

Annex A

Scope of Work

1. RCMP POLICE DOG KENNEL TRUCK REQUIREMENTS

The RCMP requires a contractor to perform a custom truck box transfer from RCMP Supplied vehicles. The statement of work will require the box re-conditioned and transferred from a RCMP in-service truck to a new RCMP purchased cab and chassis. The contractor to provide all labour, consumables and listed components required to perform the box transfer and re-conditioning in accordance with the requirement, specifications, term and conditions detailed herein.

The RCMP kennel specialized box is used for live cargo and equipment. The Contractor must remain diligent in their work to ensure the safety of the live cargo the vehicles will be transporting.

2. DETAILS OF GOVERNMENT FURNISHED VEHICLES AND EQUIPMENT

The vehicles and equipment will be available on agreed timelines after award of contract.

2.1 Up to six (6) Old Vehicles:

CHEVROLET Silverado 3500 Cab and Chassis, Crewcab, 4x4, 8 CLY Diesel, Wheelbase 3904mm, GVWR 5216Kg

2.1.1 Rear Specialized Box

2.1.2 Reused equipment from Old Vehicle

- A. Whelen Siren unit and Controls
- B. Camera system

2.2 Up to six (6) New Vehicles:

CHEVROLET Silverado 3500 Cab and Chassis, Crewcab, 4x4, 8 CLY Diesel,

The cab and chassis warranted by truck Original Equipment Manufacturer (OEM).

2.3 RCMP Supplied Equipment:

- a) Precision Mounting Technologies Ltd. (PMT) Console and Baseplate
- b) Whelen Siren Speaker and Siren Bracket
- c) Whelen Lightheads 2 x Red, 2 x Blue

3. STATEMENT OF WORK - BOX TRANSFER AND RE-CONDITIONING

3.1 Box Interior and Exterior Reconditioning and Transfer

The Contractor must perform the following:

- a) Clean and repair areas of dust and water intuition
- b) Body repair – oxidization repair
- c) Paint repair – See below:
- d) Structure reinforcement at hinges or latches, if required
- e) Additional aluminum checkered plating at front of box corners
- f) HVAC Installation (see 3.3 HVAC)
- g) Patch or cover holes from previous hardware in uniform astatically pleasing manor
- h) Proper mounting box to truck with existing or custom mounting
- i) Add surface bonded automotive manufacture grade spray-in liner polyurethane/polyurea elastomer coating that will not scratch, chip or fade to kennel flooring.
- j) All hardware must be of high grade automotive or industrial type materials

The box installation to new vehicle chassis must be in a method to ensure maximum structural strength, while keeping the 4 kennel floors as close to the ground. The minimum 33" to 36" maximum floor height to ground.

The box installation on chassis using rubber isolation mounts are required to protect galvanic reaction of dissimilar metals. Additional coatings must be designed specifically to prohibit dissimilar metals from electrolysis and galvanic corrosion (for example: ECK) must be used at all points where dissimilar metals may be in contact to eliminate galvanic reaction including hinges, handles, fasteners and hardware.

Repaired aluminum surface must be properly prepared prior to the application of paint, as per paint manufacturer's recommendations. Any exterior body paint must be in colour match high quality grade automotive paint using the manufacturer's recommended practices and be automotive manufacture grade finish. The colour choice will be discussed at pre-production meeting. The Interior aluminum surfaces must remain not painted.

3.2 HINGES, LOCKS, SIDE STEPS AND DOOR SEALS

Supply and replace the following items:

- a) All hinges on box – Stainless Steel
- b) All door locks, key tumblers and electric actuators. (keyed alike). Door latches and locks on the exterior must be stainless steel and must be equipped with a weatherproof cover
- c) Door holds with a pneumatic gas strut locking system to hold door 90 open and released by applying pressure to door to close
- d) All box door rubber bulb seals with extruded silicone rubber bulb seals. Due to dust and weather intrusion, it is very important that the all box exterior doors be completely sealed
- e) Rear door cam action bar system

3.3 Heating Ventilation and Air Conditioning (HVAC)

The RCMP Kennel Trucks have two different HVAC systems and require different work depending on the model year. The 2014 model year trucks require the contractor to perform items indicated 3.3.1. The 2015 and newer model year trucks contract option year will require the contractor to perform items in 3.3.2.

