

Delhi Metro Rail Corporation

Tender CS54 - Design, Supply, Installation, Testing and Commissioning of Closed Circuit Television System (CCTV) including Integration with existing MMI's for Punjabi Bagh Halt Station at Line-5 (Mundka to Inderlok)

Addendum No. 1

Summary Sheet

Changes are identified by Bold & Underline and a side bar with "A1" in the text and concerned clause reference/para details briefly described below.

The related amendments have been incorporated in the relevant pages of the tender documents and the revised pages are enclosed.

S. No.	Tender Document	Page. No.	Clause No./Item No.	Addendum / Corrigendum	Remarks
1.	Notice Inviting Tender	12 of 19	'Notes' to clause 1.1.3.2	Content is modified	Replace Page 12 of 19 with page 12R of 19
2.	Chapter-2 of Volume-3 (Particular Specifications)	11 of 23	6.2.2 (8)	Content is modified	Replace Page 11 of 23 with page 11R of 23
3.	Chapter-2 of Volume-3 (Particular Specifications)	11 of 23 & 13 of 23	6.2.2(10) & 6.2.3(8)	Content is modified	Replace Page 11 of 23 with page 11R of 23 and Page 13 of 23 with page 13R of 23
4.	Chapter-2 of Volume-3 (Particular Specifications)	12 of 23 & 13 of 23	6.2.2(22) & 6.2.3(20)	Content is modified	Replace Page 12 of 23 with page 12R of 23 and Page 13 of 23 with page 13R of 23
5.	Chapter-2 of Volume-3 (Particular Specifications)	20 of 23	6.2.14	Content is added	Replace Page 20 of 23 with page 20R of 23.
6.	Reply to Pre Bid Queries /Clarification				

or

T.D.S certificates for all payments received

- iv) Copy of final/last bill paid by client.

In event of single/multiple work orders and /or purchase orders pertaining to a “Similar work” are submitted towards compliance to Minimum Eligibility criteria, same shall be considered / evaluated only if these are supported with proof/documentation of being linked to the Similar (single) work.

Please note that any certification or document required to be provided by CA must contain UDIN thereon and the particulars of certifications must be same as mentioned on document/certification and submitted to ICAI on its website which can be verified online on <https://udin.icai.org/search-udin>.

- a) **Value of successfully completed works only will be considered for qualification of work experience criteria.**

Value of Successfully Completed portion of similar work in any on-going composite work (work involving other than similar work also) up to last day of the month previous to the month of tender submission will also be considered for qualification of works experience criteria subject to completion of entire scope of Similar work in a composite work.

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- b) For completed works, value of work done shall be updated to last day of the month previous to the month of tender submission price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year. The exchange rate of foreign currency at the Selling Rate at the close of business of State Bank of India/ Reserve Bank of India/ www.XE.com on the 28 days before the latest submission date of tender shall be applicable.
- c) In case of Joint venture / Consortium, full value of the work, if done by the same joint venture shall be considered. If the qualifying work(s) were done by them in JV/Consortium having different constituents, then the value of work as per their percentage participation in such JV/Consortium shall be considered.
- d) If the above work(s) (i.e. “Design, Manufacture, Supply, Installation, Testing and Commissioning of CCTV System” and/or “Up-gradation/ modification of CCTV System with accessories including Integration of Man Machine Interface (MMI)” in Metro Environment) comprise other works, then client’s certificate clearly indicating the amount of work done in respect of the “similar work” shall be furnished by the tenderer in support of work experience along-with their tender submissions.
- e) Only work experience certificate having stamp of Name and Designation of officer along with the Name of client shall be considered for evaluation. However, if any work experience certificate has been issued prior to 01.07.2019, same shall be considered for evaluation even if it is not stamped.

B. Financial Standing: The tenderers will be qualified only if they have minimum financial capabilities as below:

- (i) **T1 – Liquidity: DELETED**
(ii) **T2 - Net Worth: DELETED**
(iii) **T3 - Profitability: DELETED**
(iv) **T4 - Annual Turnover:**

Average Annual Turnover should be $\geq 0.8X$;

