



Procurement of
Design, Supply, Installation, Commissioning, Operations and Maintenance
of Intelligent Transportation Systems
in Chennai Metropolitan Area

(5th May 2022)

RESPONSE TO ADDITIONAL PRE-BID QUERIES

Employer: Chennai Smart City Limited

Country: India

Project: Installation of Chennai Metropolitan Area Intelligent Transport Systems

JICA Loan No.: ID-P270

Response to Additional Pre-Bid Queries /Addendum for Procurement of Design, Supply, Installation, Commissioning, Operations and Maintenance of Intelligent Transportation Systems in Chennai Metropolitan Area

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1	Part-1	Section II Bid Data Sheet	BDS-3	ITB 20.3 (b)	Preparation of Bids:- The fixed portion of the bid shall be adjusted by: Labour cost, Material cost, Exchange rate fluctuation, Equipment cost, CPI	Need clarity on what is the fixed portion and when the adjustment will be done i.e. at what rate of fluctuation or changes.	Fixed portion price is the total bid price submitted by bidder in the price bid. The fixed portion of the Bid Price shall be adjusted when the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Bid validity. Refer clause 20.3 of ITB-16 in RFP Part-1. The rate of fluctuations or changes will be done as per the details filled by bidder in Table A & Table B of Bidding Forms. Refer BF- 5 and BF-6 of Bidding Forms in RFP Part-1.
2	Part-2	Employer's Requirement	ER-212	Chapter 2-4 Requirements of Traffic Incident Detection System	All the analytic features shall be executed at the LPU level and shall not affect any communication interruption with Server	"All the analytic features shall be executed at the LPU or central server meeting the functional requirement of the project."	All the analytic features shall be executed at the LPU level. During design stage this may be examined further based on specific functional requirement.
3	Part-2	Employer's Requirement	17	Addendum-1, published on 08.03.2022 SI.No 110	Health status and alert for the following status but not limited, of each subsystem shall be displayed in the control room. a. Power status (Law power, UPS), b. Low battery alert, c. Cabinet door Open, Close d. Connectivity status e. Illuminator Status f. Temperature status g. Camera status h. LPU alert etc.	We understands that mentioned "Alerting & notification" functionality not related to SLVD components such as Low battery, cabinet door open/close etc. shall be in the scope of EMS application provider as EMS manages the health monitoring of the 3rd party devices. Please confirm. Same Alerting and notification functionality is mentioned in other components functional requirements also such as RLVD, TIDS, ATCC etc. in the RFP. For rest components also our understanding is same. If yes, it should be amended wherever applicable in the RFP.	RFP and Addendum Conditions Prevail.
4	Part-2	Employer's Requirement	131	Pre-bid queries SI.No 827 published on 08.03.2022	9. Evidence export TIDS central application shall be able to deliver authentic evidence to public authorities by exporting video and images to various formats, including video from multiple cameras in encrypted format with dedicated player application included.	Exporting videos/images in encrypted format is ok to ask as this includes evidential data related to infractions/incidents. But to incorporate dedicated player application while exporting is not safe practice as generally exported players are .exe (executable) files which can corrupt the evidence data as well as potable media due to virus attack while plugged in external PC/System. It is always advisable that exported evidential data shall be encrypted & can be played separately on general available or already installed players in the system. Hence, we request you to kindly amend the clause as mentioned below "TIDS central application shall be able to deliver authentic evidence to public authorities by exporting video and images to various formats, including video from multiple cameras in encrypted format."	RFP and Addendum conditions prevail. Bidder shall consider how the dedicated player application keeps security.

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5	Part-1	Addendum - 1	Page - 32, 33	Addendum - 1 dated 08-03-2022, , Clause 2.4.2 (a2)	The Bidder (single entity or JV member) shall have successfully commissioned/Go-Live Central Integrated Traffic Information & Management System (TIMS) Platform with at least two customers/ clients/ project: (1) in the last 10 years starting 1st Jan 2012 or (2) Implemented in the last 15 years starting 1st Jan 2007 and in continuous operations till date with the bidder. The TIMS platform for each customer/ client/ project should have been integrated with at least three (3) of the following subareas for a city-wide / campus-wide deployment having minimum value of USD five (5) million: • City/Campus Surveillance with at least 100 cameras/equipment • Information Dissemination with at least 15 Variable Message Signs • Red Light Enforcement System with at least 50 Stop line violation detection cameras/equipment coupled with license plate recognition • Speed Enforcement System with at least 10 speed detection devices coupled with license plate recognition • Automatic Traffic Counters & Classification devices with at least 50 equipment • Traffic Incident Detection System with at least 50 camera /equipment • Automatic Number Plate Recognition with at least 50 camera /equipment • Traffic Signal with 50 locations/junctions	We understand that Traffic Information and Management System (TIMS) referred here is the Centralised or Integrated Command and Control Center platform which is deployed in most of the Smart City/Safe City or similar projects across India/Globe with same functional, technical and Integration capabilities required in RFP documents. Please confirm.	TIMS similar projects means, projects that have been integrated with at least three (3) of the following subareas for a city-wide / campus-wide deployment. <ul style="list-style-type: none"> • City/Campus Surveillance • Variable Message Signs • Red Light Enforcement System • Speed Enforcement System • Automatic Traffic Counters & Classification • Traffic Incident Detection System • Automatic Number Plate Recognition • Traffic Signal
6	Part-1	Addendum - 1	Page - 32, 33	Addendum 1- 2.4.1, 2.4.2 (a1), (a2), (a3)	Experience for all projects for at least the last 10 years starting 1st January 2012 is acceptable	We understand that experience or projects in last 10 years where Go Live is as on date of bid submission starting from 1st January 2012 is allowed. Please confirm	Yes, your understanding is correct.
7	Part-1	Addendum - 1	Page 29	Addendum 1- 2.4 Experience and (1) Evaluation of Specific Technical Experience	(1) Evaluation of Specific Technical Experience Each item of the specific experience with Bid in Form EXP – 1 and EXP 2(a) will be reviewed and evaluated for specific technical experience for qualifying project as per 2.4.2 of section III.	1) We understand supporting documents required to be submitted are Work order/agreement & Client Go-Live certificate, please confirm. In case of scope/ price details missing in work order/client Go-Live, RFP pages/ price schedule shall be acceptable, please confirm 2) Request you to confirm in case of ongoing projects with ongoing OPEX, Go-Live certificate from client beyond 1st Jan 2021 shall be acceptable 3) In case of large ongoing projects, request you to allow CA certificate mentioning 80% CAPEX completed where client completion is missing	1. Please refer to Response to Pre-Bid Queries S. No: 300 dated 08-03-2022. 2. Yes. 3. No. Only commissioned projects are considered.
8	Part-1	Bidding Procedures	BF- TOF2	Part1 Bidding Procedures, Section IV. Bidding Forms,	The similarity of Similar project or same shall be based on the physical size, complexity, methods/technology and/or other characteristics described in Section VI, Employer's Requirements. Summation of number of small value Contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted.	We understand that project where traffic applications and scope includes ATCS/ ATCC/ ANPR/ RLVD/SVD /ITMS can be considered as TIMS project, please confirm.	TIMS similar projects means, projects that have been integrated with at least three (3) of the following subareas for a city-wide / campus-wide deployment. <ul style="list-style-type: none"> • City/Campus Surveillance • Variable Message Signs • Red Light Enforcement System • Speed Enforcement System • Automatic Traffic Counters & Classification • Traffic Incident Detection System • Automatic Number Plate Recognition • Traffic Signal