3.3.1 2014 Model Trucks - Remove and Replace HVAC System

- a) Old HVAC SYSTEM without adverse affects to the Box, kennel or box storage area
- b) Old vehicle must be made roadworthy and vehicle cooling system and A/C must be restored to operational condition
- c) Removal of old components and wiring
- d) Add or subtract box structure to allow new self-contained HVAC system as well as keep structural integrity of the box

The contractor must supply and install a roof or front mounted HVAC unit that contains it's own dedicated compressor and condenser (not plumbed into chassis refrigerant). The HVAC system must not use cargo space unless for ducting and must be fully operational in Canadian climates.

- a) Any portion of the unit on the exterior must be aero dynamic and colour matched to the vehicle
- b) Unit must be water proofed and connection to roof must be structurally sound and remain sealed
- c) Unit must be adaptable to operate on 110-115VAC with a waterproofed connector for shore power
- d) HVAC system must also operate with 12VDC vehicle power while idling and driving. No fuel powered systems acceptable.
- e) The installed Rear HVAC system must have the ability to maintain a temperature of as low as 17 °C in the summer time and as high as 25°C in the winter time with vehicle on or off

- f) The system must be programmable with instructions
- g) System must be controlled and monitored from the cab of the vehicle
- h) Installed System must not:
 - i. Adversely affect the factory engine or engine controls
 - ii. Be located in a manner that adversely increases the noise level 87dBA or less inside or out of box

The current HVAC system in the new model kennel vehicles: ATC standalone heater, air conditioner, with dedicated compressor and condenser. The system is controlled by a ATC Temperature Control Panel – 810025

3.3.2 Optional Box Transfers: 2015 and Newer Model Trucks - Inspect, Refurbish or Replace

The contractor will have fifteen (15) days to verify the old trucks HVAC system meets specification listed in 3.3.1. The contractor must perform any minor cleaning, repair if required, A/C recharge to insure the HVAC system is operational. If the system requires replacement, the contractor must contact the Project Authority to exercise the replacement option.

3.4 BOX AND VEHICLE MONITORING SYSTEM

Supply and Install new CZONE Control 1 and Display 5 Marine grade system monitoring or equivalent.

The system must have a surface mounted 5 inch LED colour touchscreen display with minimum IPx7 Ingress Protection. The system must have built-in WIFI connectivity with app. The system must have multiple display options including a vehicle overlay display with icons, must be able to toggle between current status of all monitoring items and have a system data log for system parameters. The unit must be user friendly and have multiple options with easy control at a glance and have a favorite home screen.

The monitoring module must have multiple input and output connections with digital switching functionality. The wire connections, power supply, fuses and monitoring must be contained in the same unit. The monitoring unit must have status update LED for outputs for quick diagnostic repair. The system must have Minimum 2 high amp and minimum 5 low amp outputs and minimum of 6 analogue inputs minimum 0-24volt negative and positive switching, 0-1000 Ohm resistance sensing. The unit must be weather resistant with a minimum IPx5 Ingress Protection with ISO8846/SAEJ1171 Ignition Protected due to the mounting location in the box electrical enclosure and Canadian weather challenges.

The vehicle and box monitoring system must be capable of monitoring and performing the following Items with the one system:

- a) Temperature monitoring in kennel area – activate alarm if out of parameters. Indicator on screen with warning indicator. Have mute alarm option.
- b) Water tank temp sensor- display temp, supply power to heat tape to maintain temperature parameters
- c) Vehicle monitoring low voltage - display voltage with warning indicator
- d) Box door open indicator – light or indicator with warning indicator
- e) Water tank level sensor - level indicator on with warning indicator
- f) Carbon Monoxide Detector monitoring in kennel area - Alarm if activated
- g) Wireless and WIFI capable connections
- h) The monitoring system must have connections to audible in vehicle cab and exterior alarm system to notify the operator when items fall out of user set parameters

3.5 CAMERA SYSTEM

Remove current video system, both wiring and components, test and reuse any components that are compatible that are interchangeable with Zone Defense.

