clear and unambiguous signage in both English and Filipino giving instruction on the use of passenger door emergency facilities shall be provided.

7.4.5 The position and detail of door manual emergency release mechanism shall require to be enough service-proven. And the final position and detail of door manual emergency release mechanism shall be reviewed by the Engineer.

7.4.6 The emergency access device can be reset without a key.

7.5 Electronic Equipment

7.5.1 Hardware

7.5.1.1 Electronic hardware shall be designed according to the JIS or EN standard.

7.5.2 Software for Electronic Door Control System

7.5.2.1 The software shall be designed to the necessary software safety integrity level (SSIL) to achieve the overall safety requirement for the door.

7.5.2.2 The function of the door shall be demonstrated during FAT.

7.6 Door Interfaces

7.6.1 The Contractor shall consider in his design the following interface requirements:

1) TMS / Status monitoring
2) Chime
3) Light
4) Signaling System and
5) PSD Controller

7.6.2 Doors shall be part of the safety loop and shall be interlocked with the brake system.

7.7 Door Opening Authorization in Degraded Operation

7.7.1 In case of unavailability/failure of door authorization signal from Signaling system, adequate safeguards shall be provided and also incorporated in control circuit to minimize the probability of error of opening of doors on wrong side (other than platform side) during revenue service. In this case, the opening can be controlled by the train driver by the action on a right opening button or a left opening button placed on the desk.

11) Vigilance Alarm Buzzer,

12) Loud Speakers,

13) On board ATP Buzzer,

14) Fault Buzzers,

15) Miscellaneous Switches. (Horn, headlight (high/low beam), and

16) Gauges/voltmeter - such as speedometer, line voltage, Brake Cylinder pressure, main reservoir pressure, etc.

~~17) Monitors for PSD operation~~

~~18)~~17) Speedometer

5.19.2 Master Controller

5.19.2.1 The master controller shall control accelerating and braking in several steps adjustable or stepless adjustable, linear manner. In case of a several steps adjustable, the master controller features will at minimum as follows:~~, as follows:~~

	Handle Position	Function
1.	Vertically upright	OFF position
2.	Forward from the vertical position until the handle reaches its end position with a spring return device.	Propulsion, with acceleration increasing acoording 4 steps with handle movement.
3.	Backwards from the vertical position until the handle engages a a spring loaded detent.	Normal Braking, with the effort increasing acoording to 7 steps with handle movement.
4.	Backwards from the spring loaded detent in 3, until the handle reaches its end position.	Emergency braking.

In case of a stepless adjustable linear manner, the master controller features will at minimum:

a. Coasting / neutral position: The centre position is notched. Traction is not applied;
b. Traction: Push lever forwards 0...100% of the path proportionally sets desired tractive effort;
c. Braking: Pull lever backward, 0...100% of the path proportionally sets the braking effort;
d. Emergency brake: Notched to prevent accidental triggering by the driver.

5.19.2.2 The Master Controller shall be ergonomically designed to minimize unnecessary physical strain and fatigue to the driver.

5.19.2.3 The Master Controller shall have a control system for keeping the constant speed in case of powering.

5.19.2.4 The Master Controller shall be locked/unlocked by the Driver's key and Reversing Switch.

5.19.2.5 When the driver's key is in the ON position and Reversing Switch is in the forward or reverse position, the Master Controller shall be unlocked.

17) Speedometer

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d. Emergency brake: Notched to prevent accidental triggering by the driver.

5.19.2.2 The Master Controller shall be ergonomically designed to minimize unnecessary physical strain and fatigue to the driver.

5.19.2.3 The Master Controller shall have a control system for keeping the constant speed in case of powering.

5.19.2.4 The Master Controller shall be locked/unlocked by the Driver's key and Reversing Switch.

5.19.2.5 When the driver's key is in the ON position and Reversing Switch is in the forward or reverse position, the Master Controller shall be unlocked.

5.19.2.6 The driver's key shall itself be captive when The Master Controller is not in the predetermined Emergency position.

5.19.2.7 The driver's key shall itself be captive when The Reversing Switch is not in the predetermined OFF(Neutral) position.