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9	Part-2	Addendum - 1	Page no 20-21	ER-17/2 Scope of Work, & Addendum - 1 dated 08-03-2022, Annexure 1-6, Chapter 4 Bill of Quantity (BOQ) 1.Supply of Plant/Equipment and Spare parts -Page No.ER-344	<p>There are two (2) Command Control Centre (CCC) shall be established for the operation of TIMS and CBS under the CITS Project.</p> <ul style="list-style-type: none"> One is for TIMS Command & Control Centre (TIMS-CCC) which will be established with Chennai Traffic Police. All necessary facilities, equipment and associated works which will make TIMS-CCC functional shall be undertaken by the Contractor. Second is CBS Command Control Centre (CBS-CCC) which will be established with the Metropolitan Transport Corporation. All necessary facilities, equipment and associated works which will make CBS-CCC functional shall be undertaken by the Contractor. 	<p>We understand RFP is seeking two individual command & Control centre one is at TIMS & other is at CBS, however we couldn't find line item of Integrated Command & Control Application Software in Break Down of Price Schedule No.2, requesting you to include the two separate line items one for TIMS and another for CBS in Chapter 4 BOQ.</p>	<p>TIMS scope includes TIMS (ITMS) platform. TIMS platform shall have access to all the data including data from CBS.</p> <p>TIMS application shall be accessible from CBS control centre too.</p>
10	Part-2	General		General	ITMS (CCC Functional Requirements) and CBS (CCC Functional Requirements)	Kindly provide the total no. of licenses required for TIMS (CCC) and CBS (CCC)	Bidder to access the total number of licenses considering total number of users and functional requirements.
11	Part-2	Employer's Requirement	ER-94	Chapter 2- Requirements of Traffic Information & Management System: Traffic Information	<p>Traffic Information: Integrated and interoperable ITS platform to collect data for analysis of congestion, average speed, density, travel time estimation from various resources:</p> <ul style="list-style-type: none"> (a) Probe data from CAD/AVL (b) Traffic information from ATCC (c) Incident information from TIDS (d) Violation information from SLVD and RLVD (e) Traffic information from external resources such as external agencies, systems and road users 	<p>Additional Clause: Chapter 4- Bill of Quantity (BOQ)- Chennai Traffic Information & Management System Command Control Centre (TIMS-CCC), Page No: ER-344: 'Traffic Data Services' to be added</p>	<p>Bidder need to study and propose the solution which meets functional requirement and SLA. Kindly refer RFP and Addendum.</p>
12	Part-2	Employer's Requirement	ER-107	Table 7-3: Functional requirement of Long term data archive:	(2) Traffic Data processed by Probe System (Link based/section-based traffic data)		
13	Part-2	Employer's Requirement	ER-127	Chapter 2-2 Requirements of Integrated Traffic Management System	(f) System shall collect probe data from CBS system, and ATCC for calculation and alert generation for city traffic congestion, density and estimated traveling time. In future, the proposed ITMS system shall be capable to integrate required Probe taxi data or any other probe data.		
14	Part-2	Employer's Requirement	ER-127	Chapter 2-2 Requirements of Integrated Traffic Management System	<p>Contractor shall implement and deliver the following systems and capabilities linked with ITMS system and shall be controlled and monitored from single location-</p> <ul style="list-style-type: none"> (a) Probe data collection and traffic information dissemination. 		
15	Part-2	Employer's Requirement	ER-138	Table 4-3: Functional Requirements of Incident Management Module	The application shall be able to automatically display the real-time traffic information (congestion level information by color-coded) in the map based view (schematic map view and GIS map view) on the video wall screen		

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16	Part-2	Employer's Requirement	ER-138	Incident Registration Function	The application shall be able to automatically receive the traffic incident information detected by TIDS and heavily congested information by Probe System	<p align="center">Additional Clause: Chapter 4- Bill of Quantity (BOQ)- Chennai Traffic Information & Management System Command Control Centre (TIMS-CCC), Page No: ER-344: 'Traffic Data Services' to be added</p>	<p align="center">Bidder need to study and propose the solution which meets functional requirement and SLA. Kindly refer RFP and Addendum.</p>
17	Part-2	Employer's Requirement	ER-138	Incident Registration Function	When the incident information is received, the application shall be able to notify the occurrence of incidents to operators displaying them on the map or making an alert.		
18	Part-2	Employer's Requirement	ER-138	Incident Registration Function	When the incident information is received, the application shall be able to automatically create the pre-register data sets including incident type, location, time and serious level,etc., and show them to operators. The application shall be able to enable operators to modify the pre-register data sets as necessary before completing the registration		
19	Part-2	Employer's Requirement	ER-140	Traffic Information Provision to Road Users	2. A map-based and easy-to-use interface shall be provided. It shall display a consolidated view of city traffic condition including the traffic status, events and weather conditions, symbolic facility, major junction etc.		
20	Part-2	Employer's Requirement	ER-140	Traffic Information Provision to Road Users	<p>3. The map-based display shall cover the entire city and be able to enlarge individual locations on the map when selected. The enlarged view shall be able to display all the details for each selected location. The information to be displayed on the map and the enlarged view shall include but not limited to the following.</p> <ul style="list-style-type: none"> ■ Traffic information on map (congestion Level by color-coded) ■ Travel time between selected locations by user ■ Event information on map (Accident construction, event etc) ■ Traffic regulation on map (Closure of load, etc) <p>As for the event information, when clicking the mark of the event, then detailed information shall be shown in the display.</p>		
21	Part-2	Employer's Requirement	ER-140	Data Analysis	Historical traffic data including ATCC, Probe analyzed data, traffic status, weather condition, construction condition, regulation and incident etc for every road segment is accumulated in database as a Big Data for analyzing. This data is delivered via a product called Traffic Stats, available through a web portal or via an API service.		
22	Part-2	Employer's Requirement	ER-141	Data Archive	Historic traffic data including ATCC, Probe analyzed data, traffic status and incident for every road segment is accumulated in database as a Big Data for analyzing. This data shall be made available on application through a web portal or via an API service.		

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23	Part-2	Employer's Requirement	ER-143	Supporting Function for Traffic Planning Function	<p>"This function is offering visualizing data by using historical data from probe system. To assist clear and fast understanding, historical data should be offered with visualization. Functions: Calculating the speed and travel route using probe data. Calculating and display as following table Between two intersections using probe data." Current average speed (between two intersections) Number of vehicles per unit of time Average time of passing intersection Congestion level of intersection Average travel time of sections "Ranking of data (duration time, number of vehicles) ordered by parameter (time{On Peak, Off Peak}, day{Weekday, holiday, day}, duration{1 month, 3 month, a half year, one year}) etc."</p>	<p>Additional Clause: Chapter 4- Bill of Quantity (BOQ)- Chennai Traffic Information & Management System Command Control Centre (TIMS-CCC), Page No: ER-344: 'Traffic Data Services' to be added</p>	<p>Bidder need to study and propose the solution which meets functional requirement and SLA. Kindly refer RFP and Addendum.</p>
24	Part-3	General Condition (GC)	GC-56	Part 3, Section IX. General Condition (GC), 14.7 Payment	<p>We request you to include the suggested clause in case the bid is submitted as JV/Consortium</p>	<p>Command Control Centre (TIMS-CCC), Page No: ER-344: 'Traffic Data Services' to be added</p>	<p>This will be discussed with successful bidder during contract signing.</p>
25	Part-2	Employer's Requirement	18	Response to Pre-Bid Queries, S. No. 1363, Page 190 of 209	<p>1363. We understand that all bandwidth charges (like internet, MPLS, P2P...etc) will be reimbursed as per actual by CSCL. Please confirm. Remarks/ Clarification by CSCL: Yes. Your understanding is correct.</p>	<p>From the mentioned clause, we understand that bandwidth is not in scope of the bidder and the cost for the same shall not be included in bid price & it shall be paid directly to TSP/ISP. However, bidder shall propose the bandwidth requirement for each solution in their technical proposal to ensure stable communication connectivity. Also Kindly note there is no provision to quote Bandwidth seperately in the Opex Schedule.</p>	<p>Cost for bandwidth shall be part of the bid. However amount will be paid to the TSP/ISP directly by CSCL at actuals as per prevailing TRAI terms & Electricity charges (power) at actuals to power generation company and same amount shall be deducted from the respective invoice submitted by the successful bidder. Also note that bidder shall quote the comprehensive operation and maintenance cost including power supply, Communication charges, equipment replacement, maintenance vehicles, spare parts, etc. as defined in the employer's requirement of this bid document. The bidder may propose any additional required items as per proposed solution under "Other Items" given in BOQ and Price schedule table.</p>