X = Approx. cost of Work given in NIT

6.2.2 High Definition IP Fixed Dome Camera (Day/Night)

1.	Pick-up device	1/3" or bigger CCD/CMOS progressive scan image sensor
2.	Active Pixels	1920 x 1080p
3.	Sensitivity (@ F1.2, 30 IRE or better)	
	Colour Mode	0.25 lux
	Night Mode (Black & White)	0.05 lux
4.	Compression Technology	Two independently configurable H.264 streams: Stream 1: H.264, 1080p @ 25 FPS, Stream 2: H.264, Standard Definition (4CIF) @ 25 FPS
5.	Video resolution	1920 x 1080p, 1280 x 720p,
6.	Data Rate	64Kbps to 8Mbps
7.	Lens	3.8 mm – 8 mm
8.	Enclosure	IP66, NEMA-4 or better IP66/NEMA-4 or better
9.	POE	802.3af compliant with option of 12VDC/24VAC (dual power options)
10.	Supported Protocols	Telnet, FTP, TCP/IP, UDP/IP (Unicast, Multicast IGMP), IPv4/v6, SNMP, SNTP, RSTP, SNTP/NTP , ONVIF etc. or as required to fulfil the functional requirement of project.
11.	IR Filter	Auto, Manual, Remotely
12.	Video S/N	≥ 50dB
13.	Time	Embedded Real Time clock, NTP client
14.	Auto Gain Control	On/Off/Auto
15.	Shutter speed	1 to 1/10,000 or better
16.	Wide Dynamic Range	69 dB or better

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17.	Back Light Compensation/ Anti Blooming	On/Off
18.	White Balance	Auto/Manual
19.	Network Interface	RJ-45 connector for 10/100 BaseT auto sensing
20.	Firmware upgrade	It shall be possible to remotely upgrade the firmware of the camera
21.	Operating Temperature	-10 °C to + 50 °C
22.	Storage Temp	-20 °C to + 70 °C <u>-20 °C to + 60 °C</u>
23.	Humidity	Up to 90% non-condensing
24.	Approval (Safety& EMC Immunity, Emission)	UL/EN and FCC.
25.	Interoperability Conformance	The camera shall be ONVIF (Open Network Video Interface forum) Standards.
26.	Makes for cameras	Pelco, GE, IndigoVision, Panasonic, Bosch, Sony, Honeywell, Siemens, DvTelor equivalent subject to meeting the above specs. Printed data sheet of manufacturer to be attached with the bid proposal, clearly identifying clause by clause compliance.

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6.2.3 High Definition IP Fixed Box Camera (Day/Night):

1.	Pick-up device	1/3" or bigger CCD/CMOS progressive scan image sensor
2.	Active Pixels	1920 x 1080p
3.	Sensitivity (@ F1.2, 30 IRE or better)	
	Colour Mode	0.25 lux
	Night Mode (Black & White)	0.08 lux
4.	Compression technology	Two independently configurable H.264 streams: Stream 1: 1080p @ 25FPS, Stream 2: Standard Definition @ 25 FPS

5.	Video resolution	1920 x 1080p, 1280 x 720p, Standard Definition (4CIF/D1)
6.	Data Rate	64Kbps to 8Mbps
7.	POE	802.3af compliant and 12VDC/24VAC dual power options
8.	Supported Protocols	Telnet, FTP, TCP/IP, UDP/IP (Unicast, Multicast IGMP), IPv4/v6, SNMP, SNTP , RSTP , SNTP/NTP , ONVIF etc. or as required to fulfil the functional requirement of project.
9.	IR Filter	Auto,Manual,Remotely
10.	Video S/N	≥ 50dB
11.	Time	Embedded Real Time clock, NTP client
12.	Auto Gain Control	On/Off / Auto
13.	Shutter Speed	1 to 1/10,000 or better
14.	Wide Dynamic Range	69 dB or better
15.	Back Light Compensation / Anti Blooming	On/Off
16.	White Balance	Auto/Manual
17.	Network Interface	RJ-45 connector for 10/100BaseT auto sensing
18.	Firmware upgrade	It shall be possible to remotely upgrade the firmware of the camera
19.	Operating Temperature	0 °C to + 50 °C
20.	Storage Temp	-20 °C to + 70 °C <u>-20 °C to + 60 °C</u>
21.	Humidity	Up to 90% non-condensing
22.	Approval (Safety& EMC Immunity, Emission)	UL/EN and FCC.
23.	Interoperability Conformance	The camera shall be ONVIF (Open Network Video Interface forum) Standards..
24.	Makes for cameras.	Pelco, GE, Indigovision, Panasonic, Bosch, Sony, Honeywell, Siemens, Dvtel or equivalent subject to meeting the above specs. Printed data sheet of manufacturer to be attached with the bid proposal, clearly identifying clause by clause compliance.

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One camera shall be provided at each end of the PF and shall be able to detect any such intrusion into the track from the end of platform. Min. 2 nos. of the total cameras provided on the platform shall be provided with this functionality.

1) Protection against passengers/object falling off on the track at the station

The cameras provided on PF with this video analytic functionality shall detect a person falling on the track from the PF with generation of an alarm on the MMI.

Differential video analytics shall enable immediate detection and notification, if a person has fallen off the platform or if an object has been permanently placed on the tracks. Min. 4nos. of the total cameras provided on the platform shall be provided with this functionality..

2) Abandoned Object Detection

The cameras provided on PF with this video analytic functionality shall detect an unattended bag/object on a crowded platform specifically in off peak hours.

This video analytic functionality shall immediately detect and notify, if an object has been placed permanently on the concourse, ticketing area and in the PF. Min. 3 nos. of the total cameras provided on the platform shall be provided with this functionality..

