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HIGH COMMISSION OF INDIA
COLOMBO

COL/DA/025/02/CQC-01 **Dated 20.02.2026**

CORRIGENDUM-I

Reference is invited to the HCI Colombo's Tender No **COL/DA/025/02/CQC** dated **11.02.2026** for Supply and Installation of Close Quarter Combat Range 6 Rooms Containerized) for Sri Lanka Army at Colombo.

2. Technical specifications, Lab test reports & compliance matrix for the combat range are at **Annexure 'B, C & D'**

3. All other terms and conditions of the tender remain same.

High Commission of India
No: 36-38 Galle Road, Colombo

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Annexure 'B'

TECHNICAL SPECIFICATIONS: CLOSE QUARTER COMBAT RANGE (6 ROOMS)

Ser	Nomenclature	Requirement
1.	General	(a) A comprehensive solution for establishment of Modular CQCR/Kill Hut/Shoot House with Advance Target System with complete installation, functioning and maintenance. (b) The aim is to carry out room clearance drills and hone skills of own operators in room intervention techniques, engagement of hostiles in a closed environment with hostage rescue training. (c). The vendor will provide the complete structure on a fully Turnkey Basis including provision of foundation and other civil work. The user will provide required area/land, essential services like power supply and water.
2.	Pre-Qualification	(a) The firm should have prior experience in execution of modular kill houses and provide supply orders of at least 3 similar facilities created in last 3 years. (b) The firm will conduct a functional demonstration of CQCR at an already existing facility which they have executed as past performance in any Defence or Security Force of India. (c) **Defence Industrial License** The firm should have a valid Defence Industrial License for manufacturing of Close Quarter Combat Range and its sub systems (as applicable), issued by Department for Promotion of Industry and Internal Trade (DPIIT).
3.	Inner Structure – 6 Rooms	(a) There should be minimum Six rooms in the Kill Hut/Shoot House. (b) Dimensions of each room should be a minimum of 12 x 10 x 10 ft. (c) All walls should be made of panels composed of minimum 10mm AR 500 Steel armored plate on mild steel structural framing connections with bolts and anchors (S275 complaint) and minimum 30mm anti ricochet tiles applied inside of the steel surface. (d) The Modular Kill Hut/Shoot House should be safe from room to room and outside of the shoot house. (e) One wall should be desired to facilitate wall breeching panel to allow training for standard cutting and explosion breaching training through a wall. (f) All bolts should be supplied with back nuts to ensure that they do not become loose during use of the kill hut.

		(g) All adjacent plates should be placed in tight fit without gaps. (h) The structure should be modular and permit a change in the layout with minimal effort. Each room should have two movable panels of dimensions 10 x 8 ft composed of same material as walls to facilitate a change in layout, with a ceiling mounted moving wall grid system or any other mechanism for easy movement of concerned wall. (j) All exposed steel surfaces i.e, those not covered by rubber tiles should be covered by a coat of triple PUR layer 4mm. **Test Reports/Certificates:-** AR 500 Steel. The BHN of the steel is 470-530 tested as per EN ISO 6506 or IS 1500 (PI)-2019 and a certificate from NABL Accredited Lab is provided. Certificate from NABL accredited lab that the framing is S 275 complaint as per EN 10025-2 : 2004 E S 275JR will be provided. Certificate from Govt lab that the bullet proof panel has the minimum stopping power of 985 M/s and minimum 30 mm anti ricochet tiles applied inside of the steel surface. The Modular Kill Hut/Shoot House should be safe from room to room and outside of the shoot house. One wall should be desired to facilitate wall breeching panel to allow training for standard cutting and explosion breaching training through a wall. All bolts should be supplied with back nuts to ensure that they do not become loose during use of the kill hut. All adjacent plates should be placed in tight fit without gaps. **Test Reports/Certificates** :- (a) AR 500 Steel. The BHN of the steel is 470-530 tested as per EN ISO 6506 or IS 1500 (PI)-2019 and a certificate from NABL Accredited Lab is provided. (b) Certificate from NABL accredited lab that the framing is S275 complaint as per EN 10025-2 : 2004 E S 275JR will be provided. (c) Certificate from Govt lab that the bullet proof panel has the minimum stopping power of 985 M/s.
4.	Bulletproof Paneling and Anti-Ricochet Treatment of side	The walls are composed of steel panels with a minimum thickness of 9-10 mm using AR 500 steel armor plating. These panels are joined using mild steel structural framing bolts and anchors that are compliant with S275 standards. Additionally, ballistic rubber panels are required to be