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26	Part-2	Addendum - 1	181	Addendum - 1, & Response to Pre-Bid Queries, Page 181 of 209, S. No. 1286	Revised RFP Content: 12 Pilot Implementation (a) (As per RFP) (b) (As per RFP) (c)The pilot implementation shall be done within first twelve months of mobilization. & Remarks/ Clarification by CSCL: Refer to Addendum-1, S.No: 117 dated 08-03-2022 Contractor need to demonstrate device capability on field and during design stage application level capability (parameter) shall be discussed mutually between Employer and Contrator. The pilot implementation shall be done within first nine month of mobilization.	Timeline specified for pilot implementation is contradictory in the mentioned clauses (9 months or 12 months). So we request you to kindly clarify about the timeline for implementation.	The pilot implementation shall be done within first twelve months of mobilization. Please refer S. No: 117 of Addendum - 1, Page 18.
27	Part-1	Addendum - 1	Page 32	Addendum - 1, Annexure 1-4, 2.4 Experience,	2.4.2 (a1) Specific Experience for ATCS with Subarea Formulation The Bidder (single entity or JV member) shall have successfully commissioned/ Go-Live of ATCS Systems with Subarea Formulation with at least two (2) customer/ client/ project: (1) in the last 10 years starting 1st Jan 2012 or (2) Implemented in the last 15 years starting 1st Jan 2007 and in continuous operations till date with the bidder. Each customer/ client/ project shall meet the criteria mentioned below: A. Bidder should have supplied and commissioned Central ATCS Platform for each customer/ client/ project of: (i) at least 300 Adaptive Traffic Signals integrated with Central ATCS Platform and (ii) shall be of minimum value of USD one (1) million for each customer/ client/ project. OR B. The bidder should have supplied, installed, and commissioned for each customer/ client/ project of: (i) at least 75 Adaptive Traffic Signals integrated with Central ATCS Platform and (ii) shall be of minimum value of USD Half (0.5) Million.	1. We presume Automatic subarea formulation means grouping and ungrouping of ATCS traffic controllers which is an inherent feature of ATCS application. Please confirm whether our understanding is correct. 2. We wish to inform you that customer testimonials do not specify Automatic subarea formulation, though it is part of ATCS feature. Hence we presume that the mention of ATCS system/ATCS application/ATCS Software is sufficient to establish the Subarea formulation requirement as specified in this clause. Please confirm whether our understanding is correct.	1. Yes, your understanding is correct. 2. No. It should have been implemented and bidder need to submit the details as per "(2) Evaluation of Detail Technical Solution Proposed" in EQC-7 Part 1 of RFP.
28	Part-1	Addendum - 1	32	ADDENDUM - 1 Annexure 1-4 2.4.2 (a1) Specific Experience for ATCS with Subarea Formulation	The Bidder (single entity or JV member) shall have successfully commissioned/ Go-Live of ATCS Systems with Subarea Formulation with at least two (2) customer/ client/ project: (1) in the last 10 years starting 1st Jan 2012 or (2) Implemented in the last 15 years starting 1st Jan 2007 and in continuous operations till date with the bidder. Each customer/ client/ project shall meet the criteria mentioned below: A. Bidder should have supplied and commissioned Central ATCS Platform for each customer/ client/ project of: (i) at least 300 Adaptive Traffic Signals integrated with Central ATCS Platform and (ii) shall be of minimum value of USD one (1) million for each customer/ client/ project. OR B. The bidder should have supplied, installed, and commissioned for each customer/ client/ project of: (i) at least 75 Adaptive Traffic Signals integrated with Central ATCS Platform and (ii) shall be of minimum value of USD Half (0.5) Million.	For this clause bidder has to submit four projects to get full marks. We understand that the bidder can submit Two projects in Criteria (A) and Two projects in Criteria (B) to get full marks in "Evaluation of Specific Technical Experience". Please confirm whether our understanding is correct.	Yes, your understanding is correct.

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29	Part-2	Employer's Requirement	ER-260	8 Installation Requirement, ER-260	The Contractor shall make the provision of all types of necessary Road Marking to fulfill the SLA requirement during the project period. For greater efficiency of the RLVD system the necessary road marking (such as stop line, etc) shall be done on a regular interval of at least every six months or more as required.	We request you to kindly specify the quantity of road markings requirement for every 6 months during O&M period and request you to kindly add line item for the same in price schedule.	RFP and Addendum conditions prevails. Bidder need to study and propose the solution which meets functional requirement and SLA. And if required, the bidder may propose any additional required items as per proposed solution under "Other Items" given in BOQ and Price schedule table.
30	Part-2	Employer's Requirement	ER-195	Table 8-1: Intersection improvement requirement of ATCS,	Road Marking, Signages, Footpath& Median extension	We request you to kindly add the line items for Road Marking, Signages, Footpath& Median extension along with quantities in price schedule to avoid any misinterpretation on the quantities and to bring uniformity in price estimation by various bidders.	RFP and Addendum conditions prevails. Bidder need to study and propose the solution which meets functional requirement and SLA. And if required, the bidder may propose any additional required items as per proposed solution under "Other Items" given in BOQ and Price schedule table.
31	Part-1	Addendum - 1	53-62	Addendum - 1, Annexure 1-7	Break Down of Price Schedule No.3 / Bill of Quantity - Hardware Components for TIMS and CBS command and control centre	We request you to kindly add line items for installation of each item specified in Break Down of Price Schedule No.2	RFP and Addendum conditions prevails. Bidder need to study and propose the solution which meets functional requirement and SLA. And if required, the bidder may propose any additional required items as per proposed solution under "Other Items" given in BOQ and Price schedule table.
32	Part-1	Section IV Bidding Forms	BF-12	Section IV Bidding Forms	Schedule No. 4 – Comprehensive Operation and Maintenance	We request you to kindly add line items for Cloud charges in O&M price schedule.	RFP and Addendum conditions prevails. Bidder need to study and propose the solution which meets functional requirement and SLA. And if required, the bidder may propose any additional required items as per proposed solution under "Other Items" given in BOQ and Price schedule table.
33	Part-1	Response to Pre-Bid Queries	1	Response to Pre-Bid Queries, S. No. 1, Page 1 of 209	Remarks/ Clarification by CSCL: The rates and prices quoted in the bid shall include any duties/taxes/levies applicable/payable by Contractor if any. However GST, Customs Duty or levies for works shall be reimbursed as per actuals. The bid price quoted shall not include GST, Customs duty or levies for work.	1. We understand that commercial evaluation of bid price shall not include GST, Customs duty or levies and the same need not be quoted in price schedule by the bidder. Kindly confirm whether our understanding is correct. 2. We request you to kindly specify the GST percentage (GST %) applicable for this contract.	1. Please refer to S. No: 1 of pre-bid query responses. 2. The GST norms as defined by Government of India at the time of Invoice shall be applicable.
34	Part-1	Addendum - 1	34	Addendum - 1, Annexure 1-5 2.5 Subcontractors/manufacturers, Page 34 of 134	2.5 Sub contractors - Minimum Criteria 13 Operation and Maintenance of TIMS 14 Operation and Maintenance of CBS	We request you to kindly clarify that bidders need to submit documents against this criteria only if subcontractor is chosen by the bidder for TIMS & CBS for this tender. In case the bidder has the capability to maintain the system, they can submit their operation & maintenance experience for this criteria instead of Sub contractor.	In case bidders themselves have the capability then they need fill Form SUB and Form ACK in Part-1 of RFP.

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35	Part-2	Employer's Requirement	ER-291	RFP / 5.9 Network Switch - Level 2/ ER-291 & Pre Bid Response/ Addendum /8.15 Network Switch -Level 2/ 5.9 Network Switch -Level 2/Pg. 101 of 134	LAN interface: 48 x 1/10/25-Gbps SFP+ ports and 18 x 40/100-Gbps QSFP28 ports 24-Port 10G SFP+ + 4-Port 100G QSFP28 or Port Required as per actual design	The number of ports mentioned under L2 switch specification is very much on a higher side. As per the BoQ only 24 port and 48 port L2 switch line items are provided. However as per the specification, the ports are not matching with BoQ requirement. We request to provide port requirement for L2 switch.	As per design requirement bidder need to propose the switch and quote accordingly.
36	Part-2	Employer's Requirement	ER-127	Part 2 Employers Requirements -Chapter 2-2 Requirements of Integrated Traffic Management System -ER-127	Any probe data or taxi data may require to integrate with ITMS platform without additional cost to the Employer.	We request to provide the list of applications/services which need to be integrated to factor the exact cost.	Please refer to RFP and Addendum for the integration requirements.
37	Part-2	Employer's Requirement	108	Addendum-1, published on 08.03.2022 8.3 Workstation (1 monitor)	Reliability <input type="checkbox"/> MTBF > 3 years x 365 days x 24 hours = 26,280 hours <input type="checkbox"/> MTTR < 24 hours <input type="checkbox"/> Monitoring temperature of CPU & inside casing, HD status. <input type="checkbox"/> Alerting function when faults. <input type="checkbox"/> Latest SNMP supporting	Please elaborate what exactly the requirement is.	The reliability of the workstation and monitoring its status.
38	Part-2	Addendum - 1	115	Addendum-1, published on 08.03.2022 / Annexure 2-24 / Chapter 4 Bill of Quantity (BOQ), Page no. 115 of 134	Interior works including fall ceiling, utility duct, Accessories as per requirement (Power Switch Boards, PVC Conduits, Power and Network cables, etc) (Approx. 7500 Sq. Ft)	The Consolidated area of the rooms mentioned in the RFP is higher than the area mentioned in the BoQ. Kindly clarify on the area to be considered for Interior Works	RFP and Addendum conditions prevails. Approx. size of the control center interior work is 7500 sq. ft.
39	Part-2	Addendum - 1	125	Addendum-1, published on 08.03.2022 / Annexure 2-25 / TIMS-CCC Layout Page no. 125 of 134	TIMS CCC Layout	Main Control Room Dimensions 19750 x 27150 mm is not matching with mentioned area 5746 SQ.FT and also not matching with the overall building Dimensions (18900 x 25050 mm). Kindly clarify.	Tentative layout of control room is given in Addendum-1 dated 08-03-2022. Bidder shall consider Approx. size of the control center interior work of 7500 sq. ft.
40	Part-2	Addendum - 1	125	Addendum-1, published on 08.03.2022 / Annexure 2-25 / TIMS-CCC Layout Page no. 125 of 134	TIMS CCC Layout	Kindly confirm the Washrooms marked in the Layout is not part of the Current Scope however the same will be provided fully furnished by the Customer to MSI.	Yes, your understanding is correct.
41	Part-2	Addendum - 1	115	Addendum-1, published on 08.03.2022 / Annexure 2-24 / Chapter 4 Bill of Quantity (BOQ), Page no. 115 of 134	201 Chennai Traffic Information & Management System Command Control Centre (TIMS-CCC), iii Furniture	As per Layout, the Furniture Quantities are more compared to the Number of Workstation. Kindly confirm the furnitures quantity to consider.	Tentative layout of control room is given in Addendum-1 dated 08-03-2022. Based on layout design, furniture shall be provided by the bidder.
42	Part-2	Addendum - 1	125	Addendum-1, published on 08.03.2022 / Annexure 2-25 / TIMS-CCC Layout Page no. 125 of 134	TIMS CCC Layout	Kindly Share the Autocad Layouts of the TIMS and CBS command Control center to proceed with the detailed working.	The AutoCAD layout shall be shared to a successful bidder.

