



NOTICE

This documentation has been reviewed by the technical authority and does not contain controlled goods.

AVIS

Le présent document a été examiné par l'autorité technique et ne vise pas de marchandises contrôlées.

TECHNICAL AND MANAGEMENT PROPOSAL REQUIREMENTS AND EVALUATION PLAN FOR THE MODULAR INDOOR RANGE

1. SCOPE

1.1 Purpose

This document describes the technical and management proposal requirements and bid evaluation plan for the modular indoor range.

1.2 Instructions

The Crown will assess the proposal in accordance with the following instructions and criteria as detailed within this document. The following instructions apply:

- a. Mandatory requirements are identified by the word "must". All mandatory requirements must be met in order to be responsive with the requirements;
- b. Desirable requirements are identified by the word "desirable". It is not required that desirable requirements are satisfied for a proposal to be responsive with the requirements. Upon contract award all desirable requirements offered to be met must become mandatory; and
- c. Bids will be assessed as:
 - i. "Responded" if the bid include information indicating compliance with the evaluated criteria; and
 - ii. "Non-responsive" if the information included does not indicate compliance with the evaluated criteria or there is no information included in the bid to indicate compliance.

1.3 Terminology

The following terms provided are applicable:

- a. "Range" will be used in place of "pre-fabricated modular indoor range";
- b. "Firing Point" is defined as the point at the beginning of a lane a shooter holds the muzzle of their weapon over when shooting at targets from the shooting stall;

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- c. “Firing Line” is defined as the straight line a shooter holds the muzzle of their weapon over when shooting at targets from their shooting stall. The firing line is parallel to the floor and perpendicular to the direction of fire; and
- d. “Shooter” is defined as the personnel utilizing the range with either live fire or simulated-fire weapons.

1.4 Standard Evaluation Criteria

The following standard evaluation criteria must be satisfied when referenced in the Proof of Response.

- a. Criteria A – Example: Examples of previous solutions must be accompanied by the following information:
 - i. Name of Purchaser, Operator, and Owner;
 - ii. Installation Date;
 - iii. Note if range is still in operation or date range was closed down;
 - iv. Contract Number;
 - v. A Photograph or drawing, at least 10 cm x 15 cm (4”x 6”) of the relevant system or drawings;
 - vi. Contact information (for verification)
- b. Criteria B – Drawing: Drawings must:
 - i. Be to scale and state the scale;
 - ii. Be at least 15 cm x 20 cm (6” x 8”) or larger;

2. TECHNICAL AND MANAGEMENT EVALUATION

The evaluation will be based upon the manufacturer’s experience, the preliminary design provided with the proposal, and the information provided with the proposal. Proposals which fail to provide all the information specified in the Table 3 - Proposal Information Responsive Table will be deemed non-complaint and be given no further consideration. Bidders are requested to complete the “Bid Proposal Reference” column. Table 1 – Example Proposal Information Responsive Table is provided as an example. The information provided in the proposal must meet requirements outlined, and demonstrate compliance with the specification outlined in Volume 2 Annex C - Specifications. Where drawings are required the proposal may include one or more drawings to be responsive with one or multiple requirements.

2.1 Desirable Criteria Point Valuation

Proposals which provide the information required and meet the minimum proof of response will be assigned points based on the features and specifications of the solution offered, as outlined in Table 4 - Desired Criteria Point Valuation. Proposals must meet all requirements of a desirable criterion for points to be awarded. Table 2 - Example Proposal Desirable Criteria Point Valuation Table is provided as an example. Bidders are requested to complete the “Bid Proposal Reference” column. Bidders may complete the “Points Awarded” and “Notes” columns to assist the Crown’s evaluation team.