	walls to trap bullets. (6 rooms and corridor)	at least 30 mm thick and weigh at least 15 kg (+/-10%) to ensure sufficient density. These rubber panels consist of high-density composite anti-ricochet particles and high- quality bonding agents, capable of withstanding a minimum of 2000 rounds distributed evenly over the surface without significant deterioration or distortion. A laboratory test certificate from an NABL accredited National/International laboratory, as specified in the attached annexure will be provided by the vendor at the time of TEC:- (a) Ballistic Test certificates of anti-ricochet wall panels from Accredited National/International Lab 10 mm AR 500 Steel Plate and minimum 30 mm anti-ricochet rubber panel will be provided. (b) Certificate from Govt lab for ballistic evaluation of composite anti-ricochet panel. The firm should provide NABL accredited lab certificates for Rubber panel for following as per globally accepted norms & suitable for the range. (i) Skid Resistance (ii) Hardness Shore (iii) Density (iv) Ground Electrical Resistance (v) Tensile Property (c) Certificates from accredited lab wrt tensile strength, flame spread rating 3, smoke spread rating 84 & microbial growth.
5.	Door Panel - 01	One room of the Modular Kill Hut/Shoot House should have one door with panel for Tactical Breach. Doors having following features:- (a) Reusable. (b) Each door must facilitate different types of forced entry including kick, rammer and explosives. (c) Should have certified bullet trap paneling/tiles capable of preventing ricochet and splash back of minimum 7.62 x 51mm amn from 5 mtr range.
6.	Corridor	(a) The corridor should run along the entire length of rooms and all rooms should have doors opening in the corridor. (b) It should be minimum 4 feet wide. (c) The flooring of the corridor will be as same as the room and the walls would be made of similar materials having same ballistic properties as the room walls.

7.	Civil Work	(a) The kill house will have an appropriate foundation of required size. (b) Specification of RCC base upto plinth level should be 1:1.5:3 (1 Cement : 1.5 coarse for sand : graded stone aggregates of 20mm size). (c) Required civil work will be as per the structural design and drawing.
8.	Anti- Ricochet Flooring rooms and corridor)	(a) Anti ricochet flooring for 6 rooms and an adjoining corridor is fitted with certified anti-ricochet tiles having a minimum thickness of 20 mm. (b) Should permit easy and wet cleaning. (c) A laboratory test certificate from an NABL accredited National/International laboratory, as detailed in the attached annexure will be provided by the vendor at the time of TEC.
9.	Catwalk	(a) It should be available on top of inner structure, so as to enable clear visual access of all rooms of the inner structure by a person standing on it. (b) It should be constructed with weather resistant, heavy duty steel and should have a rugged design. (c) Minimum width should be 3 ft and minimum load bearing capacity should be 500 Kgs. (d) Should have a modular and rugged design with suitable rails for side protection. A staircase located outside the inner structure should permit access to the catwalk without entering the inner structure.
10.	Modular Shed	(a) It should cover the entire structure of the Modular Room Intervention Cum Kill Box with a gap of at least 10 ft from the highest point of the catwalk. (b) It should be able to withstand 50 kmph wind load.
11.	Noise Cancelling Headsets	International/Nationally lab certified military grade Earmuffs that will always bring the sound level under 60-70 dB or less.
12.	Portable Targets (Multifunctional PRO Target System) - 06	The wireless battery powered target sub system should enable popping up/turning in variable time and controlled individually or in combination remotely. Hit/no hit indication to be displayed for all 6 targets on the remote control. **<u>The Target System should Consist of</u>**:- (a) Target Box Mechanism & Target Boards. (b) Wireless Remote-Control Unit. (c) Sensors. (d) 12V Battery