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43	Part-2	Addendum - 1	116	RFP/ Chapter 4 Bill of Quantity (BOQ)/ ER-345 & Pre Bid Response: Addendum/ Annexure 2-24/ Pg. 116 of 134	Primary Internet Bandwidth (For TIMS to CBS Data Center) Secondary Internet Bandwidth (For TIMS to CBS Data Center)	Please clarify whether MPLS point to point link is required as primary and secondary connectivity not internet link from TIMS to CBS command and control centre as there is no datacentre for CBS seperately	Both TIMS and CBS has dedicated datacenter or Cloud. Please refer to A58-A62, K37 & K38 in Chapter 4 Bill of Quantity (BOQ) and Break Down of Price Schedule No.2 of Addendum - 1 dated 08-03-2022.
44	Part-2	Addendum - 1	116	RFP/ Chapter 4 Bill of Quantity (BOQ)/ ER-345 & Pre Bid Response: Addendum/ Annexure 2-24/ Pg. 116 of 134	Network Switch -Level 3 - Lot 1 Network Switch -Level 2 (24 Port) - Lot 1 Network Switch -Level 2 (48 Port - Lot 1	Kindly specify the exact quantity for these components as the bidder may assume single quantity.	Bidder need to study and propose the solution which meets functional requirement and SLA. Kindly refer RFP and Addendum.
45	Part-2	Employer's Requirement	16	RFP/ 7.2 Disaster Recovery Table 7-2: Functional requirement of Disaster recovery/ ER - 107 & Pre Bid Response/Addendum/ Pg.16 of 134	Traffic Information and Management System which will be critical for operation at a time of disaster shall be protected by replicating them on cloud / suitable DR.	Kindly mention the production capacity for the applications to be replicated in DR. For example: 50% or 100% of the application production capacity	It shall be 100%.
46	Part-2	Employer's Requirement	104	RFP/8.17 SAN Switch/ ER-122 Pre Bid Response: 8.17 SAN Switch /5.11 SAN Switch	Controllers - The switch should have autosensing, zoning, integrate Ethernet, and a serial port for communication or better as per the actual solution design	Kindly clarify what does "integrate Ethernet" mean here.	Ethernet port within the controller.
47	Part-2	Employer's Requirement	ER-344	Part 2 Employers Requirements Pg. 344 Chapter 4 Bill of Quantity (BOQ),	Please refer to Break Down of Price Schedule No. 2 in Part-1 and Chapter 4 Bill of Quantity (BOQ) in Part-2	1. As per Pre Bid Response , we underrstand that 4 nos of camera required at TIMS Control center but in the Specification it is mentioned that Dome , bullet and Fisheye camera required. Pls clarify the actual requirement.(no of Camera and the type of camera)	1. Please refer S. No: 115 of Addendum - 1, Page 18.
48	Part-2	Employer's Requirement	103	Part 2 Employers Requirements Pg. 103 CCTV surveillance at TIMS Control Centre		2. We understand that the cameras proposed at the command control center shall be connected to NVR. Hence, kindly include the NVR qty in the BOQ and provide the minimum required specification.	2. The bidder may propose any additional required items as per proposed solution under "Other Items" given in BOQ and Price schedule table.

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49	Part-2	Employer's Requirement	ER-132	RFP/ Part 2 / ER - 132/ Table 4-2: Functional requirement of ITMS Command Control Software	<p>Query: The defined base map data were requested in the previous RFP's which are mentioned below, can the same base map data extended to this project which will save resources,</p> <p>1- Request for Proposal for selection of System Integrator to "Design, Supply, Implement, Commission, Operate & Manage the Command & Control Centre "as a part of Smart City Solutions for Chennai City. RFP No. S.P.D.C.No.B1/100/2016</p> <p>2- Request for Proposal for selection of System Integrator to "Design, Supply, Implement, Commission, Operate and Manage the Chennai Safe City Solution and Cyber Forensics Lab under Safe City Project for Women's Safety in Public Places in Chennai (Nirbhaya Fund)" RFP No.C.No.MPF-1/12484/2020</p> <p>3- Request for Proposal for Selection of System Integrator to conduct "GIS Mapping of Crime Zones under Safe City Project for Women's Safety in Public Places in Chennai (Nirbhaya Fund)" RFP - Rc.No. NP/59231/2020</p> <p>Response: RFP Condition Prevails. The bidder shall assess and arrange both required data and GIS Platform. In case any data available with Employer then same will be provided to the selected bidder.</p>	Bidder may not have access to the department data. Request support from the purchaser to assess the data if any.	Yes, the Employer shall provide necessary support.
50	Part-2	Employer's Requirement	ER-132	RFP/ Part 2 / ER - 132/ Table 4-2: Functional requirement of ITMS Command Control Software	<p>Query: Please clarify whether the listed GIS layers will be provided by Chennai Smart City Ltd to the successful bidder in industry standard GIS formats OR bidder has to create these layers. Kindly confirm.</p> <p>Response: RFP Condition Prevails. The selected bidder shall assess and arrange required data for GIS Platform.</p>	Is the mentioned layers are available in Chennai smart city.	No.
51	Part-2	Employer's Requirement	ER-147	RFP/ Part 2 / ER - 147/ 4.5 Functional Requirement of Common Function Module	<p>Query: Please clarify the interval of updating the GIS Maps. Response: Bidder need to consider updating the GIS data as on when required during the entire project period.</p>	<p>1- If the online map services were used this clause may not be applicable.</p> <p>2- The updation scope will be limited to the project assets only. Pls confirm.</p>	<p>1. Bidder proposed solution shall update the data on GIS map as and when required during the entire project period.</p> <p>2. Yes, your understanding is correct.</p>
52	Part-2	Employer's Requirement	-	General Query	Bill of Quantity	We understand that there is no router specification and BoQ provided for Core and Internet router under Datacentre BoQ. Kindly provide the details of the same.	Bidder need to study and propose the solution which meets functional requirement and SLA. Kindly refer RFP and Addendum.
53	Part-2	Employer's Requirement	ER-54	RFP/ Part 2 / Part 2 Employers Requirements Pg. 54 11.1 Integration	The bidder shall consider cross functional access or viewing licenses to be considered.	We understand that the central platform is going to be TIMS platform. We need to integrate the proposed/existing system with the TIMS platform only. Kindly confirm.	Successful bidder need to integrate both proposed system and existing systems with TIMS platform.