Table 1 – Example Proposal Information Response Table

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
[Example: Vol 2 Annex C –Para 3.5: Shooting Lanes]	[Example: Proposal must include: 1. Layout drawing of the range which: a. Highlight any lane walls; b. Shows locations of all floor markings; c. Shows lane height and width; d. Shows the position of the shooting stall; and e. Shows the position of the farthest firing point and distance from the firing line.]	[Example: Proposal document Annex C – Range layout drawings. Page 14 of 30, Page 15 of 30]		

Table 2 - Example Proposal Desirable Criteria Point Valuation Table

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
[Example: Vol 2 Annex C – Para 3.10.1.1 b) ii]	[Example: The proposal demonstrates the range control system tracks standby status]	[Example: 30 pts]	[Example: Proposal Document Annex C. Page 2 of 50]		

Table 3 - Proposal Information Response Table

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.1: In Service Design	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. State the range manufacturer; 2. State the years of experience the manufacturer has; 3. Include at least 2 examples of ranges designed and built by the manufacturer that are based on the same design as the proposed solution, including at least: <ol style="list-style-type: none"> a. The information required by Criteria A – Example; 4. State the years of experience the bidder has; 5. Demonstrate the range will be new and unused. 			
Vol 2 Annex C – Para 3.2: Ballistic Requirements	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. List the ammunition calibers the range is designed for and will be certified compatible with, by the manufacturer. 			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.2.3: Ballistic Protection Coverage	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Demonstrate how the design will fully contain all projectiles fired from any point in the shooting area, including projectiles fired: <ol style="list-style-type: none"> a. Up towards the ceiling and all angles from parallel to perpendicular to the floor; b. Towards any door; c. Towards the floor; d. Downrange; and e. Back towards the control; 2. Demonstrate how the design satisfies the conditions of Zero-Surface Danger Zone; 3. Include a Bill of Materials for components contributing to the ballistic protection and containment; 4. State the design features included prevent ricochets, including: <ol style="list-style-type: none"> a. Materials used; and b. Surface angles included. 5. Include an example of a previously manufactured range with a similar design features, including the information stated in Criteria A – Example. 			
Vol 2 Annex C – Para 3.3: Lead Contamination Control	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. List the equipment, accessories and design features provided to limit lead exposure and control lead contamination. 			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.4: Configuration	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. State the number of shooting lanes; 2. Include a drawing showing the layout of the shooting lanes and area; 3. Identify on a drawing the bullet trap area; 4. Identify on a drawing the open preparation area; 5. Identify on a drawing the control room; 6. Identify on a drawing the storage room; 7. Show the layers of the wall separating the shooting area from the control room, and identify their function; 8. Identify and show the range exterior dimensions, including the outer roof, and all exterior equipment and components; 9. Identify and show the range exterior dimensions, including and excluding the outer roof; and 10. Identify and show the range interior dimensions, including any wall opening <p>Drawings provided must meet Criteria B - Drawings</p>			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.5: Shooting Lanes	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Identify on a drawing the firing line; 2. Identify on a drawing the distance from the firing line to the farthest target distances; 3. Identify on a drawing the width and height of each shooting lane; 4. Identify all interior walls (including shooting walls) and vertical supports; and 5. Identify the distance between the walls and wall thickness <p>Drawings provided must meet Criteria B - Drawings</p>			
Vol 2 Annex C – Para 3.6: Shooting Stall	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. State the requirements outlined will be met; and 2. Provide examples of previous range stall solutions similar to the design offered and containing at least 3 of the criteria outlined in Annex C – Para 3.6 a through k 			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.7: Target Retrieval System	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Include a separate brochure of the target retrieval system offered, from the manufacturer of the target retrieval system; 2. Identify in a drawing the travel distance and minimum rail height clearance for the target retrieval system; 3. State the target rotation (in degrees) of the retrieval system; 4. State the rotation time of the retrieval system; and 5. State the movement speeds offered by the retrieval system. <p>Drawings provided must meet Criteria B - Drawings</p>			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.8: Bullet Traps	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. State the type of bullet trap design provided; 2. Provide at least two separate examples of ranges built by the manufacturer using the same bullet trap design, including examples of the trap 3. Identify all vertical obstructions or supports in the bullet trap which could be struck by a round; 4. Provide a description of the trap, the method for capturing, decelerating and containing rounds; 5. Describe the system, and method used to capture and filter airborne lead particulates, including stating any integration with the shooting area HVAC. 6. State the round capacity of the trap (per trap and per lane). 7. Identify on a drawing the bullet trap maintenance access doors; and 8. Confirm any secondary material required to capture and collect rounds and lead dust particles. 			
Vol 2 Annex C – Para 3.9: Open Preparation Area / Shooting Gallery	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Identify on a drawing and show the dimensions for the Open Preparation Area / Shooting Gallery. <p>Drawings provided must meet Criteria B - Drawings</p>			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.10: Control Room	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Identify on a drawing of the range, the control room, and specify the dimensions; 2. Include a separate brochure or documentation describing the Range Control System, which: <ol style="list-style-type: none"> a. Demonstrates the master stop function disengages the range from live status; b. Identifies that the range control system can monitors access points; c. Demonstrates the screen and the control systems ability to monitor the ventilation systems. 3. Include an example of an installation of the proposed range control system or the previous software version; and 4. Include a brochure and documentation describing the range communication and sound system, including the main components. <p>Drawings provided must meet Criteria B - Drawings</p>			
Vol 2 Annex C – Para 3.11: Storage Area	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Identifies on a drawing of the range, the storage room and the access doors. <p>Drawings provided must meet Criteria B - Drawings</p>			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.13: Doorways	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. A drawing showing the dimensions of all doorways, and identify the armor plating and direction of swing. <p>Drawings provided must meet Criteria B - Drawings</p>			
Vol 2 Annex C – Para 3.14: Fire Protection System	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Identify on a drawing the Fire Zones; 2. Identify on a drawing the proposed locations of the emergency shut off valves for each Fire Zone; and 3. Describe how the fire separation barriers between each fire zone is created, including: <ol style="list-style-type: none"> a. Listing all the wall layers and design features contributing to the 1-hour fire protection rating of each barrier, and their individual fire protection ratings ; and b. Showing the calculations and the resulting fire protection rating of each barrier. <p>Drawings provided must meet Criteria B - Drawings</p>			
Vol 2 Annex C – Para 3.15: Environmental Conditions	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. State the exterior operating temperatures and environmental condition ranges. 2. Describe the HVAC system for each section of the range, including the filtration for each system, the intended fresh air make-up, the operating temperature ranges, and temperature ranges the system can produce. 3. State the HVAC system features and components used to obtain laminar flow. 			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
	<p>4. Describe the Air Filtration system and all its stages, including stating the filter rating at each stage.</p> <p>5. Include at least 2 examples of ranges, utilizing the same or similar flow creation features and filtration features, and meeting the minimum flow rate constructed by the manufacturer, including :</p> <ul style="list-style-type: none"> a. The information stated in Criteria A – Example; and b. Stating the air flow rate of the examples. <p>6. List the range building envelope layers and components which contribute to sound dampening, and demonstrate that the range will meet the requirement, including calculations showing the theoretical sound reduction of the range between the shooting area and exterior; and</p> <p>7. Include at least 2 examples of ranges, utilizing the same or similar sound damping features, constructed by the manufacturer, including</p> <ul style="list-style-type: none"> a. The information stated in Criteria A – Example; and b. The sound reduction levels measured outside the example ranges during full use. 			