		Target Box & Mechanism. (a) **Modes of Operation (expose & hide).** The target should be able to move from a horizontal position from the ground i.e. zero degree to 90 degrees while the target face is square to the firer to depict a 'Pop Up' and Slice actions. The square face of the target should be able to rotate through 90 degrees on its central axis. (b) **Time to Expose Target**. 1 Sec or more. (c) **Time to Retreat Target**. 1 Sec or more. Exposure time should be controllable as under :- (i) Programmable from one sec up to at least two mins. (ii) Exposure/hide action should be controllable by pressing of switch on remote. (iii) Programmable to take particular number of hits before 'hide' action. (d) **Control Unit**. Should consist of the target control remote, with provision to see the bullet hits/no hits on the target. (i) Should be capable of controlling minimum 20 targets remotely from a distance up to 1 Km Line of Sight and the targets should pop up collectively or individually at a preprogrammed time. (ii) Should display, hits/no hits, store hits on the target. (iii) Should have a ruggedized display. (iv) Should control the entire system of various sensors of the product (motion, proximity & light). (v) Control unit should be inter compatible with all kinds of targets (ie. Pop Up, Turning and Moving) mentioned in this tender. **(e) Target Illumination for Night Firing**. (i) The system should provide controlled target illumination for night firing. (ii) The target should only be illuminated when exposed. It should simulate moonlight (dim white light),hit n target. (iii) Light should be dimmable through remote control.

13.	Linear Target System (6)	(a) Targets Should be move in the vertical or horizontal for the exposure of the target profile. The target mechanism should have two exposure settings that allow for the target to be half (firing from cover) or fully exposed. Target should be able to go from half expanded to fully expand without the need to reset back to home position. The design of this mechanism should allow the user to position it upright/sideways/upside down a wall/concrete structure. It should hav suitable mounting brackets. (b) **Material** : Stainless steel or similar material body with IP 67 or higher standard. The mechanism should have fixed military grade ports for attachments of optional accessories eg, Portable lighting system, infrared proximity sensors, and portable speakers to recreate battle atmosphere. (c) **PORTABILITY**. The target mechanism should be man portable and should not be over 10 Kgs (±25%). Size : Size should not be more than 13'.8" x 9'.8" x 31.5". (d) **TARGET REACTIONS**. Software should allow the user to adjust the behaviour of each target. The target should be programmable to expose full/half the target for a selected period of time. Min 1 seconds, max 10 minutes. (d) **POWER** 12 V battery with minimum 5 hours usage. Recharge time 3 hours maximum. Weight : 3.5 kg. (e) **WIRELESS REMOTE CONTROL** : Remote control should be able to control 12 targets individually or collectively. Should show target battery status. Switch off target remotely. Designate each target with Target ID No. Programmable by computer. Weight 500 Gm. (±10%).
14.	Virtual Target System (1)	The system must include marksmanship and judgmental training exercises and provide real time live fire shooting performance data for each shooting participant. The training system must also provide simulation training courseware allowing for advanced level combat training, such as close quarter battle (CQB) and sniper/counter sniper simulations. System must be capable of detecting live ammunition for live fire simulated training with real weapons. The system must allow for multi-system, multi-screen configurations via networking technology. The entire training system must allow for the command, control and configuration of all connected systems by one instructor, from a central control station or mobile unit. The small arms training simulator must monitor and record all trainee actions and report shot result date, system wide. The training systems must contain extensive after-action review (AAR) capabilities and will allow instructor review at any time, for all active participants. Systems must be easily configured

		for single, group and/or lane based training exercises without the need for hardware system reconfiguration. (a) **General System Requirements.** (i) All computer and display hardware are standard of the shelf components. (ii) System allows 1920x1080 HD, 1280x720 HD and multi-screen spanning. (iii) Having immersive edge bleeding self sealing target screen. (iv) System allows for multiple shooter configurations o 1 Shooter/Per Screen. o 2 Shooter/Per Screen o 3 Shooter/Per Screen o 4 Shooter/ Per Screen o 1 Shooter/Per Client (Span across all screens on client) o 1 Shooter/ Per Network (span across all screens on network) (v) All courseware is operational in all display setup. (vi) System allows for multi-system communication with the following capabilities. o Allow full control and setup of all Courseware for all clients. o Allow full camera calibration/ testing for all cameras for all clients. o Allow full control from centralised operator computer. o Allow full control from wireless tablet PC. (vii) Self sealing Rubber target projection screen. (b) **Weapons and Training Devices.** (i) System allows for live fire shot detection using real service weapons. (ii) Live fire hit detection has an accuracy of no greater than 10 mm from hit location.