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54	Part-2	Employer's Requirement	ER-316	Table 4-1: System functional requirement of CAD/AVL- Sr No 175	The onboard computer shall send the current location report as determined by the GPS receiver over the 3G/GPRS network to the Central System, at an interval specified by the Employer. The Employer shall be able to choose a location report interval, with a minimum of 10 seconds.	The onboard computer shall send the current location report as determined by the GPS receiver over the 3G/GPRS network to the Central System, at an interval specified by the Employer. The Employer shall be able to choose a location report interval, with a minimum of 10 seconds. The On-board computer/ SCU should send data directly to Command control center, no intermidate server is allowed. Transfer of data to third party servers/Application and diverting data from there to CCC is not allowed.	Yes, your understanding is correct.
55	Part-2	Employer's Requirement	ER-174	Volume 2, 4.1 Functional Requirements of ATCS Application,	<p>■ It shall be possible to divide the area under control into a minimum of 100 fully adaptive regions. It shall be possible to impose any operator command on all the intersections within a region, sub-area or group by a single operator instruction.</p>	<p>Most of the global ATCS solutions have a concept of Region system and Central system, where, 1 Regional system can control more than 200 intersections under 1 Region and 1 Central System can manage more than 50 Regions which makes it approx. 200x50=10000 junctions.</p> <p>Divisions can be by hardware Region, software Zones (up to 64) and Subsystems (up to 250) within each hardware Region. Hence, the total number of zones = 64x Number of Hardware Regions or the total number of Subsystems > 100</p> <p>Imposing the same command on all the junction in a region is not practical since one region can have approx. 200 intersections and traffic situtaion can never be the same on all junction. Hence we request you to please modify and limit the clause as mentioned above.</p> <p>We recommend; "It shall be possible to divide the area under control into a minimum of 64 fully adaptive regions. It shall be possible to impose any operator command on the intersections within a region, sub-area or group."</p>	The system shall provide the functional requirement of creating required subareas as per site conditions.
56	Part-2	Employer's Requirement	112	Addendum 1, Annexure 2-22	Proposed solution should have the ability to detect attacks using multiple sources: For example, detect attacks within <ul style="list-style-type: none"> •Raw traffic, •Mirrored traffic, •PCAP files, •Web server log files 	<p>Request the department to consider the mentioned clause to "Proposed solution should have the ability to detect attacks using multiple sources: For example, detect attacks within</p> <ul style="list-style-type: none"> •Raw traffic, •Mirrored traffic " <p>and remove "PCAP files, Web server log files" as inspecting the traffic from PCAP and Web Server Log files are not subjected to WAF as a solution. Raw and mirrored traffic can be inspected for malicious data to an application.</p>	Refer to Addendum-2, S.No: 12 dated 05-05-2022
57	Part-2	Employer's Requirement	112	Addendum 1, Annexure 2-22	Analysis of following application protocols: <ul style="list-style-type: none"> •HTTP and HTTPS, •XML and XML-based protocols (SOAP and other) •JSON •AMF •GWT 	<p>Request the department to consider the mentioned clause "Analysis of following application protocols:</p> <ul style="list-style-type: none"> •HTTP and HTTPS, •XML and XML-based protocols (SOAP and other) •JSON as analysis of " <p>and remove the formats as AMF and GWT should not be applicable on WAF as these are custom formats.HTTP & HTTPS, XML,JSON is much supported by WAF to provide an analysis.</p>	Refer to Addendum-2, S.No: 12 dated 05-05-2022
58	Part-2	Employer's Requirement	101	Addendum 1, Annexure 2-11	Minimum 1.76 Tbps Switch Fabric Suitable for Higher Density network or better	Minimum 960 Gbps Switch Fabric Suitable for Higher Density network or better	Refer to Addendum-2, S.No: 10 dated 05-05-2022

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59	Part-2	Employer's Requirement	101	Addendum 1, Annexure 2-11	48 x 1/10/25-Gbps SFP+ ports and 18 x 40/100-Gbps QSFP28 ports 24-Port 10G SFP+ + 4-Port 100G QSFP28 or Port Required as per actual design	48 x 1/10/25-Gbps SFP+ ports and 18 x 40/100-Gbps QSFP28 ports (or) 24-Port 10G SFP+ + 2-Port 100G QSFP28 or Port Required as per actual design	Refer to Addendum-2, S.No: 10 dated 05-05-2022
60	Part-2	Employer's Requirement	102	Addendum 1, Annexure 2-12	Minimum 1.76 Tbps Switch Fabric Suitable for Higher Density network or better	Minimum 1.44 Tbps Switch Fabric Suitable for Higher Density network or better	Refer to Addendum-2, S.No: 11 dated 05-05-2022
61	Part-2	Employer's Requirement	102	Addendum 1, Annexure 2-12	48 x 1/10/25-Gbps SFP+ ports and 18 x 40/100-Gbps QSFP28 ports or 24-Port 10G SFP+ + 4-Port 100G QSFP28 or Port Required as per actual design	48 x 1/10/25-Gbps SFP+ ports and 18 x 40/100-Gbps QSFP28 ports or 24-Port 10G SFP+ + 4-Port 100G QSFP28 or 48-Port 10G SFP+ + 6-Port 100G QSFP28 or Port Required as per actual design	Refer to Addendum-2, S.No: 11 dated 05-05-2022
62	Part-2	Employer's Requirement	102	Addendum 1, Annexure 2-12	Switch shall support IP unicast routing protocols (static, RIPv1, and OSPF). It shall support IP unicast routing for full layer3 routing between 2 or more VLANs.	Request for "RIPv1" to be changed to "RIPv2"	Refer to Addendum-2, S.No: 11 dated 05-05-2022
63	Part-2	Employer's Requirement	102	Addendum 1, Annexure 2-12	It shall support for BGP/MPLS VPN, Virtual Routing Forwarding (VRF), MPLS/BGP L3 VPN, MP-BGP, BGP v4/v4, IS-IS, IS-ISv6.	No support for IS-IS, IS-ISv6. Kindly request you to remove them	Refer to Addendum-2, S.No: 11 dated 05-05-2022
64	Part-2	Employer's Requirement	102	Addendum 1, Annexure 2-12	It shall support for IP unicast routing capability (static, RIPv1, RIPv2 and OSPFv3 protocols) to forward IP traffic through configured interfaces	Request for "RIPv1" to be changed to "RIPv2" (or) "RIPv1/ v2"	Refer to Addendum-2, S.No: 11 dated 05-05-2022
65	Part-2	Employer's Requirement	102	Addendum 1, Annexure 2-12	support for Protocol Independent Multicast (PIM) for IP Multicast routing, including PIM sparse mode (PIM-SM), PIM dense mode (PIM-DM), and PIM sparse dense mode as well as MPLS support.	There is no support for PIM Sparse-dense mode, MPLS Multicast. Kindly request to delete these features.	Refer to Addendum-2, S.No: 11 dated 05-05-2022
66	Part-2	Employer's Requirement	102	Addendum 1, Annexure 2-12	Switch shall support for Multicast VLAN registration (MVR) to continuously send multicast streams in a multicast VLAN while isolating the streams from subscriber VLANs for bandwidth and security reasons.	Request to remove this " MVR" for wider participation.	Refer to Addendum-2, S.No: 11 dated 05-05-2022
67	Part-2	Employer's Requirement	ER-213	Chapter 2-4 Requirements of Traffic Incident Detection System	CPU- Industrial or better Memory - 2 GB DDR2/DDR3 RAM better Storage - minimum 1 TB SSD The processor should be fan less type rated up to 70°	CPU- min i7 - 8 core or better Memory - 16 GB DDR2/DDR3 RAM better Storage - minimum 1 TB HDD The processor should be fan less type rated up to 70° "	Refer to Addendum-2, S.No: 13 dated 05-05-2022
68	Part-2	Employer's Requirement	ER-236	Chapter 2-6 Requirements of Speed Limit Violation Detection System	n Measurement may be made by using non-intrusive technology such as Radar integrated camera or individual radar and homologation certificate from Ministry of Traffic or equivalent department from respective country of origin, document authenticated by Indian Embassy (to authenticate that systems are legalized and tested for infractions to avoid legal issues) or Certificate from internationally accredited metrology laboratories (approved for speed calibration) is acceptable n The speed sensor/Radar OEM should have proper certifications or approvals in accordance with frequency approvals in India and Indian motor Vehicle act.	Speed measurement may be made by using certified non-intrusive sensor technology such as Radar/laser/ Video or any other appropriate certified technology for speed enforcement. Homologation certificate from Ministry of Traffic or equivalent department from respective country of origin, document authenticated by Indian Embassy (to authenticate those systems are legalized and tested for infractions to avoid legal issues) or a test report/certificate from NABL accredited Indian Laboratory / internationally accredited metrology laboratories.	Refer to Addendum-2, S.No: 03 dated 05-05-2022
69	Part-2	Employer's Requirement	ER-237	Chapter 2-6 Requirements of Speed Limit Violation Detection System	Radar and ANPR camera system shall cover at least multiple three (3) lane.	Radar/Video sensor and ANPR camera system shall covered using dedicated camera per lane.	Refer to Addendum-2, S.No: 14 dated 05-05-2022