Requirement	Proof of Response	Bid Proposal Reference	Responded (Y/N)	Notes
Vol 2 Annex C – Para 3.17: Design and Construction	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Include a drawing showing the roof, identifying the roof slope (as applicable) and dimensions; 2. State each insulation rating for the range floor, ceiling and walls; and 3. State the ratings, materials, design used to achieve the insulation ratings being provided, including the calculations showing the total resulting insulation rating for the ceiling, floor and each exterior wall. 			
Vol 2 Annex C – Para 3.18: Simulator System Compatibility	<p>The proposal must:</p> <ol style="list-style-type: none"> 1. Include on a drawing, the proposed standing location of shooters interacting with the simulator system; and 2. Include on a drawing the proposed location of the simulator image screen installation; <p>Drawings provided must meet Criteria B - Drawings</p>			

Table 4 - Desired Criteria Point Valuation

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C	The proposal meets all the mandatory criteria outlined in Table 3 - Proposal Information Response Table	2000 pts			
Vol 2 Annex C Para 3.2.1	<p>The bid proposal includes:</p> <p>a. A list of the lead-free ammunition (including manufacturer, make and model) the range will be compatible with or without an increase in maintenance costs; and</p> <p>b. Specifications and brochures for each listed ammunition, including the ammunition ballistic properties.</p>	40 pts			
Vol 2 Annex C – Para 3.4.1 a)	<p>The proposal includes a statement identifying the open concept shooting area.</p> <p>The drawings provided for the range demonstrate the range will have no shooting lane walls</p> <p>Drawings provided must meet Criteria B - Drawings</p>	1200 pts			