Supply any required components and Install RCMP recommended Zone Defense system as a required for vehicle standardization, Canadian winter package operation, and following features listed.

Zone Defense system must operate with the following options with any operational and compatible equipment:

Operation of five (5) infrared camera inputs:

- a. One (1) Rear backup Camera Utilizing Vehicle Infotainment system. Canadian Winter Camera, Heated, IP69K 12G Rating. Connection to vehicle reverse operation for auto display of backup camera
- b. Four (4) infrared Cameras connected to Zone Defense display monitor. Installed in the four Kennel areas allowing operator to view the interior of each Kennel. Installed back rear box on top cage. Each camera must be facing inwards and protected to ensure that it is not damaged by the dog or high pressure water spray
- c. Reuse current monitor if compatible and is fully operational. The Monitor must be Installed in cab of vehicle accessible for vehicle operator.
- d. Option for operator to toggle between camera views or display all four cameras

3.6 WIRING AND ELECTRICAL

The box and vehicle basic wiring must be removed and Contractor supplied new wire and components will be installed. The Contractor must supply all components and consumables listed in Statement of Work.

3.6.1 GENERAL

- a) Add a battery charger to Primary battery and receive power at shore power connection
- b) All wiring must be colour coded using National Colour Code Standards
- c) One fuse per circuit
- d) All wires labeled or on fuse panel. All component wiring must be labeled with wire labels
- e) Install 12 Circuit with negative bus, cover, ST blade fuse block panel Blue Sea 5026 or equivalent marine grade fuse block and include 3 additional fuse spots for radio and other items
- f) All wiring must be from front resettable breaker to buss bar, then fused to component
- g) Proper cable management practices and service loops must be used for future updates and diagnosis. (no cable spaghetti). Wires must be bundled in like pairs
- h) Wire connections inside or outside vehicle must be made using heat shrink or weatherproof connectors

3.6.2 UNDERHOOD ELECTRICAL

- a) Two high gauge power wires from under hood resettable breaker connections to equipment. The gauge wires must be within supply load capacity of 150%. Two wires must supply console fuse block and the rear kennel box fuse block
- b) Install a DC battery guard separator to protect the chassis battery Blue Sea 7211 Only (approved by RCMP National Fleet and used in all marked police vehicles)
- c) Siren speaker supply 2 wire, speaker and bracket
- d) Grill Red, Blue Police lighting wiring and lights
- e) Additional battery connections

3.6.3 BOX ELECTRICAL

- a) Supply and Install waterproof enclosure National Electrical Manufacturers Association (NEMA) Rating 4x or higher; inside box on passenger side above Kennel. The enclosure must contain all wire connections. components and 12 Circuit with negative bus, cover, ST blade fuse block panel Blue Sea 5026 or equivalent. Must have room for expansion of an additional 12 circuit fuse block and 2 x Automotive relays. The enclosure must be easily accessible using box step on Curb side.
- b) Supply and Install Waterproof Connector/Conduit fittings with mating tube to enclosure to prevent water and dust intrusion
- c) All through holes for box and vehicle must be sealed, wires protected and loomed.

3.6.4 WATER TANK HEATING

Supply and Install heating strip and temperature sensor to existing water tank. Install to operate with monitoring system.

3.6.5 BOX INTERIOR LED STRIP LIGHTING

Remove: Old wiring, switches and LED Strip lighting

Supply and Install: Exterior storage and kennel access doors must have lighting installed on the sides and top of box frame. The installation must include 6000k LED White Strip lights IP68 or greater inside protective tracking. The lighting will be connected to the vehicle 12v system and fused in rear box weatherproof electrical box. The switch must be activated by a kennel door action and door switches must be magnetic weatherproof. The installed lighting and switches will be exposed to high pressure water; consideration is needed when installing into the kennel areas. The LED lights must have an override on/off from monitoring system and toggle switch in-cab. Refer to 3.4 box and vehicle monitoring system for more details.