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70	Part-2	Employer's Requirement	ER-240	Chapter 2-6 Requirements of Speed Limit Violation Detection System	Table 5-4: Hardware Requirement of LPU	CPU- min i7 - 8 core or better Memory - 16 GB DDR2/DDR3 RAM better Storage - minimum 1 TB HDD The processor should be fan less type rated up to 70° "	Refer to Addendum-2, S.No: 13 dated 05-05-2022
71	Part-2	Employer's Requirement	ER-256	Chapter 2-7 Requirements of Red-Light Violation Detection System	6.3 LPU (Local Processing Unit)	CPU- min i7 - 8 core or better Memory - 16 GB DDR2/DDR3 RAM better Storage - minimum 1 TB HDD The processor should be fan less type rated up to 70° "	Refer to Addendum-2, S.No: 13 dated 05-05-2022
72	Part-2	Employer's Requirement	ER-270	Chapter 2-8 Requirements of Automatic Traffic Counters-cum-classifier	5.2 LPU(Local Processing Unit)	CPU- min i7 - 8 core or better Memory - 16 GB DDR2/DDR3 RAM better Storage - minimum 1 TB HDD The processor should be fan less type rated up to 70° "	Refer to Addendum-2, S.No: 13 dated 05-05-2022
73	Part-2	Addendum - 1	12	Addendum-1, published on 08.03.2022	<p>4. System Functional Requirement The system should detect and record evidence of over speeding vehicles. Unmanned detection should be provided day and night. It should consist of Single ANPR grade cameras installed on the road, pole, or any other suitable structure (Capture Point Units) connected to the Central control room. It should be possible for several such Capture Point Units to be connected to the same Central control room. Vehicle speed should be detected by physical Sensor, Single 3D or 4D multi-vehicle tracking radar system. The sensors should detect any violating vehicles and give capture command to the camera for capturing images of the number plate of the violating vehicle. Single radar should be able to capture speed of vehicles on 4 lanes and can be upgradable to 6 lanes in future. Single ANPR camera shall be able to capture violating vehicle number plate for multiple lanes.</p>	<p>It is always possible to cover multiple lanes with single camera of higher resolution however this will cause poor accuracy of the system. Generally in city scenario traffic congestion is always there where multiple vehicles are moving parallelly or one behind other which causes system to skip some vehicles from capturing it's number plate. In city traffic scenario, it is always better to capture number plates lane wise to achieve better accuracy & optimum results. Therefore, we request you to please kindly amend the clause as "Radar shall cover multiple lanes up to 4 and can be upgradable up to 6 lanes in future and ANPR camera system shall cover single lane of 3.5 meters"</p>	Refer to Addendum-2, S.No: 15 dated 05-05-2022

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74	Part-2	Addendum - 1	12	Addendum-1, published on 08.03.2022	<p>n Measurement may be made by using non-intrusive technology such as Radar integrated camera or individual radar and homologation certificate from Ministry of Traffic or equivalent department from respective country of origin, document authenticated by Indian Embassy (to authenticate that systems are legalized and tested for infractions to avoid legal issues) or Certificate from internationally accredited metrology laboratories (approved for speed calibration) is acceptable</p>	<p>Clause mentioning "homologation certificate from Ministry of Traffic or equivalent department from respective country of origin" is giving undue advantage to specific foreign OEM & restricting Indian OEMs to participate. Since, asked system will going to be deployed in India in Indian scenario. Certifications asked should follow Indian standards & should be certified in India bu such laboratory who is authorised to do such testings & certificates in India. Hence, we request you to kindly amend the clause as mentioned below for better & fair participation.</p> <p>Measurement may be made by using non-intrusive technology such as Radar integrated camera or individual radar and Certificate from Indian Government agency for Speed detection Accuracy of 220 Kmph +/- 1% . The technology should have been certified/tested by a reputed Indian test laboratory or institute under central government. Such certificate/test report should be submitted along with technical bid. or equivalent Certificate from government department/ agency from respective country of origin (document authenticated by Indian Embassy to authenticate that systems are legalized and tested for infractions to avoid legal issues, in case of foreign certification) or Certificate from internationally accredited metrology laboratories (approved for speed Accuracy) is acceptable</p>	Refer to Addendum-2, S.No: 3 dated 05-05-2022
75	Part-2	Addendum - 1	17	Addendum-1, published on 08.03.2022	<p>Radar shall be capable to detect speed of vehicle from more than 90 meters.</p>	<p>From the distance of 90 meters, driver can easily see the installed system & eventually, it may slow down it's vehicle which is again prone to accident due to sudden braking. This is the only reason why video based speed violation detection system is not beneficial as they detects the speed of the vehicle in close vicinity. System should be capable enough to detect any such over speeding vehicle atleast from the distance of more than 150 meters to take proper advanatge of such high tech systems asked in the RFP. Those systems which can detect the vehicle from far distance can also be configured for capturing vehicles in close vicinity.</p> <p>Hence, we request you to kindly amend the clause as mentioned below</p> <p>"Radar shall be capable to detect speed of vehicle from more than 150 meters."</p>	Refer to Addendum-2, S.No: 16 dated 05-05-2022

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76	Part-2	Addendum - 1	12	Addendum-1, published on 08.03.2022	Measurement may be made by using non-intrusive technology such as Radar integrated camera or individual radar having homologation certificate from Ministry of Traffic or equivalent department from respective country of origin, document authenticated by Government of India to use in urban conditions. (to authenticate that systems are legalized and tested for infractions to avoid legal issues) or Certificate from internationally accredited metrology laboratories (approved for speed calibration) is acceptable	<p>Clause mentioning "homologation certificate from Ministry of Traffic or equivalent department from respective country of origin" is giving undue advantage to specific foreign OEM & restricting Indian OEMs to participate. Since, asked system will going to be deployed in India in Indian scenario. Certifications asked should follow Indian standards & should be certified in India bu such laboratory who is authorised to do such testings & certificates in India.</p> <p>Hence, we request you to kindly amend the clause as mentioned below for better & fair participation.</p> <p>Measurement may be made by using non-intrusive technology such as Radar integrated camera or individual radar and Certificate from Indian Government agency for Speed detection Accuracy of 220 Kmph +/- 1% or equivalent Certificate from government department/ agency from respective country of origin (document authenticated by Indian Embassy to authenticate that systems are legalized and tested for infractions to avoid legal issues, in case of foreign certification) or Certificate from internationally accredited metrology laboratories (approved for speed Accuracy) is acceptable</p>	Refer to Addendum-2, S.No: 3 dated 05-05-2022
77	Part-2	Addendum - 1	98	Addendum -1 dated 08-03-2022 Annexure 2-8 5.1 Image Recognition Detector and Processing Unit	<p>2. Effective pixels 640(H) x 480(V) or more 3. Resolution 2 MP or better</p>	<p>Contradictory resolutions & effective pixels have been mentioned within same component. Effective pixels & resolution compliments each other and generally both should be same. Hence, we request you to kindly make it uniform & amend as below to mitigate any confusion.</p> <p>2. Effective pixels 1920(H) x 1080(V) or more 3. Resolution 2 MP or better</p>	Refer to Addendum-2, S.No: 09 dated 05-05-2022