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C – Para 3.4.1 a) i	<p>The proposal demonstrates:</p> <ol style="list-style-type: none"> 1) The secondary directions of intentional shooting; 2) Which side walls are used for the secondary directions of intentional shooting; and 3) The minimum perpendicular distance to the side walls that a shooter can safely shoot at the side wall. 	<p>One side wall enables up to 90 degrees and a perpendicular secondary direction of shooting = 300 pts</p> <p>Both sides walls are used to enable up to 180 degrees of shooting = 700 pts</p> <p>Max = 700 pts</p>			
Vol 2 Annex C – Para 3.4.1 a) i 3	The proposal demonstrates that the side walls designed to be used a secondary directions of intended fire have ammunition collection bins at the base.	40 pts			
Vol 2 Annex C – Para 3.4.1 b)	<p>The drawings provided with the proposal demonstrate the range includes 9 or more shooting lanes. The number of lanes is clearly marked.</p> <p>Drawings provided must meet Criteria B - Drawings</p>	<p>9 lanes = 700 pts</p> <p>10 lanes = 800 pts</p> <p>11 lanes = 900 pts</p> <p>12 lanes = 1000 pts</p> <p>Max = 1000 pts</p>			

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C – Para 3.4.1 c)	The drawings provided with the proposal demonstrate the size and location of the vestibule	20 pts			
Vol 2 Annex C – Para 3.4.1 d)	<p>The proposal:</p> <p>a. Demonstrates the range is provided with a shot counter;</p> <p>b. Specifies the accuracy of the shot counter;</p> <p>c. Describes the components of the shot counter;</p> <p>d. Includes a test report verifying the accuracy of the shot counter and compatibility with the ammunition and fire rates specified.</p>	30 pts			
Vol 2 Annex C – Para 3.4.1 e)	The proposal demonstrates the range interior ceiling height meets the desirable requirement	50 pts			
Vol 2 Annex C – Para 3.5.1 a)	The proposal includes a drawing showing the number of lanes walls	1 less than the max = 10 pts 2 less than the max = 20 pts Max = 20 pts			
Vol 2 Annex C – Para 3.5.1 b)	The drawings provided with the proposal demonstrates the lane width for all the shooting lanes	Width \geq 1.4 m = 50 pts Width \geq 1.75 m = 70 pts Max = 70 pts			

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C – Para 3.5.1 c	The proposal demonstrates the range has a distance between each wall and adjacent lane(s) of at least 1.25 m	20 pts			
Vol 2 Annex C – Para 3.7.1 a	The proposal: 1) Includes a separate brochure of the target retriever; and 2) Demonstrates the retriever is wireless	40 pts			
Vol 2 Annex C – Para 3.7.1 b)	The proposal demonstrates the target retriever can edge or back in response to a hit or number of hits on the target	20 pts			
Vol 2 Annex C – Para 3.7.1 c)	The proposal demonstrates the target retrieval system includes at least two redundant drive motors for each retriever	20 pts			
Vol 2 Annex C – Para 3.7.1 d)	The proposal demonstrates the target retriever is capable of holding targets at multiple heights, without special tools, and within the time required,	10 pts			
Vol 2 Annex C – Para 3.7.1 e)	The proposal demonstrates the retriever has back lighting	5 pts			

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C – Para 3.8.2 a)	<p>The proposal:</p> <ol style="list-style-type: none"> 1) Identifies the equipment and method used to indicate trap available capacity; and 2) Includes at least one example of a range manufactured by the manufacturer that utilizes a similar method, or clearly states if the proposed solution is new to the manufacturer. 	50 pts			
Vol 2 Annex C – Para 3.8.2 b)	The proposal demonstrates the range will utilize a rubber mound bullet trap	400 pts			
Vol 2 Annex C – Para 3.8.2 c i)	<p>The proposal includes:</p> <ol style="list-style-type: none"> a) At least one example of a previous solution utilizing the same mound design; and b) A drawing of the mound showing the stepped bed plates. <p>Drawings provided must meet Criteria B - Drawings</p>	20 pts			
Vol 2 Annex C – Para 3.8.2 c ii)	The proposal demonstrates the location, function, and capacity of the back-up safety rubber source	30 pts			

