

Metro Manila Subway Project Phase 1 Package CP106: E&M Systems and Track Works			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
<p align="center">Volume II, Part 2 – Employer’s Requirements b) General Requirements (ERG)</p>			
1.	00_CP106_P2_S(VI)_SOW_ER(ERG)_12 Dec 2019_FINAL (PA) Clause: 12.3 Page: ERG-49	<p>As stated in clause 12.3, the contractor is required to conduct ergonomic studies, during design phase, including rolling stock cab layout, depot accessibility, rolling stock passenger area (disability/universal access requirements), CBTC onboard cab.</p> <p>However, the design and provision of above mentioned systems are not under CP106.</p> <p>Please confirm the required ergonomic studies are outside the scope of CP106 and will be completed by other parties, not CP106.</p>	Bidder’s understanding is incorrect. It’s part of CP106 scope of works.
<p align="center">Volume II, Part 2 – Employer’s Requirements, c) Technical Requirements (ERT)</p>			
2.	02 Signaling System_12 Dec 2019 (PA) Clause: 2.3.3.5 Page: SIG-2-7	Please confirm that IEC 62278, IEC62279, and IEC62280 are not applied but referred, as long as IEC 62425 is applied. Certificate of General Application is ready to submit.	Bidder’s understanding is correct. IEC 62278, IEC62279 and IEC62280 are for reference.

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3.	02 Signaling System_12 Dec 2019 (PA) Clause: 2.4.1.4 "The safety level of TD system, ATP system with CBTC and Interlocking system (CBI) shall comply with SIL4 requirement as per IEC 61508." Page: SIG-2-10	Please confirm that SIL4 certificate as per IEC 62425, which is specific to railway industry, is accepted. Certificate of General Application is ready to submit. IEC 61508 shall be deleted as it is general requirement, not railway specific.	Bidder's understanding is correct. MMSP project will apply Common Safety Method approach for the safety assessment, therefore proven system such as Signaling SIL 4 are acceptable under existing/proven reference systems. Any change to the SIL rated systems will impact the exiting SIL rating and therefore the SIL rating will be reassessed for the re-issue of SIL certification. The IEC 61508 can be deleted as IEC 62425 is acceptable for approval of safety-related electronic systems including hardware and software for the railway signalling.

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4.	02 Signaling System_12 Dec 2019 (PA) Clause: 2.7.1 2) "The safety level of each device shall meet IEC 61508 SIL 4." Page: SIG-2-43	Please confirm that SIL4 certificate as per IEC 62425, which is specific to railway industry, is accepted. Certificate of General Application is ready to submit. IEC 61508 shall be deleted as it is general requirement, not railway specific.	Bidder's understanding is correct.
<i>General Bid Bulletin</i>			
5.	GBB 6, ANNEX B ITEM 7 ERT, 2) SIG, Section 2.5.12 Through-operation system from MMSP to NSRPSouth Page SIG 2-37	Please specify the number of tracks, track layout, locations for CBTC wayside equipment in Calamba Depot.	Provision for six (6) MMSP train stabling at Calamba Depot included. The CP106 Contractor is Design & Build, and the MMSP Contractor shall liaise with the NS-01 E&M System Contractor during detail design to develop the final Calamba Depot layout.
6.	GBB 21, ANNEX A ITEM 1 03 Telecommunication System_12 Dec 2019 (PA)	In response to the clarification requested on the original 4 security functions, there are now four new analytic filter functions and seven new VCA features requested. Those new requirement require further clarifications and detailed analysis on the limitation of the analytics	These four analytic filter functions with seven VCA features are part of original 4 security function in Vol II, Part 2, Telecom ERT. To assist with the cost estimation, refer to the explanation below from items 7 & 8.

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		<p>specified.</p> <p>With the short time frame we have to submit our offer, we would not be able to provide a cost effective solution. Hence we propose to move this requirement to the provisional sum.</p>	<p>CCTV converge study for the project should be conducted by the contractor during the detailed design to assess the type and their quantities of cameras.</p> <p>Station architecture Civil design was published for the Bidders to conduct preliminary assessment complying to the requirements detailed in the Vol II, Part 2 - Telecom ERT.</p> <p>The Analytic requirement (analytic filter + VCA) cannot move to the Provisional sum as it is part of the original Employer's Requirement published in Dec 2019. Vol II, Part 2 - Telecom ERT detail all the requirements. Furthermore, these analytic features are widely applied across the Rail Transport Industry.</p>
7.	GBB 21, ANNEX A ITEM 1 03 Telecommunication	The following specified analytic filters to overcome certain environment conditions are not common among edge based VCA Cameras.	The required VCA are commonly used in the Transport sector to overcome all Weather conditions. The MMSP Employer's Requirements

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	System_12 Dec 2019 (PA)	<p>1) <i>Rain filter to overcome extreme wet and foggy weather outdoor conditions.</i> The compliance for foggy conditions could be achieved by providing camera with intelligent defog feature to automatically adjust parameters for best pictures in foggy conditions. Our understanding is that this analytic filtering will apply only to outdoor cameras in the Depot. Please advise.</p> <p>2) <i>Image stabilization filter to overcome pole vibration</i> Please confirm if this applies to all PTZ cameras and not on fixed cameras.</p> <p>3) <i>Smoke /Cloud/shadow filter</i> Video analytics will not be immune to smoke if the smoke hide the target scene to be monitored. Please advise if it is acceptable if Immunity against smoke, cloud will be applicable only to Thermal camera adopted for cameras for VCA#9 Monitor and alarm over heating temperature.</p>	<p>intent for the Contractor to designed and deliver a Fit For purpose system for the O&M Concessionaire of MMSP for safe and reliable operation of the railway.</p> <p>Use of filters or other technology to overcome environmental conditions are to be analysed during the detailed design by the Contractor to deliver a Fit For purpose system.</p> <p>1) This Rain filter is used only on outdoor cameras for the weather conditions of the Philippines example during rainy secessions.</p> <p>2) Images stabilization filter is usually used at locations to mitigate against vibration and affecting the camera images. For example; the Depot Boundaries pole-mounted camera with long poles could face movements that CCTV affect CCTV images. Contractor to analyze</p>