(c) **General Simulation Software Requirements.**

(i) Software allows for command/control all system aspects from one station

(ii) Software has accessed the following areas from a centralized menu.

- Training courseware selection.
- Operator/user database.
- Settings and options.
- Optical hit sensor calibration.
- Target database.

(iii) Software has the ability to enable disable all external training devices.

(iv) Software has an internal operator/user database with training history.

(v) Software works from an operator desktop or wireless tablet PC.

(vi) Software has user friendly icon based graphical user interface (GUI).

(vii) Software has internal target database with target editor.

(viii) Software includes the following training modules or programs.

- Outdoor, known-distance range simulation upto 500 meters.
- Indoor, Lane-based qualification simulation with editor.
- Running/moving targets simulation with lead indicator.
- HD judgmental video scenario simulation with editor.
- Assortment of marksmanship training drills.
- Duelling and hostage training drills.

(ix) Software has a closed quarter battle (CQB) simulation training program.

(x) All training courseware must have full After-Action Review (AAR) capabilities.

(xi) All targets merged automatically adjust to the actual real-word size during training.

(xii) Software allows the operator to perform the following actions for all courseware.

- Select/modify the lane/user configuration type.
- Select/modify all shooters from the user database.
- Select/modify all courseware specific options.
- Assign registered training weapons to any shooter
- Perform weapon zeroing function for any shooter.

(xiii) Software displays all shorts and target short placement for every shooter.

(xiv) Software displays shooter screen on operator display, in real-time.

(d) **Operator/User Database.**

(i) Software has the ability to store student records.

(ii) Database allows the printing of any student record.

(e) **Target Database.**

(i) Software allows the importing of target image in all common formats.

(ii) Software allows the setting and modification of the following information:

- Real-world target width.
- Real-world target height.
- Target shoot/No shoot.
- Target name /Type.

(iii) Software allows the adding or editing of scoring zones.

(f) **After-Action Review (AAR).**

(i) Software has full after-action review.

(ii) Software allows the review playback of every short taken for all courseware.

(iii) After-action review provides the following functionality for all courseware.

- Previous /Next shot.
- Show all shots.
- Time of shot.
- Shot split time.
- Shot grouping, (specific courseware).
- Short score (where applicable).

(iv) After action review allows reviewing of enhanced AAR events for all courseware.

(v) Software allows the review of all shots/events via graphical timeline.

(g) **Lanes-based qualification range.**

(i) Software allows the creation of courses with built-in editor.

(ii) Software has realistic shooting range visuals.

(iii) Software has selectable range backgrounds.

(iv) Software has adjustable lighting within editor or real-time.

(v) Software has a “manual mode” allowing target control in real time.

(vi) Software allows the display of shot groupings with group size in AAR

(h) **Outdoor Known-Distance Range Simulation.**

(i) Software allows the creation of courses with built in editor.

(ii) Software allows target distance up to 500 metres.

(iii) Software has hyper realistic weather effects including:

- Multiple snow levels (off, light, Moderate, Heavy).

		○ Multiple rain levels (off, light, moderate, heavy). ○ Fog (off, light, moderate, heavy) (iv) Software has adjustable wind speed and direction. (v) Software has adjustable time of day. (vi) Software has adjustable season.
15.	Control Room.	Control room should be integrated with the Kill house The control Room has master/central control for all systems installed. The monitor has the facility to see the firers, ensuring effective supervision and command execution by which he can monitor performance and ensure safety of all participants. (a) One internationally /nationally accredited master computer with a heavy -duty printer preferred HP/Dell/Wipro. In addition, internationally /nationally accredited 42 inches LED monitors for instructor to watch feed from all CCTV cameras located in the firing range. (b) Communication system interface with each room which is also have a central announcement system. (c) Control room is air conditioned to maintain ambient temperature in all-weather conditions. (d) The Centralized control computer is able to control the targets and shooting program. Following master controls will also be a part of the overall central control mechanism:- (i) All Targets. (ii) Lighting System. (iii) CCTV (iv) PA system
16.	Lighting	(a) Lighting will be uniform over the entire area of CQCR/ Kill House with external and internal lights and ensure lux level of minimum 300 Lux in 4 rooms and Control Room. (b) Four high mast lights will be located in four corners of the external structure to light up the catwalk. (c) All lights will be controlled by the software-controlled lighting system with 6 preset settings from Very High to Very Low, to simulate all kinds of scenarios and conditions such as inclement weather, simulating morning, day, dusk and night.
17.	Fire Fighting Equipment	It should have CO2 based fire extinguishers in the Modular Kill Hut/Shoot House area and in control room.
18.	Wiring, Electrical fitting, Cabling, Switches and fire suspension systems.	Complete Wiring, Earthing, Fire Protection, Electrical fitting, Cabling, Switches and fire suspension systems.