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C – Para 3.8.2 c iii)	The proposal demonstrates the maximum round capacity including calculation of the round capacity per lane round capacity.	Per lane round capacity between (inclusive): 5,001 - 7,500 = 10 pts 7,501 - 10,000 = 15 pts 10,001 - 12,500 = 20 pts 12,501 – 15,000 = 25 pts 15,001 or greater = 40 pts Max = 40 pts			
Vol 2 Annex C – Para 3.10.1 e	The proposal indicates that all sound from exterior to the control room is lowered to below 71dB	50 pts			
Vol 2 Annex C – Para 3.10.1.1 a)	The proposal: a) Indicates the number of auxiliary audio 3.5 mm audio ports provided; and b) Demonstrates that each signal can be output to an individual lane.	50 pts			
Vol 2 Annex C – Para 3.10.1.1 b) i	The proposal demonstrates the range control system tracks “live” status	20 pts			
Vol 2 Annex C – Para 3.10.1.1 b) ii	The proposal demonstrates the range control system tracks “standby” status	20 pts			

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C – Para 3.10.1.1 b) iii	The proposal demonstrates the range control system tracks “maintenance” status	20 pts			
Vol 2 Annex C – Para 3.10.1.1 b) iv	The proposal demonstrates the range control system tracks” preparation / setup” status	15 pts			
Vol 2 Annex C – Para 3.10.1.1 b) v	The proposal demonstrates the range control system tracks “closed” status	15 pts			
Vol 2 Annex C – Para 3.10.2.1 a)	The proposal include a brochure for the ear defenders provided (1-way communication)	20 pts			
Vol 2 Annex C – Para 3.10.2.1 b)	The proposal include a brochure for the ear defenders provided (2-way communication)	40 pts			
Vol 2 Annex C – Para 3.10.2.1 c)	The proposal demonstrates the range can output lane specific sound for different lanes to multiple ear defenders simultaneously	30 pts			
Vol 2 Annex C – Para 3.10.2.2 a)	The proposal demonstrates the control room can communicate with individual stalls on separate channels	15 pts			
Vol 2 Annex C – Para 3.10.2.2 b)	The proposal demonstrates the control room can select multiple stalls to communicate with at the same time from 2 to up to all stalls	15 pts			

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C – Para 3.10.3 a)	The proposal demonstrates the range control system has score recording, reporting and exporting capability.	5 pts			
Vol 2 Annex C – Para 3.10.3 b)	The proposal demonstrates the range control system with target retriever can score shooters automatically.	5 pts			
Vol 2 Annex C – Para 3.10.5	The proposal includes drawings which demonstrate the control room width is at least the same as the shooting area	15 pts			
Vol 2 Annex C – Para 3.15.7 a)	The proposal demonstrates the HVAC is fully convertible between propane and natural gas.	40 pts			
Vol 2 Annex C – Para 3.15.7 b)	The proposal includes previous examples and demonstrates the range meets the air flow requirements with the movable table present.	15 pts			
Vol 2 Annex C – Para 3.18.4	The proposal demonstrates the method selected for communicating the range condition	20 pts			
Vol 2 Annex C – Para 3.18.5 a)	The proposal demonstrates the auxiliary 3.5 mm audio ports will be placed adjacent to the control stations for the simulator system	10 pts			

Requirement	Proof of Response	Value	Bid Proposal Reference	Points Awarded	Notes
Vol 2 Annex C – Para 3.18.5 b)	The proposal demonstrates the space allocated for the installation of the simulator systems in server mounted racks. The space allows for all the simulator systems to be installed	10 pts			
Vol 2 Annex C – Para 3.18.5 c)	The proposal demonstrates that the range includes all allocated spaces, hardware, accessories, and supports systems enabling a third simulator system to be installed and used in the primary direction of fire	15 pts			
Vol 2 Annex C – Para 3.18.5 d)	The proposal demonstrates that the range includes all allocated spaces, hardware, accessories, and supports systems enabling a simulator system to be used in an authorized secondary direction of fire.	1 system, 1 sidewall = 15 pts 1 system, 2 sidewalls (not simultaneous) = 17 pts 2 systems, 1 sidewall each (simultaneous)=20 pts Max = 20 pts			

Total Points awarded: _____