5.19.2.8 Only one cab of 2 cabs on a trainset shall be able to be activated at any time.

5.19.3 Reversing Switch

5.19.3.1 The Reversing Switch has three (3) positions, as follows.

20.1.2.3 The Contractor shall propose the inspection hold points within 180 days of the Date for Commencement of the Works. The inspection hold points shall be submitted for review by the Engineer.

20.1.2.4 No Rolling Stock shall be considered ready for delivery without the Engineer's endorsement in writing. The Contractor shall bear the cost of attendance at the inspections/tests made outside the Country including travel, flight charge (economy class) from Manila to the place where the inspection/test will be made, lodging, local transportation, safety gears, insurance, per diem allowance of $100 US each upon landing until the last day of stay on the country of destination, etc., for the Employer's and Engineer's Personnel (attendance). It is expected that five (5) attendances will attend at each inspection/test at ~~seventy-six~~forty-five (45~~76~~) times with seven (7) days including travel time for each inspection/test as shown in Table 22.2. If the inspection/test cannot be completed satisfactorily due to the inspection/test, or a section, fail to pass the inspection/test completion or other reasons deemed to be attributed by the Contractor, the additional inspection/test attended by attendance will be arranged and the cost of attendance for such additional inspection shall be borne by the Contractor;

Table 20.2 Inspection Trips

No.	Attendance	Quantity	Remarks
1	Employer	45~~76~~ roundtrips*7 days*3 persons	Type test, FAT, I FAT and FACI
2	Engineer	45~~76~~ roundtrips*7 days*2 persons	

20.1.2.5 The Contractor shall submit the inspection/test procedure for Engineer review ninety (90) days prior to the commencement of the respective inspection/test activity

20.1.2.6 The Contractor shall prepare and submit to the Engineer for review two (2) copies of inspection or test report immediately after the completion of each inspection or test;

20.1.2.7 Once the inspection/test and any required remedial actions are completed to the satisfaction of the Engineer, the Engineer shall give a notice of endorsement for unit shipment; and

20.1.2.8 Any unit delivered without the Engineer's endorsement may be rejected at the Site and all expenses thereby incurred shall be borne by the Contractor.

20.1.3 Inspection Prior to Delivery

20.1.3.1 The Engineer/Employer shall be afforded the opportunity of inspecting all cars to be delivered under the Contract before leaving the Contractor's facility and prior to delivery to the Site.

20.1.3.2 The Contractor shall advise the Engineer no less than 15 days in advance of a vehicle being available for inspection.

20.1.3.3 Once the inspection and any required remedial actions are completed to the satisfaction of the Engineer, the Engineer shall give consent for vehicle shipment.

20.1.4 First Article Inspection

20.1.4.1 First Article Inspections (FAI) shall be performed as specified in Clause 22.4 of ERT.

20.1.2.4 No Rolling Stock shall be considered ready for delivery without the Engineer's endorsement in writing. The Contractor shall bear the cost of attendance at the inspections/tests made outside the Country including travel, flight charge (economy class) from Manila to the place where the inspection/test will be made, lodging, local transportation, safety gears, insurance, per diem allowance of $100 US each upon landing until the last day of stay on the country of destination, etc., for the Employer's and Engineer's Personnel (attendance). It is expected that five (5) attendances will attend at each inspection/test at forty-five (45) times with seven (7) days including travel time for each inspection/test as shown in Table 22.2. If the inspection/test cannot be completed satisfactorily due to the inspection/test, or a section, fail to pass the inspection/test completion or other reasons deemed to be attributed by the Contractor, the additional inspection/test attended by attendance will be arranged and the cost of attendance for such additional inspection shall be borne by the Contractor;

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20.2 General Testing Requirements

3) Validation of train schedule running;

4) Station stops precision (including regenerative braking force fluctuation)

5) Training of drivers, OCC staff and line managers; and

6) Emergency exercises.