19.	PA System	Public Address system and other audio systems to help trainers to communicate with all trainees as well as give them the ability to introduce sound effects into house, enhancing the reality of the training.
20.	CCTV System	(a) The Modular CQCR Cum Kill House has a complete CCTV system covering all rooms and all corridors with a minimum of two cameras in each room. (b) A suitable LED screen is provided in the control room for monitoring. (c) Cameras have protective housing.
21.	AK 47 series conversion kit/Replica Weapon – 6 Nos. 7.62 mm Non-Lethal Training Cartridge (Red/Blue) - 1,000 Nos.	The weapon system featuring an off centre firing pin to allow for the requirements of making sure that a live round is not accidentally fired. The Marking Cartridge is a 7.62mm x 39mm non-lethal round for firing from AK47 style weapon, converted for use with Marking Cartridges. The Marking Cartridge is comprised of a multiple piece cartridge case that expands to cycle the weapon.
22.	Training	Appropriate training to the user, range instructions and the maintenance staff on site as part of the installation should be provided.

Annexure 'C'

LAB TEST REPORTS REQUIRED

S No	System/ Sub System	Certificates/ Standards
1.	Range Design & Construction - Steel Plates	Material Hardness test certificate for AR-Grade Steel tested as per IS 1500 (Part-1) / EN ISO 6506-1, issued by NABL accredited Laboratory
2.	Bullet Trap Assembly	Ballistic Evaluation Report issued by Government of India accredited forensic laboratory, validating bullet absorption capability
3.	Bullet Trap - Surface Preparation / Paint	Surface Preparation / Paint Test certificate as per SSPC-SP6, issued by NABL accredited Laboratory
4.	Bullet Trap - Anti-Ricochet Panels	Ballistic Evaluation Report from Government of India Accredited Laboratory
5.	Side Wall Anti-Ricochet Panels	Ballistic Evaluation Report from Government of India Accredited Laboratory
6.	Floor Panels	Ballistic Evaluation Report from Government of India Accredited Laboratory
7.	Ceiling Baffle Panels	Ballistic Evaluation Report from Government of India Accredited Laboratory
8.	Steel Plates - Baffles / Structural Elements	Hardness (BHN) test certificate for steel plates as per IS 1500 / EN ISO 6506-1, issued by NABL Accredited Laboratory
9.	Acoustic Panels	Flame Spread Test Certificate as per BS 476 Part-7 (Class 1) from NABL Accredited Laboratory
10.	Acoustic Performance	Sound level reduction test report issued by NABL Accredited Laboratory
11.	Ventilation System	Design Qualification (DQ) document indicating compliance basis with NIOSH ventilation guidelines
12.	Ventilation Ducting & Air Distribution	Design and construction in line with SMACNA standards, documented in system design

Annexure 'D'

COMPLIANCE MATRIX

S No	NIT Para/ Sub-Para	Compliance/ Partial Compliance/ Non-Compliance	Remarks
General Compliance to All Terms & Conditions of NIT (Para 1 to 12 including all Sub-Paragraphs) *(Bidder to submit Acceptance/ Compliance to each Para/ Sub-Para of NIT and write NA where compliance is not implied)*			
Compliance to Eligibility/ Pre-qualification Criteria as per Annexure A of NIT *(Bidder to submit Acceptance/ Compliance to each S No from 1 to 1.11 and furnish Certificates/ Undertakings as applicable)*			
Compliance to Technical Specifications as per Annexure 'B' *(Bidder to submit compliance to each aspect individually from S No from 1 to 22 (each Sub Point separately) and indicate Technical Specification of his equipment in the Remarks Column)*			
Confirmation of Lab Test Reports as per Annexure 'C' *(Bidder to submit confirmation on each test alongwith a copy of the report. Confirmation to be stated in the compliance column)*			