

**TECHNICAL SPECIFICATION FOR PROCUREMENT OF BULLET PROOF VEH (5-DOOR) WITH STANDARD TOOLS AND ACCESSORIES, QUANTITY-02 UNIT (01 X UN MSN, BAF & 01 X UN MSN, BN) FY 2025-26**

Ser No	Nomenclature/ Description	Specification Specified	To be filled up by the principal/ manufacturer
1.	Type of the Vehicle	Armoured/ Bullet Proof Vehicle (5 Door) ✓	
2.	Name of the Local Agent with full Address	To be mentioned and certified by the <b>armoring manufacturer/ Principal</b>	
3.	a. Name of the Manufacturer with full Address (Base Vehicle)	Toyota Motor Corporation ✓ Address: 1 Toyota-Cho, Toyota City, Aichi Prefecture 471-8571, Japan Phone: +81-565-28-2121	
		INKAS® ✓ Armored Address: 3605 Weston Road, Toronto ON, M9L 1V7, Canada Phone.: +1(416) 744 3222 / +1 416 645 8725 Email: <a href="mailto:info@inkas.ca">info@inkas.ca</a> Website: <a href="http://www.inkasarmored.com">www.inkasarmored.com</a>	
	b. Name of the Manufacturer/modifier with full Address (Armoured Modification)	Alpine Armoring Inc. (USA) ✓ Address: 570 Herndon Parkway, Herndon, VA 20170, USA Phone: +1 (703) 471-0002 Fax: +1 (703) 471-0202 Email: <a href="mailto:sales@alpineco.com">sales@alpineco.com</a> Website: <a href="http://www.alpineco.com">www.alpineco.com</a>	
		Armormax (USA / EU) ✓ Address: 181 S 600 W 3A/5, Ogden, Utah 84401, USA Phone: +1 801 393 1075 Email: <a href="mailto:sales@armormax.com">sales@armormax.com</a> Website: <a href="http://www.armormax.com">www.armormax.com</a>	
		The Armored Group (USA / Germany) ✓ USA Address: 5050 E Red Rock Dr, Phoenix, Arizona 85018, USA Germany Address: Nordsehler Str. 47, Stadthagen, Niedersachsen 31655, DE Phone: +1 602 840 2271 (USA) Website: <a href="http://www.armoredcars.com">www.armoredcars.com</a>	
	Miami Armored (USA) ✓ Address: 2409 SW 59th Terrace, West Park, Florida, 33023 NE 13th Ave, Miami, FL 33161,USA Phone: +17869446044 Email: <a href="mailto:sales@miami-armored.com">sales@miami-armored.com</a> Website: <a href="http://www.miami-armored.com">www.miami-armored.com</a>		

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		Zida Armored Expert ✓ Address: Ras Al Khaimah, UAE Phone: +971527837036 Email: info@zidasecurity.com Website: www.zidasecurity.com	
		Autogroup International (Australia) Address: Level 3, 267 St Georges Terrace, Perth, WA 6000, Australia Email: info@autogroupinternational.com Website: www.autogroupinternational.com	
		Margalla Heavy Industries Limited (MHIL) ✓ HIT Armour Division Taxila Cantonment, Pakistan ✓ Phone: +92519315020 Email: hit-armour@margallahil.com Website: www.margallahil.com	
		SVI Engineering ✓ SVI Armouring Solutions Bashewa, South Africa Phone: +27(0)129993082 Email: info@svi.co.za Website: www.svi.co.za	
		AKSUM Armoured Vehicle ✓ Dubai Investment Park-1 Dubai, UAE Phone: +971503701954 Email: s.evans@aksumarmoured.com Website: www.aksumarmoured.com	
4.	Name of the Principal with full Address	To be mentioned and certified by the armouring modifier	
5.	Brand	Toyota ✓	
6.	Model	Toyota Land Cruiser 300 Series VX or higher variant, latest production model, brand new, unregistered, not manufactured earlier than the year of contract	
7.	Country of Origin	Base Vehicle – Japan Bullet Proof modification Canada/USA/UK/Australia/EU ✓ Countries/Pakistan	
8.	Manufacturing Country	Base Vehicle – Japan Bullet Proof modification Canada/USA/UK/Australia/EU ✓ Countries/Pakistan	
9.	Country of Assembly	Base Vehicle – Japan Bullet Proof modification Canada/USA/UK/Australia/EU ✓ Countries/Pakistan	
10.	Drive	Right Hand Drive (RHD)	
11.	Configuration	4x4 Wheel Drive (AWD)	