20.6.5 Different test cases shall be developed in normal operation (checking that new trains can achieve daily timetable without delays and incidents) and degraded modes (simulating different incidents) as follows:

1) Failure during pre-departure tests;

2) Traction mode failure;

3) Train doors fail to close;

4) On-board signaling defects; and

5) Rescue of Failed Train.

20.6.6 A detailed list of test cases shall be drafted by all interested parties prior to the commencement of the Trial Operations. Some of these tests may be an opportunity for close coordination with third parties such as the police and emergency services, to check any new features of the procured new trains.

20.6.7 As for station stop precision, improvement and trial operation must be continued until a certain standard is achieved. The required standard is for each passenger door to stop within the platform screen door opening. Regarding this improvement, coordination with equipment such as a propulsion system, a brake system, a TMS, a brake shoe, etc. shall be made when necessary.

20.6.8 All trains shall run the ~~entire~~ available line taking into consideration Revenue Service, without passengers and in accordance with commercial service pattern.

20.6.9 After completion of all the testing and commissioning, Taking-Over Certificate will be issued by the Engineer/Employer with respect to ERG clause 8.1.7, 8.6.2 and 8.8.3.9.~~.~~

20.6.10 Defect notification should start when trains have completed the acceptance process. ~~and are signed off for commercial service.~~

20.7 Test Documentation

20.7.1 All test documentation, procedures, reports and certifications shall be provided with a unique document number and properly controlled.

20.7.2 Test Procedures

20.7.2.1 The test procedure must state the purpose of the test, and reference the relevant portion of the ERT or standard with which the procedure intends to comply.

20.7.2.2 The test procedure shall clearly define the condition of the equipment and the test set-up (test conditions), and any tests that the equipment must have previously passed. The test procedure must describe in detail the equipment needed to perform the test.

20.7.2.3 The test procedure must provide detailed, step-by-step instructions as to how the test is to be carried out. This includes results expected, and actions to be taken should the expected result not be achieved.

6) Emergency exercises.

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20.7.2.3 The test procedure must provide detailed, step-by-step instructions as to how the test is to be carried out. This includes results expected, and actions to be taken should the expected result not be achieved.

20.7.2.4 During the test the testing shall be carried out strictly in accordance with the approved test procedure. If additional steps are found to be necessary during testing, the testing shall stop, the test procedure shall be rewritten to include the changes and the procedure shall be submitted to the Engineer for given statement of No Objection. Once approved, the changed test shall be performed.

ATTACHMENT 2

TIME FOR ACCESS TO THE SITE

(1) The date on which the right to access to a part of the Site as the works area available to the Contractor are defined below and the extents of such areas are specified in the Employer's Requirements.
(2) Month numbers shown in the schedule signify the elapsed time in months from the Commencement Date. The month numbers shall be converted into actual calendar dates after receipt by the Contractor of the Engineer's notification of the Commencement Date. Access Date means the first day of the month specified below

Access Date	Site (Works Area)	Month no.
AD 1	On-board Signalling System and other equipment to be mounted on the Rolling Stock supplied by CP NS-01 Contractor from E&M Systems and Track Works. The E&M System and Track Works Contractor will supply this equipment in Japan at the Rolling Stock Contractor's premises or at alternative agreed location(s)	
	AD-1: for trainsets one to seven (1-7) supplied under this contract	~~37~~ 2625 ~~25~~ months
AD 2	Access to allocated areas within the North Depot for receiving trainsets, assembling, testing, commissioning and test running within the depot.	~~35~~ 2828 ~~28~~ months
AD 3	Access to the mainline ~~from CIA to Clark (as available)~~ for ~~Test running and Performance Proving~~On-Site Testing and Commissioning	~~36~~ 3428 ~~28~~ months
AD 4	Access to Buendia - CIA for Trail Operation~~Access to the whole mainline from Calamba to CIA~~	~~68~~ 5678 ~~78~~ months
AD5	Access to the whole mainline from Calamba to CIA	74 months
NB	1. *Access will be given progressively to the whole of the North South Commuter Railway for the use of this Rolling Stock.* 2. *Obtaining permission from the Railway Safety Inspector to use the Rolling Stock for commercial operations will be the responsibility of the Employer with the support of the Rolling Stock manufacturer.*	