3.6.6 BOX EXISTING EXTERIOR LIGHTING AND POLICE LIGHTING

Verify condition of lighting and weatherproof connections. Replace any box lighting faulty or with damage. If Police lighting is faulty or lenses damaged, contact the Identified user for replacements. The lights must be installed with an alternating pattern.

Reconnect vehicle lighting and box lighting. Proper vehicle signal flash speed will need verified and adjusted if required. Install front grill lights to new truck and at the same time install and wire siren system.

3.6.7 TOGGLE SWITCH PANEL

Supply and Install in vehicle cab, toggle switches

- a) Box LED strip lighting. On/Off and Door operation
- b) Lock and unlock rear box and with both factory key fob and Remote start fob
- c) Backup Alarm

3.6.8 CARBON MONOXIDE DETECTOR

Supply and Install a carbon monoxide detector in box kennel area connected to monitoring system that must have audible siren outside vehicle. Equivalent 12v CO detector with output trigger wire to the monitoring system, no speaker in the kennel box.

The RCMP newest revision on kennel vehicles and Dog units contain following models with above required features. One of the following CO detectors must be installed:

- o ACEK9 – DC-1612, or
- o Safe-T-Alert-25 Series – With additional N/C sensor wire added and speaker covered.

3.6.9 BACK-UP ALARM

Supply and install industry recognized automotive grade vehicle back-up alarm connected to reverse operation with manual shut-off switch in toggle switch panel. (Refer to Section 3.6.7)

4.0 BOX TRANSFER AND RE-CONDITIONING ADDITIONAL ITEMS

4.1 SIREN UNIT

Install Siren speaker and bracket in manufactures specific location. Connect the siren unit with same connections and features as previous Truck.

4.2 VEHICLE CONSOLE UNIT

Install the RCMP supplied console and mounting adaptors.

4.3 REMOTE START

Supply and have Installed RCMP Post Garage mandated VIPER DS4+ with plug and play harness systems. This is to reduce installation complexity and failures. The Viper System must be GM dealership installed for warranty purposes. Install Remote Start unit with the following options:

- a) Start Stop feature with preset time and/or temperature perimeters
- b) Remote lock and unlock box doors and vehicle cab doors
- c) (2) x 2-way visual remote with vehicle status and USB charger
- d) Vehicle alarm

5.0 SUPPLY OPERATOR'S MANUAL, DETAILED WIRING AND COMPONENT RECORDS

The Contractor must supply an operator's manual with the delivery of the vehicle both paper and electronic copy (usb stick). The manual must provide detailed instructions of the equipment installed, preventative maintenance to the box, troubleshooting of the AC and DC wiring diagrams. CAD or equivalent drawings of the completed box and wire runs. A sticker must be installed on the electrical box containing a list of equipment installed, fuses and warranty contact info. All written information must be English language.

On request some installed electrical components may require an initial setup phone training. Additional refresher training phone calls may be required during the duration of the warranty.

6.0 QUALITY ASSURANCE REQUIREMENTS

The Project Authority will conduct a minimum of three (3) inspection periods during the build process. The Project Authority may request a site visit or photos at each inspection period. The Project Authority may require follow-up inspections if assumed necessary to ensure the installations meet the Contract specifications.

Inspections will take place prior to the following steps: 1) Final paint coat, 2) Box transfer and 3) Final Inspection. The Contractor must inform the Project Authority a minimum of five (5) working days prior to each of the steps mentioned above.

The Contractor must appoint a single representative to address any issues brought forward from the Project Authority.

The Contractor is to correct any deficiencies identified by the Project Authority or designate. The Contractor is required to make corrective changes to meet the contract requirements and meet the scheduled production timeline. The Contractor will be responsible for rectifying all deficiencies with no cost to the RCMP.