3) It shall also be possible to detect the following events:

- a) Camera Tampering
- b) Overcrowding/Congestion Detection in Platform
- c)

4) Rule Based Detection

- a) The rule-based configuration detection engine enables applying multiple rules per camera, linking events from multiple cameras to produce an intelligent, reliable and comprehensive surveillance picture.

Including the above, a min. 15nos. of the total cameras proposed to be provided shall be configured with Video Analytic functions. Details of the cameras , their locations and the Video Analytics functionality proposed to be configured shall be submitted to the Engineer for approval during detailed design stage.

1.1.1 CCTV VIDEO SURVEILLANCE SOFTWARE

At present Bosch BVMS Version 7.5 is used as CCTV software for DMRC Line -5 (Mundka-Inderlok) corridor. The CCTV Contractor is expected/required to utilise the existing software from OEM for Central Management/Viewing Client/ NVR's etc using appropriate licenses/software. **Only Available login information related to existing CCTV System shall be provided. For any other information required for integration of the system , the contractor, if required , shall have to directly interface with OEM (i.e M/s Bosch).**

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The bidder is required / expected to study the existing system (Central Management/Viewing Client/ NVR's etc) so as to ensure that the CCTV system provided at Punjabi Bagh Halt Station is seamlessly integrated with the existing CCTV system available on Line-5 within scope of existing contract.

The existing video wall for the DMRC Line-5 (Mundka- Inderlok) corridor is installed at OCC-Metro Bhawan & CISF Control room-Shastri Park. The CCTV contractor shall interface such that view of all CCTV cameras installed for Punjabi Bagh Halt station within scope of this contract is also available on these (existing) video walls.

6.3 Power Supply System

6.3.1 All equipment of CCTV system shall work from 230 VAC single phase supply from UPS System which shall be provided by DMRC CS15 B Contractor.

Response to Pre-Bid Queries

S. no.	Volume No.	Clause No.	Tender Conditions	Tenderer's Queries	DMRC Clarifications /Addendum
1	Chapter-2 of Volume-3 (Particular Specifications)	6.2.2 (8)	High Definition IP Fixed Dome Camera (Day/Night) Enclosure:- IP66, NEMA-4 or better	IP67 is used to provide high degree of protection against Dust and rain, Splashing water. The request is to Kindly ammend it from "IP66,NEMA-4 or better" to "IP66/IP67/NEMA-4 or better."	Refer Addendum No. 1
2	Chapter-2 of Volume-3 (Particular Specifications)	6.2.2(10) and 6.2.3(8)	High Definition IP Fixed Dome Camera (Day/Night) High Definition IP Fixed Box Camera (Day/Night) Supported Protocol- Telnet, FTP,TCP/IP,UDP/IP (Unicast, multicast IGMP), IPv4/v6, SNMP,SNTP,RSTP,ONVIF etc. or as required to fulfil the functional requirement of project	NTP Client is widely used for Time synchronisation in camera's instead of SNTP and RSTP is loop prevention protocol used in Network Switches, not required in camera. Thus request you to Kindly remove RSTP and modify SNTP to NTP/SNTP or better. Request clarity for same	Refer Addendum No. 1
3	Chapter-2 of Volume-3 (Particular Specifications)	6.2.2(15) and 6.2.3(13)	High Definition IP Fixed Dome Camera (Day/Night) High Definition IP Fixed Box Camera (Day/Night) Shutter Speed:- 1 to 1/10,000 or better	Few Brands Support 1/25 (30) to 10000s in the market. The request is to kindly consider 1/25(30) to 10000 or better which is almost the same and does not have any impact on the system	No Change in Clause
4	Chapter-2 of Volume-3 (Particular Specifications)	6.2.2(22) and 6.2.3(20)	6.2.2 of PS- High Definition IP Fixed Dome Camera (Day/Night) 6.2.3 of PS- High Definition IP Fixed Box Camera (Day/Night) p Storage Temperature:- -20°C to +70°C	The temperature range upto +70 C is not required as per existing climatic condition in Delhi. Request you kindly amend this to -20 to +60 C which is generic to all brands and quite sufficient to operate in delhi Conditions.	Refer Addendum No. 1
5	Chapter-2 of Volume-3 (Particular Specifications)	6.2.14	At present Bosch BVMS Version 7.5 is used as CCTV software for DMRC Line -5 (MundkaInderlok) corridor. The CCTV Contractor is expected/required to utilise the existing software from OEM for Central Management/Viewing Client/ NVR's etc using appropriate licenses/software.	Solution offered by us is ONVIF compliant as per the international standards for inter operability and integration with the existing system can be done. However, end user has to support with login information like user name, passwords etc. and access to the existing software, as and when required and should allow open protocols for integration with existing software.	Refer Addendum No. 1