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	AD-1: for trainsets one to seven (1-7) supplied under this contract	26 months
AD 2	Access to allocated areas within the North Depot for receiving trainsets, assembling, testing, commissioning and test running within the depot.	28 months
AD 3	Access to the mainline for On-Site Testing and Commissioning	34months
AD 4	Access to Buendia - CIA for Trail Operation	56 months
AD5	Access to the whole mainline from Calamba to CIA	74 months
NB	1. *Access will be given progressively to the whole of the North South Commuter Railway for the use of this Rolling Stock.* 2. *Obtaining permission from the Railway Safety Inspector to use the Rolling Stock for commercial operations will be the responsibility of the Employer with the support of the Rolling Stock manufacturer*.	

ATTACHMENT 1

SUMMARY OF KEY DATES

(1) The Employer requires the Contractor to complete certain elements of work by specific Key Dates (KD). Delay in achieving those Key Dates shall render the Contractor liable to pay Delay Damages (as set out in Part A, Contract Data, of the Particular Conditions).

(2) Achieving a Key Date for an element of work means that, before the expiry of the number of months relevant to the element in question (as specified in "Table 1 – Key Dates" below), all works related to that element have been completed to the satisfaction of the Engineer. The number of months shown in Table 1 against a Key Date and its specific element of work signifies the maximum duration in months from the Commencement Date within which the identified element must be completed. The number of months shown in Table 1 will be converted into actual calendar dates after receipt by the Contractor of the Engineer's notification of the Commencement Date for the Project.

TABLE 1 – KEY DATES

Key Date	Element of Work	No. of Months
KD 1	Achievement: Completing Final Design Review.	~~18~~ 2519 months
KD 2	Achievement: Deliver the Mock Up to the site	~~31~~ 2414 months
KD 3	Achievement: Completing FAI and FAT~~.~~ on the 1st trainset	~~36~~ 3643 months
KD 4	Achievement: Supply and delivery of the following Rolling Stock equipment for training purposes to the CP NS-01 Contractor at the North Depot (for Training Center Facility): - Equipment for driving simulator, - Pantograph, and - Bogie assembly for motor car including traction motor, gearbox and coupling.	~~40~~ 3548 months
KD 5	Achievement: Completion of training and delivery of Operation and Maintenance Manual.	~~48~~ 5549 months
KD 6	Achievement: Delivery of 7 trainsets (1-7) and completion of testing and commissioning thereof plus handing over.	5846 months
KD 7	Achievement: Delivery of all spare parts, consumables, special tools and jigs, plus as-built drawings.	5749 months
KD 8	Achievement: Completion of Trial Operation support and the whole of the Works.	5853 months

(3) The Contract Packages with which the Works will be required to interface are as shown below.

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SUMMARY OF KEY DATES

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TABLE 1 – KEY DATES

Key Date	Element of Work	No. of Months
KD 1	Achievement: Completing Final Design Review.	25 months
KD 2	Achievement: Deliver the Mock Up to the site	24months
KD 3	Achievement: Completing FAI and FAT on the 1st trainset	36months
KD 4	Achievement: Supply and delivery of the following Rolling Stock equipment for training purposes to the CP NS-01 Contractor at the North Depot (for Training Center Facility): - Equipment for driving simulator, - Pantograph, and - Bogie assembly for motor car including traction motor, gearbox and coupling.	35 months
KD 5	Achievement: Completion of training and delivery of Operation and Maintenance Manual.	55 months
KD 6	Achievement: Delivery of 7 trainsets (1-7) and completion of testing and commissioning thereof plus handing over.	58 months
KD 7	Achievement: Delivery of all spare parts, consumables, special tools and jigs, plus as-built drawings.	57 months
KD 8	Achievement: Completion of Trial Operation support and the whole of the Works.	58 months

(3) The Contract Packages with which the Works will be required to interface are as shown below.

- The North South Commuter Railway Project (Malolos-Tutuban) (NSCR):
  - Package CP 01 Elevated Structures, 6 Stations and Depot