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			<p>during the detailed design and propose mitigations.</p> <p>Contractor shall study the Philippines environmental conditions during the detailed design stage. Note that the Philippines have frequent typhoons and heavy rain weather conditions.</p> <p>3) The thermal camera is not required to provide a smoke filter. This smoke filter can be removed from the list and can be replaced by smoke/cloud detection that is achieved by video analytic.</p>
	<p>GBB 21, ANNEX A</p> <p>ITEM 1</p> <p>03 Telecommunication System_12 Dec 2019 (PA)</p>	<p>1) <i>Intrusion Detection: Detection of unauthorized entry into secured areas of station. Alert when there is intrusion in a certain direction.</i></p> <p>Please define which other area are consider secured areas. Other than Cash Handling & Ticket room to be monitored.</p>	<p>1) The area after security check is classified to be secured area of a Station. Technical areas shall have access control measures for authorised personnel entry only, example Ticketing Room where cash is handled. These are standard practices across railway stations.</p> <p>2) This requirement is applicable for Depot entry</p>

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		<p>2) Vehicle Detection if any: Detection of vehicles, in the Depot area. Please confirm if the requirement refer to License Plate recognition analytics</p> <p>3) Queue line Control: Indication of queue build-up in station area, and at the Entry/Exits. Please advise if the entry/exit are referring to automatic fare gate control</p> <p>4) Counter Flow: Detection of people moving in the wrong direction such as technical area (i.e. back of house) points. Please advise the criteria of people moving in wrong direction. For example, the moving of people in technical area will be designated only in one direction.</p>	<p>and exits gates only where it refers to recognition of Licenses Plate and driver seat position in a Vehicle.</p> <p>3) The following areas are classified to be potential queues build up area:</p> <ul style="list-style-type: none"> - Platforms' - near AFC machines; - TVM & Ticketing Counters - Entrance and exits of stations; - Security check area; and - Stairs. <p>4) The criteria of the counter flow of moving passengers toward a technical area in one direction is the correct example of the counter flow. The Moving of passengers in the technical area will only be in one direction. The Technical area is referring to the technical corridor and the approaching entrance boundaries of the specialised area.</p>

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		<p>Please confirm our understanding that technical area are referring to technical corridors and not inside technical rooms such as SER, mechanical room, UPS room. The movement inside the room are random normally.</p> <p>5) Asset Protection: Detecting to identify objects have been removed. Please specify the number of cameras or coverage area requires for asset protection</p> <p>6) Camera Tampering: Please specify the number of cameras or coverage area which requires to be configure with camera tampering</p> <p>7) Monitor and alarm over heating temperature Kindly advise if the requirement is to monitor certain "hot spot" coverage area or heat detection of the camera.</p>	<p>5) Paid and unpaid area shall be covered for Asset protection and at all locations where the MMSP owned assets are installed and store.</p> <p>6) The manual inspection by using large-scale video networks to detect tampering can be cost prohibitive and time consuming, for this all camera shall be configure with camera tampering Detection feature.</p> <p>7) The requirement is related to overheating and alarm notification of camera to provide status to CCTV VMS.</p> <p>Thermal detection camera is not required to</p>

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		<p>For the hot spot coverage, please specify number of cameras or coverage as it related to an analytics video performed by thermal camera.</p> <p>For detection of camera CPU over heating temperature detection, please advise if a non VCA solution will be acceptable.</p> <p>8) Overcrowding Detection Please specify the number of cameras or coverage area which requires to be configure with overcrowding.</p>	<p>achieve hot spot area. This feature can be achieved by programming smoke detection (kind of video analytic) for monitoring and raising alarm to CCTV VMS.</p> <p>Camera status - faults like overheating of CPU or failure of camera shall be send to CCTV central system).</p> <p>The requirement is related to overheating and alarm notification of camera to provide status to CCTV VMS.</p> <p>8) The coverage area which require to be configure with overcrowding are non-technical area where passenger movement is captured, here are some example for guidance only: -</p> <ul style="list-style-type: none"> • At Platforms, • Area near AFC machines • Entrance and exits of stations. • Security check area • Ticket counters

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		<p>9) Suspicious person detection</p> <p>This security function is not specified in GBB21. Please confirm if it shall be deleted from the original scope.</p>	<ul style="list-style-type: none"> • Stairs • Etc. <p>9) The security function – suspicious detection was in the original scope and not changed. It is part of four security functions of CCTV Employer's Requirements published in Dec 2019.</p>
8.	<p>GBB 22, ANNEX B</p> <p>Item 11</p> <p>Section V, Cost Centre E,</p> <p>Schedule E4 – Provisional Sums For Dispute Board's Costs, Public Relations Related Events At Site, Provision Of Assistance For Right Of Way Access And Monthly Training Of Employer's Personnel</p>	<p>In the GBB22, Linear Heat Detection System (LHDS) has been removed into the Provisional sum. However, in the Schedule E4, the amount for LHDS is missing. Please confirm.</p>	<p>Please refer to the addendum on item 1 in Annex B of GBB No.23 dated 14 Sep. 2020.</p>