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12.	Weight Declaration	Final armored curb weight, GVW, axle loads, and payload shall be declared and certified by the armoring manufacturer. All suspension, braking, steering, and drivetrain components shall be rated for at least 120% of the final armored GVW.	✓
13.	Vehicle Integrity & VIN Protection	The original OEM Vehicle Identification Number (VIN), chassis number, engine number, and ECU serial numbers shall remain intact and unchanged after armoring. No grinding, re-stamping, cutting, or welding of the OEM ladder frame or powertrain mounting points shall be permitted.	✓
14.	Seating capacity	Minimum 04 person including driver ✓	
15.	Maximum turning radius	To be mentioned	
16.	Wheel Base	To be mentioned	
17.	Dimension (Length, Width and Height)	To be mentioned ✓	
18.	<b>Engine</b>	OEM gasoline engine as supplied by Toyota. No permanent engine modification is permitted.	
	a. Type	To be mentioned ✓	
	b. Model	To be mentioned (latest production model, not before the year of signing of the contract)	
	c. Country of origin	Japan ✓	
	d. Manufacturing Country	Japan ✓	
	e. Country of Assembly	Japan ✓	
	f. No of cylinder	To be mentioned	
	g. Piston Displacement	To be mentioned	
	h. Power Enhancement Requirement	Engine performance shall remain within OEM reliability limits. Any power enhancement, if offered, must be plug-and-play, OEM-safe, removable, and shall not affect engine longevity or warranty	
	j. Torque	To be mentioned	
	k. Fuel tank capacity: In-built tank capacity for minimum cruising range of 400 km on level 1 <sup>st</sup> class road	To be mentioned ✓	
	l. Maximum Speed:		
	(1) High Way	To be mentioned	
	(2) Cross Country (Vehicle must have cross country mob)	To be mentioned ✓	
m. Life Expectancy	Life expectancy of new engine up to 1 <sup>st</sup> overhauling not less than 1,00,000 km (Certificate to be provided by manufacturer along with quotation)		

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19.	<b><u>Transmission:</u></b>		
	a. Type	Automatic transmission (A/T) ✓	
	b. Gear box Model	To be mentioned (latest production model, not before the year of signing of the contract)	
	c. Country of Origin	Japan ✓	
	d. Manufacturing Country	Canada/USA/Japan/UK/Australia/EU Countries	
	e. Country of Assembly	Canada/USA/Japan/UK/Australia/EU Countries	
	f. All Gear Ratio	To be mentioned ✓	
20.	Type of steering	Power steering ✓	
21.	<b><u>Transfer case:</u></b>		
	a. Type	Full time transfer ✓	
	b. Model	To be mentioned (latest production model, not before the year of signing of the contract)	
	c. Country of Origin	Japan ✓	
	d. Manufacturing Country	Canada/USA/Japan/UK/Australia/EU Countries	
	e. Country of Assembly	Canada/USA/Japan/UK/Australia/EU Countries	
	f. High Gear Ratio	To be mentioned	
	g. Low Gear Ratio	To be mentioned	
22.	<b><u>Suspension Details (Post-Armor):</u></b>		
	a. Front	To be mentioned ✓	
	b. Rear	To be mentioned	
	c. Suspension System	Upgraded suspension, including replacement of Coil Springs and Shock absorber of four wheels must be custom made to counterbalance the extra armor weight	
	d. Suspension Support	Suspension components shall be specifically engineered and rated for the final armored Gross Vehicle Weight (GVW) and certified by the armoring manufacturer to safely support at least 120% of the armored GVW.	
	e. Suspension Tuning and Ride Quality	Post-armor suspension tuning shall ensure ride comfort comparable to OEM LC300 VX, with no excessive vibration, noise, or harshness (NVH). Road test certification shall be submitted.	
23.	<b><u>Brake system (Post-Armour):</u></b>	Braking system shall be upgraded to compensate for increased vehicle mass and shall maintain OEM ABS, ESC, and traction control functionality. Details are to be submitted along with the offer.	