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78	Part-2	Addendum - 1	103	Addendum -1 dated 08-03-2022 Annexure 2-14 5.2 Speed Display (Radar Based)	7. Detection range 80 meters 10. Certification Bin certification from OEM for used LEDs in board, Govt. approval for used radar and BIS	From the distance of 80 meters, driver can easily see the installed system & eventually, it may slow down it's vehicle which is again prone to accident due to sudden braking. This is the only reason why video based speed violation detection system is not beneficial as they detects the speed of the vehicle in close vicinity. System should be capable enough to detect any such over speeding vehicle atleast from the distance of more than 150 meters to take proper advantage of such high tech systems asked in the RFP. Those systems which can detect the vehicle from far distance can also be configured for capturing vehicles in close vicinity. Hence, we request you to kindly amend the clause as mentioned below 7. Detection range - more than 150 meters Also, request you to please clarify on below point BIN & BIS certification is needed for LED display board. Kindly confirm ?	Refer to Addendum-2, S.No: 3 & 16 dated 05-05-2022
79	Part-2	Employer's Requirement	ER-318	(3) Technical specifications: 3G(GSM) modules	Temperature range -40°C to +85°C	Temperature range -15°C to +85°C	Refer to Addendum-2, S.No: 2 dated 05-05-2022
80	Part-2	Employer's Requirement	ER-318	(4) Technical specifications: 'Combi' Antenna	e. Temperature range -40°C to +85°C	Temperature range -15°C to +85°C	Refer to Addendum-2, S.No: 02 dated 05-05-2022
81	Part-2	Addendum - 1	91	Annexure 2-2 5.1 Camera Type 1 -TIDS Camera (Fixed Camera)	S.No.(15) Shutter Speed :approx.1/4s to 1/100000s	Request you to change Shutter Speed up to by 1/20,000s . 1/20,000s is sufficient to run the system .In application rarely we use shutter speed more than 1/20,000 s. Request you to Please consider it.	Refer to Addendum-2, S.No: 05 dated 05-05-2022
82	Part-2	Addendum - 1	92	Annexure 2-3 5.2 Camera Type 2 -PTZ Camera	S.No.(21) Detection Range :Min.500 meter with IR	Request you change Detection range 250 MTR with IR. It is specific to OEM. 500MTR IR in 36 X optical Zoom is available with specific OEM. Please make it generalize so that other OEMs Can participate .	Refer to Addendum-2, S.No: 06 dated 05-05-2022
83	Part-2	Addendum - 1	92	Annexure 2-3 5.2 Camera Type 2 -PTZ Camera	S.No.(22) Lens :Approx. .5~200 mm or better to achieve functionality	Request you to change lens corresponding to 36 X . The desired Lens are specific to OEM.	Refer to Addendum-2, S.No: 06 dated 05-05-2022
84	Part-2	Addendum - 1	96	Annexure 2-6 6.1 RLVD Camera (Overview Camera)	S.No.(15) Shutter Speed :approx.1/4s to 1/100000s	Request you to change Shutter Speed up to by 1/20,000s . 1/20,000s is sufficient to run the system .In application rarely we use shutter speed more than 1/20,000 s. Request you to Please consider it.	Refer to Addendum-2, S.No: 07 dated 05-05-2022
85	Part-2	Addendum - 1	98	Annexure 2-7 6.2 ANPR Camera	S.No.(19) Shutter Speed :approx.1/4s to 1/100000s	Request you to change Shutter Speed up to by 1/20,000s . 1/20,000s is sufficient to run the system .In application rarely we use shutter speed more than 1/20,000s. Request you to Please consider it.	Refer to Addendum-2, S.No: 08 dated 05-05-2022
86	Part-2	Addendum - 1	101	Pre Bid Response: 8.15 Network Switch -Level 2/ 5.9 Network Switch -Level 2 Switching bus	Minimum 1.76 Tbps Switch Fabric Suitable for Higher Density network or better	As per tender (Addendum) document network switch level 3 specification has two type of configuration (48 Port or 24 Port) . But if 24 port configuration proposed as per design the switching fabric will not match 1.76 Tbps as per switching fabric calculation.Request to remove switching fabric from specifications or ammed as per port requirement from day 1	Refer to Addendum-2, S.No: 11 dated 05-05-2022

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87	Part-2	Addendum - 1	101	Pre Bid Response: 8.15 Network Switch -Level 2/ 5.9 Network Switch -Level 2 LAN Interface	48 x 1/10/25-Gbps SFP+ ports and 18 x 40/100-Gbps QSFP28 ports 24-Port 10G SFP+ + 4-Port 100G QSFP28 or Port Required as per actual design	Network Level 2 switches does not required 10G SFP+ Ports . Please clarify is this for end device connectivity or Server connectivity (ToR/Leaf)	Refer to Addendum-2, S.No: 11 dated 05-05-2022
88	Part-2	Addendum - 1	102	Pre Bid Response: 8.16 Network Switch -Level 3 /5.10 Network Switch -Level 3, Switching bus	Minimum 1.76 Tbps Switch Fabric Suitable for Higher Density network or better	As per tender (Addendum) document network switch level 3 specification has two type of configuration (48 Port or 24 Port) . But if 24 port configuration proposed as per design the switching fabric will not match 1.76 Tbps as per switching fabric calculation.Request to remove switching fabric from specifications	Refer to Addendum-2, S.No: 11 dated 05-05-2022
89	Part-2	Employer's Requirement	ER-177	Volume 2, 4.1 Functional Requirements of ATCS Application	<ul style="list-style-type: none"> ATCS shall be able to display locations and status (Normal/Failure) of all roadside equipment such as Controllers, Communication Card- /Modem, Power, Vehicle detectors, and signals on a map-based view. 	<p>ATCS Application receives the information from Traffic Signal Controller through a suitable communication medium, getting the direct status of other roadside equipment like communication card/modem and vehicle detector is not required for adaptive operation.</p> <p>We recommend; "ATCS system shall be able to display locations and status (Normal/Failure) of Traffic Controllers and signals on GUI/map-based view."</p>	Refer to Addendum-2, S.No: 17 dated 05-05-2022
90	Part-2	Employer's Requirement	ER-177	Volume 2, 4.1 Functional Requirements of ATCS Application,	<ul style="list-style-type: none"> ATCS shall be able to graphically display the transition of subareas on a map-based view. 	<p>ATCS application should display the Stages/Phases on its GUI so that the operator can monitor the junction operation. Graphical representation of individual junction operation is required for the monitoring purpose of individual junction, also graphical representation of subareas on map based view is not possible .</p> <p>We recommend: "ATCS shall be able to graphically display the transition of Phases/Stages on a junction layout view on ATCS GUI/map based view."</p>	Refer to Addendum-2, S.No: 17 dated 05-05-2022
91	Part-2	Employer's Requirement	ER-178	Volume 2, 4.1 Functional Requirements of ATCS Application,	<ul style="list-style-type: none"> It shall be possible to inhibit remote access to the System by time of day. The access times shall be user definable and can be associated with certain levels of access. Similarly, it shall be possible to limit the remote access to the System by user at defined times of day. 	<p>Inhibiting the remote access based on time of day is not practical as the operator available in the control room must have the access to the ATCS application based on their access level. If the access is inhibited based on time of day then in case of some urgency the operators will not be able to access the system.</p> <p>We recommend: "It shall be possible to inhibit remote access to the System by operator authentication and access level."</p>	Refer to Addendum-2, S.No: 17 dated 05-05-2022
92	Part-2	Employer's Requirement	ER-179	Volume 2, 4.1 Functional Requirements of ATCS Application,	<ul style="list-style-type: none"> Shall have the functionality to supervise and control the system using web-interface so that maintenance is carried out with much ease. 	<p>To maintain security of entire ATCS system most of the proven solution do not have web browser based access to the ATCS application for the maintenance. Rather they have inbuilt application setup used for the maintenance and fully integrated with a central ATCS application.</p> <p>We recommend: "Shall have the functionality to supervise and control the system using web-interface/ATCS Application GUI so that maintenance is carried out with much ease."</p>	Refer to Addendum-2, S.No: 17 dated 05-05-2022

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93	Part-2	Employer's Requirement	ER-179	Volume 2, 4.2 Functional Requirements of Controller,	■ Shall facilitate to configure 24 Cycle Plans and the Amber Flashing / Red Flashing plan.	Traffic signal controller of global ATCS OEM's has a storage for 11x Cycle plans. When connected to Centralized ATCS system, more cycle plans can be downloaded to the traffic controller. Hence, the controller can effectively have even more than 24 Cycle plans. We recommend: " Shall facilitate to configure minimum 24 Cycle Plans and the Amber Flashing / Red Flashing plan when connected to ATCS application. "	RFP and Addendum condition prevails. Bidder need to demonstrate the requirement when controller is connected to the ATCS application.
94	Part-2	Employer's Requirement	ER-195	Volume 2, 5.11 Traffic Signal Aspect,	300mm Traffic LED aspect 24 V DC with inbuilt voltage / current regulator 400 mA max. including dust and waterproof Polycarbonate housing and clamps	Most of the global ATCS solutions support Traffic Light Aspect with 230 V AC input voltage. As per the power consumption calculation, 1 Traffic Light Aspect with 24 V DC consumes 400mA current requires 9.6 Watt power. And with 230 V AC and 9.6 watt, required current consumption is 41mA. We recommend: " 300mm Traffic LED aspect 230VAC/24 V DC with inbuilt voltage / current regulator 400 mA max. including dust and waterproof Polycarbonate housing and clamps "	Refer to Addendum-2, S.No: 18 dated 05-05-2022
95	Part-2	Employer's Requirement	ER-173	Part -2 , 8.19 Firewall/5.13 Firewall , Performance : 8	The complete solution should support should be able to scale upto 15 Gbps of Threat Prevention Throughput in Future if required by adding additional Hardware	Please remove the clause. The proposed solution can scale from day 1	Refer to Addendum-2, S.No: 19 dated 05-05-2022
96	Part-2	Employer's Requirement	ER-174	Part- 2, 8.19 Firewall/5.13 Firewall Security : 14	Solution should be able to support Firewall, IPS, Application Control, URL Filtering, AV, BOT Prevention in a single box deployment	Solution should be able to support Firewall, IPS, Application Control, URL Filtering, AV/BOT Prevention/Anti-malware in a single box deployment For protection against unknown and zero-day threats, different OEM use different approach like AV or APT and hence requesting change	Refer to Addendum-2, S.No: 19 dated 05-05-2022
97	Part-2	Employer's Requirement	ER-175	Part- 2, 8.19 Firewall/5.13 Firewall ,Security : 17	Anti-Bot application must use a multi-tiered detection engine, which includes the reputation of IPS, URLs and DNS addresses and detect patterns of bot communications. Look for C&C traffic patterns, not just at their DNS destination.	Anti-Bot/Anti-malware application must use a multi-tiered detection engine, which includes the reputation of IPS, URLs and DNS addresses and detects bot communications and look for C&C traffic . Request to clarify pattern of BOT and For protection against unknown and zero-day threats, different OEM use different approach like AV , APT, DNS protection and hence requesting change	Refer to Addendum-2, S.No: 19 dated 05-05-2022
98	Part-2	Employer's Requirement	ER-178	Part- 2, 8.19 Firewall/5.13 Firewall,Security : 19	Solution must support access control for at least 150 predefined services/protocols	Solution must support access control for at predefined services/protocols/application. Restricting with at least predefined 150 service/protocol restrict participation as different OEM have different take on the predefined rules for access control, Cisco support 4000 predefined application . Hence requesting change for broader participation.	Refer to Addendum-2, S.No: 19 dated 05-05-2022