All RCMP equipment installed by the Contractor must be in good operating condition. If the supplied equipment is not, the Contractor will notify the Project Authority immediately. It is up to the Contractor to verify condition of equipment before installation. The Contractor must perform a pre-delivery test verifying proper operation of the installed equipment.

The Contractor will immediately notify any damage with vehicle(s) or equipment(s) to the Project Authority. Damage done by the Contractor to vehicle(s) and or equipment(s) will be the responsibility of the Contractor. All repairs or replacements will be at the Contractors expense. No costs for such repairs or replacements shall be borne by the RCMP. The repair to the vehicle must be completed using OEM parts and OEM repair facilities.

The Contractor must follow vehicle manufactures best practices and up-fitting procedures, including but not limited to the following:

1. <https://www.fleet.ford.com/truckbbas/topics/2012/modGuide.html>
2. <https://www.gmupfitter.com/>

The battery must be disconnected whenever the Contractor is working on any RCMP vehicle. This is to prevent discharge of battery, electrical circuits shorting out, fuses blowing and vehicle fires. The vehicles must be returned the Post Garage with the batteries in the fully charged state.

7.0 CERTIFICATIONS, WARRANTY and SERVICING

The Contractor and Subcontractors work and components must conform to all legal Canadian regulations and standards set out with applicable federal, provincial governing bodies including but not limited to: Canadian Motor Vehicle Safety Standards (CMVSS), Alberta Transportation, Canadian Standards Association (CSA), Alberta Commercial Vehicle Inspection Program (CVIP).

8.0 DETAILS OF OLD VEHICLE DECOMMISSIONING

The contractor will remove all and or requested police, safety, additional equipment without damage to the equipment and return old vehicle to the Original Manufacture state. The vehicle wiring, cooling and air conditioning must be operational and returned to factory state. All equipment not reissued in new vehicle must be returned to the Project Authority in an organized fashion. Due to traffic safety restrictions, old vehicles must be transported by transport trucks.

9.0 DETAILS OF VEHICLE MOVEMENT

To prevent incurring excessive mileage on RCMP vehicles. The Contractor must transport the vehicles by transport carrier (to and from) the contractor’s facility. The costs of the transport carrier to be included in the cost of the work. No more then 100 Kms total is to be added to the vehicles from acceptance to delivery.

Contractor must collect the new vehicle(s) from Regina RCMP Post Garage Location (1), Collect used vehicle(s) from RCMP Police Dog Training Location (2). Deliver both new and used vehicle(s) to Edmonton Post Garage Location (3). Each pick-up and delivery requires a minimum 72hr (3 working days) notice via email. Contact information provided at contract award.

<p>LOCATION 1 OLD VEHICLE COLLECTION FROM:</p> <p>POLICE DOG SERVICE TRAINING CENTRE QUEEN ELIZABETH II HIGHWAY INNISFAIL, ALBERTA T4G 1S8</p>	<p>LOCATION 2 NEW VEHICLE COLLECTION FROM:</p> <p>REGINA POST GARAGE 6101 DEWDNEY AVE REGINA, SASKATCHEWAN S4P 3K7</p>	<p>LOCATION 3 OLD AND NEW VEHICLE DELIVERIES TO:</p> <p>EDMONTON POST GARAGE 11136 109 STREET EDMONTON, ALBERTA T5G 2T4</p>
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10.0 DETAILS OF DELIVERY

The final inspection will take place upon vehicle delivery and all completed work will be subject to the RCMP inspection at anytime and payment in whole or part shall not constitute the RCMP acceptance or approval of that Work. The RCMP may reject any Work and require the Contractor to correct Work not done in accordance with the Contractor’s warranties set out in this Contract or applicable laws. Any such corrections must be done at the Contractor’s sole expense.

11. DELIVERABLES

The Contractor must provide a proposed production plan with description and scheduled timeline within fifteen (15) days of contract award.

- a) The Production plan must include a description of in-house and off-site sub-contracted work performed.
- b) Must meet RCMP delivery requirement of completion within 120 days with signed inspection approval.
- c) Must include contract advisor’s name and contact information.
- d) Purposed Itemized list of work.