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24.	<b><u>Electrical system:</u></b>		
	a. Battery (Volt & AH)	To be mentioned	
	b. No of Battery	To be mentioned	
	c. Alternator (Volt, Amp)	To be mentioned	
	d. Starter (KW)	To be mentioned	
	e. <b><u>Lighting System:</u></b>		
	(1) 02 x Signature Dual Barrel Headlamps (Dual barrel LED projector), 04 x LED turn indicator (ORVM) (front & rear), 02 x Stop/brake Lights, 02 x Reverse Light, 01 x Cabin Light, all gauges and meters in dashboard fuel gauges, hazard warning lights etc as required for proper functioning of all system of the vehicle	To be provided	
	(2) 02 x LED Projector Fog lamps at front for driving during foggy weather	To be provided	
	(3) Sting like LED Daytime Running Lamps	To be provided	
	(4) LED Sequential turn indicator	To be provided	
(5) Tachometer/Engine rpm meter and speedo meter (MKS system) in digital dashboard	To be provided		
25.	Noise Suppressor	All components producing noise and spark will be adequately cushioned/ shielded as per manufacturers' latest standard	
26.	Fire Suppressor System	To be provided	
27.	<b><u>Clutch System:</u></b>		
	a. Clutch Details	To be mentioned	
	b. Type of Gear Shifting Lever	To be mentioned	
28.	<b><u>Front Axle:</u></b>		
	a. Type	To be mentioned	
	b. Capacity	To be mentioned	
29.	<b><u>Rear Axle:</u></b>		
	a. Type	To be mentioned	
	b. Capacity	To be mentioned	
	c. Differential Lock	To be mentioned	
30.	<b><u>Bullet Proof Requirements:</u></b>		
	a. Country of Origin	Canada/USA/UK/Australia/EU Countries/Pakistan	

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	b. Country of Manufacturer	Canada/USA/UK/Australia/EU ✓ Countries/Pakistan	
	c. Country of Conversion	Canada/USA/UK/Australia/EU Countries/Pakistan	
	d. Armoring Architecture	Integrated, overlapping, self-supporting armored capsule providing 360° ballistic protection, including Doors, Roof, Firewall, Floor, Pillars, Bulkhead and Glass interfaces. Design shall be CAD-modeled and load-validated for final armored GVW. Drawings to be submitted during PSI.	
	e. Ballistic Protection Level	Minimum protection level shall be CEN EN 1063 B6 or above.	
	f. Type of Tires and wheel	Run-Flat-Inserts or best heavy-duty tires for armour veh in all four wheels to allow the vehicle to drive up to 50km + travel at 50km/H after total air loss. Ensure the tires are rated for at least 120% of the vehicle's Gross Vehicle Weight (GVW) to account for the armour. In this regard, the bidders are to submit their proposal along with the offer for BAF confirmation.	
	g. Ballistic Windows and Windshield Glasses	a. Multi-layer curved ballistic glass certified to BR6/BR7. b. Optical distortion shall not exceed 2.5 mrad. c. Glass shall be free from delamination, bubbles, haze, or edge defects. d. Preferred glass manufacturers: AGP / ISoclIMA / OPTIMA or equivalent. e. Driver window-controlled drop shall not exceed 100 mm. f. Driver windows actuator to allow lowering of a single window for up to 4 inches is to be provided. g. Minimum two years delamination warranty is to be provided	
	h. Blast & Fragmentation Protection	a. Floor blast protection against DM-51 or equivalent hand grenade ✓ b. Fragmentation liner on roof and doors.	
	j. Ballistic Overlaps & Anti-Spall Protection	Ballistic overlaps and anti-spall splash-return protection shall be provided at all joints, seams, door frames, and glass interfaces.	
	k. Doors & Hinges	a. All doors shall be reinforced with: (1) Multi-layer ballistic overlaps (2) Reinforced hinges (3) Heavy-duty door checkers (4) Soft-close mechanism b. Doors shall not sag or misalign after extended use c. Door opening/closing force shall remain within ergonomic OEM limits	