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99	Part-2	Employer's Requirement	ER-179	Part- 2, 8.19 Firewall/5.13 Firewall ,Security : 23	Must have a dedicated client agent that can be installed by policy on users" computers that can acquire and report identities to the Security Gateway	Please remove the clause. Please clarify what is report identities ? Also this Not a functionality of firewall it is towards end point Hence requesting change for broader participation.	Refer to Addendum-2, S.No: 19 dated 05-05-2022
100	Part-2	Employer's Requirement	ER-178	Part- 2, 8.19 Firewall/5.13 Firewall ,Security : 24	Must support Kerberos transparent authentication for single sign on	Must support Kerberos transparent authentication/SAML for single sign on. Requesting change for broader participation.	Refer to Addendum-2, S.No: 19 dated 05-05-2022
101	Part-2	Employer's Requirement	ER-237	Chapter 2-6 Requirements of Speed Limit Violation Detection System	Radar shall be capable to detect speed of vehicle for more than 120 meters	Radar or video based speed detection - System shall be capable to detect speed of vehicle as per functional requirement of RFP.	Refer to Addendum-2, S.No: 16 dated 05-05-2022
102	Part-1	Addendum - 1	34	Addendum - 1 dated 08-03-2022, 2.5 Subcontractors/manufacturers,	As per the Corrigendum dated 08.03.2022, 2.5 Subcontractors/Manufacturers : Serial No 3, Minimum Criteria mentioned for TIMS Platform is Manufacturer should have supplied for two TIMS projects, which have been commissioned in last 10 years.	As the RFP is seeking Integrated Command and Control platform for TIMS Command & Control Centre we request you to kindly ammend the minimum experience criteria as below: The Integrated Command & Control Software OEM should have deployed minimum 2 project in Smart Cities/ Safe Cities / ITMS Projects / City Wide Surveillance Projects/ Defense/Central or State Public Sector Unit (PSU)/Law Enforcement Agency Verticals in India. Purchase Order Copy / Work order / Agreement / Completion Certificate from OEM need to be submitted.	RFP and Addendum conditions prevails.
103	Part-2	Addendum - 1	23	Addendum - 1, S. No. 135,	f) The Right of Way(RoW)will relate to the project roads including NH, SH, GCC and all other major and minor roads in other Local Bodies within the CMA subject to technical feasibility. 1) The Right of Way (RoW) charges (Administrative Charges, Annual Track Rent) shall be borne by the Employer. However, the Contractor is responsible for making such application & obtaining necessary approvals which shall be taken prior to commencement of the work. Price bid should be exclusive of ROW charges (Administrative Charges, Annual Track Rent) 2) The Restoration/ Reinstatement work will be carried as per the specifications specified by GCC/HMPD/NHAI/CMA. Reinstatement (RI) charges/ Restoration Charges along with any other fees applicable shall be borne by the Contractor.	To ensure fair competition and to avoid differences in consideration of Restoration/Reinstatement charges by different bidders, we request you to kindly modify point No.2 as follows: 1. Reinstatement (RI) charges/ Restoration Charges shall not be part of the price bid. 2. Reinstatement (RI) charges/ Restoration Charges paid by the bidder during implementation and same shall be reimbursed at actuals by CSCL.	RFP and Addendum conditions prevails.
104	Part-2	Employer's Requirement	ER-195	Table 8-1: Intersection improvement requirement of ATCS,	The approximate number of Signages, Road marking, Footpath and median extension is shown in the table below, however the Contractor required to perform all the necessary works based on the approved detailed design and BOQ as per the site requirement at the time of installation and approval obtained from the Engineer	We understand that the bidder has to quote for the quantities defined in the table and to supply/provide the quantities of items only once during the entire implementation period. Please confirm whether our understanding is correct.	Please refer to ER-195 Part-2 of RFP.

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105	Part-1	Addendum - 1	40	Addendum - 1, Annexure 1-6 Break Down of Price Schedule No.2	B3 Vehicle Detector Nos - 570	We request you to kindly define the quantity of vehicle detectors as "As per bidder's solution" as the quantity of vehicle detectors can vary depending on bidder's solution. Some of the OEMs propose one detector per junction instead of detector per arm in junctions. Hence we request you to kindly consider this change.	RFP and Addendum conditions prevails.
106	Part-2	Addendum - 1	105	RFP / 5.5 Industrial Grade Layer -2 Switch/ ER-214 & Pre Bid Response/ Addendum /Annexure 2-17/ 5.5 Industrial Grade Layer -2 Switch	Ethernet Interfaces: 4 x 10/100/1000 Base-T PoE+ Ports auto-negotiation Plus 4 x 1000 Base-X SFP or 2 x 10G SFP+ Uplink Slots (Should be loaded with 2 x 1G Single mode Industrial Grade Fibre Modules supports up to 10 Km) Or Better	As per the project requirement field connectivity at each junction requires not more than 30Mbps. Hence, 2X1G SFP uplink ports would be sufficient. 4X1G or 2X10G will add up the cost of switch and this will impact the overall cost.	RFP and Addendum conditions prevails.
107	Part-2	Addendum - 1	99	RFP/ 8.1 Servers/ ER - 109 Pre Bid Response: Addendum/ Annexure 2-9/ 8.1 Servers/ 5.1 Servers	Form Factor - Rack-mountable	As per the RFP and pre bid response Rack servers are proposed. Rack servers will increase the rack space, power requirement which would inturn affect the overall cost of the project. Kindly change the clause as "Rack / Blade server as per the design".	Refer to Addendum-2, S.No: 20 dated 05-05-2022
108	Part-2	Addendum - 1	100	RFP/ Part 2 Employer's Requirements / Chapter 2 Requirements of Traffic Information & Management System & Addendum 1 - Annexure 2-10	Storage Capacity should be a minimum of 50 TB (usable, after configuring in offered RAID configuration) for online and Near-line data. Or more as per solution /operation/tender requirement	Storage capacity should be designed considering the continous recording of cameras of TIDS , Transcation data of SVD & RLVD system along with events clips & images. Hence The storage capacity will be as per solution design . Pls Confirm our understanding.	RFP and Addendum condition prevails. Specification mentioned in RFP is minimum, bidder shall consider higher sizing as per functional requirements.
109	Part-2	Employer's Requirement	ER 207	RFP/ Part 2 Employer's Requirements /Table 4-1: Functional Requirement of TIDS	Manage maximum recording time for manual recordings. TID Video - Raw Data -1 Year TID Images -Raw Data-1 Year Equipment Status -Raw Data -2 years	Kindly clarify TIDS camera feed needs to be stored centrally or not .if yes pls share the storage design parameters (retention period ,FRS , Resolution , Compression type).We are not finding the storage BOQ line item for one year storage requirement in RFP. Justification: Central Data storage is mentioned as 50 TB only. Storage space considered is insufficient to accommodate the video data.	RFP and Addendum condition prevails. Specification mentioned in RFP is minimum, bidder shall consider higher sizing as per functional requirements.
110	Part-3			Part 3, Section IX. General Condition (GC), GC-56, 14.7 Payment	We request you to include the suggested clause in case the bid is submitted as JV/Consortium	For consortium partners including international partners , We request you to pay directly to the partners account to ensure financial independence for the consortium partners. This shall also enables the bidders to quote more financially competitive. Hence we request you to accept the direct payment to consortium partners.	This will be discussed with successful bidder during contract signing.
111	Bidders are requested to refer RFP, Response to Prebid queries & Addendum-1 dated 8th March 2022, and Second Response to bid queries & Addendum-2 dated 05th May 2022 for all other queries. The last bid submission date is on or before 15.00 Hrs of 23rd May 2022, as published in Corrigendum III, dated 13th April 2022.						