	Nomenclature/ Description	Specification Specified	To be filled up by the principal/ manufacturer
	I. Fuel Tank Protection	Fuel tank shall be self-sealing, explosion-resistant, and protected to the same ballistic level as the passenger cell	
	m. Interior Comfort & Ergonomics	a. Interior layout, seating comfort, visibility, ingress/egress, and rear passenger legroom shall not be inferior to OEM LC300 VX.  b. Luxury finish shall be retained without visible compromise due to armouring.	
	n. Ballistic Protection Test and certifications	To be provided	
	p. HVAC (Heating, Ventilation, and Air Conditioning) Performance	The manufacturer shall provide a comprehensive upgradation to the vehicle's Air Conditioning and Environmental Control System to ensure operational efficiency in extreme thermal conditions. The system must maintain a stabilized cabin temperature of 20°C – 22°C while operating in external ambient temperature of up to 45°C. To meet the performance, an Auxiliary Cooling Unit may be provided.  In this regard, the manufacturer must include detailed equipment specifications and supporting performance certificates alongside the offer to verify the system's operational capabilities.	
	q. Manufacturing Accuracy	To eliminate "ballistic gaps," the manufacturer shall utilize 3D laser scanning of the OEM interior and CNC plasma/laser cutting for all ballistic plates, ensuring high-tolerance fitment at all glass-to-metal and door-to-pillar interfaces. The manufacturer shall provide supporting certification to validate that the final assembly meets these precision-fit and ballistic protection standards.	
	r. Miscellaneous	To be mentioned	
31.	Colour	Vehicles are to be painted from manufacturer/modifiers' factory (chips for exterior body colour and interior seat material & exterior colour sample plate are to be submitted along with offer for BAF selection)	
	<b>Accessories:</b> Following accessories are to be provided with each vehicle:		
	a. Dual zone FATC	To be provided	
	b. Separate AC vent at rear row	To be provided	
32.	c. Comfortable Seat with original Leather Binding	To be provided	
	d. 02 x Rear seat entertainment Screens	To be provided	
	e. Electrochromic rear view Adjustable Mirrors	To be provided	
	f. Steering remote controls	To be provided	

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	g. Electronic Stability Control (ESC)	To be provided	
	h. Powerful RWD SUV/robust construction	To be provided	
	j. Chrome Door Handles	To be provided	
	k. Parking Sensors (front and rear)	To be provided	
	l. Activated Carbon Filter	To be provided	
	m. VSC (Vehicle Stability Control), DAC (Downhill Assist Control) and CRAWL (Control and Cruise Control) system	To be provided	
	n. Cluster	To be provided	
	p. Rear Spoiler	To be provided	
	q. Leather wrapped Steering + Gear Shift lever	To be provided	
	r. Auto Headlamp + Auto wiper	To be provided	
	s. 8-Way Driver Power Seat	To be provided	
	t. Seat height adjust + Lumbar Support	To be provided	
	u. Rear Wiper, Washer and Demister	To be provided	
	v. A Pillar Grab Handle (both sides)	To be provided	
	w. DAC (Downhill Assist Control)	To be provided	
	x. Touchscreen Infotainment	To be provided	
	y. Digital Quartz Clock at Dashboard	To be provided	
	z. Door locks: Auto door lock operated from driver seat for all doors (speed sensitive door lock).	To be provided	
	aa. Front foot lamps and lighting for side steps (both sides)	To be provided	
	ab. Digital Instrument Panel	To be provided	
	ac. Towing Hook 02 nos at front and 02 nos at rear	To be provided	
	ad. Fire Extinguisher: 01 kg capacity A B C & E type or A, B, C type which capable of extinguishing A, B, C & E type fire with bracket and chemical to be fitted at the side of driver seat	To be provided	
	ae. Inspection lamp complete with cable (10 meter), plug &	To be provided	

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arrangement of socket in the vehicle for using inspection lamp		
af. Boost ventilator with central fresh, cool & air circulation (dual type air condition) with climate control system	To be provided	
ag. 360° Camera with front & rear Camera recorder	To be provided	
ah. Fold Type Arm Rest in 2 <sup>nd</sup> row with cup holder	To be provided	
aj. Sufficient number of Airbags to ensure driver and both front and rear passenger's safety (SRS)	To be provided	
ak. 02 x Sun visors with fitting brackets	To be provided	
al. 01 x Inside rear-view mirror	To be provided	
am. 02 x outside rear-view mirror	To be provided	
an. SD Card Quacity-01 with each vehicle	To be provided	
ap. Windshield Glass with defogger	To be provided	
aq. Both side door: Full size normal door with power operated windows power operated	To be provided	
ar. Rear windshield with Defogger	To be provided	
as. Type of Seat: original leather seat luxurious comfort quality	To be provided	
at. Roof mount cabin lamp inside cabin	To be provided	
au. Intermittent windshield wiper 2 x front & 1 x rear	To be provided	
av. Seat belt warning	To be provided	
aw. Remote door lock	To be provided	
ax. Glove box	To be provided	
ay. Foot rest (both side & rear)	To be provided	
az. 01 x floor mat front & rear complete	To be provided	
aaa. Air conditioner	Dual zone AC Vent with climate control (Front & Rear row separately), Hot & cold air circulation and auto 4 seats independent control (dual type) system to be provided	
aab. Mudguard with mud flap for all wheels	To be provided	
aac. Front spoiler	To be provided	
aad. Cup holders front & rear	To be provided	
aae. Roof rail in both side	To be provided	



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	aaf. Standard seat belt to be provided for driver and all passengers	To be provided	
	aag. Rear console box	To be provided	
	aah. Collision avoidance control system	To be provided	
	aaj. GPS/Navigation System	To be provided	
	aak. USB and Bluetooth Connectivity with USB charging C port (2nd row)	To be provided	
	aal. Android Auto™ + Apple CarPlay Compatibility	To be provided	
	aam. Infotainment display for rear passenger seat	To be provided	
	aan. Wireless charging	To be provided	
	aap. Radio set integrated with digital multimedia system	To be provided	
	aaq. Back Camera with monitor to avoid collision while reversing	To be provided	
	aar. Laser Sensor with provision of audio warning while reversing	To be provided	
	aas. Anti-theft system: alarm & immobilizer (scr-horn)	To be provided	
	aat. Tyre pressure monitoring system	To be provided	
	aau. Any other standard accessories (if applicable)	To be provided	
	<b>Tools set:</b> Following tools set are to be provided with each vehicle within quoted price:		
	a. 01 x Jack assembly with handle	To be provided	
	b. 01 x Wheel wrench with handle	To be provided	
	c. 01 x Adjustable wrench	To be provided	
	d. 01 x Pliers	To be provided	
33.	e. 01 set x Screw driver (+/-) with handle	To be provided	
	f. 02 Nos double ended spanner	To be provided	
	g. 01 x Tool bag/box for above tools	To be provided	
	h. 02 x Wheel stopper	To be provided	
	j. 01 set x Tyre inflator kit set	To be provided	

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	k. 1 x Grease gun with replaceable tip	To be provided	
	l. Any other items required for ready hand maintenance	To be provided	
34.	<b><u>Following essential spares are to be provided with each vehicle within quoted price:</u></b>		
	a. 01 Set x brake pad for all wheel	To be provided	
	b. 04 x tires with all accessories	To be provided	
	c. 01 set x door hinges and pillars	To be provided	
	d. 01 set x shock absorber	To be provided	
35.	<b><u>Publication/Manuals:</u></b> Following publication/technical manuals are to be provided free of cost with the vehicle		
	a. Driver's / Owner's manual in English complete set book type quantity-01	To be provided	
	b. Updated Maintenance /Repair/Workshop manual including necessary Block Diagram and Flow Chart for engine, chassis, body, electrical system & all other in-built accessories in English complete book type quantity-01	To be provided	
	c. Complete updated master spare parts catalogue for engine, chassis, body, electrical system & all other accessories in English complete book type quantity-01	To be provided	
36.	<b>Documentation &amp; Certification</b>	The following shall be provided: a. VIN-linked ballistic certificates b. Ballistic material test reports c. CAD drawings of armoured capsule d. Suspension and brake upgrade certification e. Road test and performance reports	
37.	<b><u>Petrol Oil Lubricant (POL) information:</u></b> The following information must be submitted with the offer:		
	a. Details maintenance schedule of vehicle and engine	To be mentioned	
	b. Grade of fuel used in vehicle (high speed petrol) should be compatible with available fuel used in Bangladesh	To be mentioned	
	c. Type of engine oil used in vehicle, engine oil confirming to API C14 Plus, (SAE 15W-40) or higher-grade engine oil	To be mentioned	

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	d. Type of gear & differential oil used in vehicle	To be mentioned	
38.	Fast- and slow-moving spares	Quote separately for each item. ✓	
39.	Special Service Tools (SST)	If required, quote separately for each item	
40.	Special Service Materials (SSM)	If required, quote separately for each item	
41.	Analyzer Measuring & Testing/Fault Finding & Diagnostic Set for Engine (01 set)	Quote separately ✓	
42.	Local workshop facilities	Level of repair facilities available like field repair, overhauling to be mentioned in details	
43.	Production Date	To be manufactured not before the year of contract. Production date must be mentioned on the vehicle identification (ID) plate by the Manufacturer / assembler or certificate of production date from the manufacturer must be provided	
44.	Design, drawing with dimension of vehicle and details specs of vehicle in manufacturer's brochure must be submitted with the offer.	To be provided ✓	
45.	Consignee	Officer Commanding 201 MU BAF, Dhaka Cantonment, Dhaka, Bangladesh  <u>Care of:</u> Officer Commanding BAF Embarkation Unit, Chattogram, Bangladesh	
46.	Price	To be mentioned in foreign currency. FOB value, Freight and Agency commission must be mentioned separately	