

## FORM N: DETAILED SPECIFICATIONS 23021

### SUPPLY AND INSTALLATION OF ALUMIMUM SERVICE BODY and CRANE

#### INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 1.1 All items in these specifications should be answered indicating compliance or non-compliance.
- 1.2 **Bidder shall state “yes” for compliance or state “deviation”**, or give a reply where requested to do so. Deviations and/or equivalents shall be clearly stated and fully detailed. Deviations and/or equivalents will be considered subject to evaluation. In every instance where a brand name or design specifications is used, the City will also consider deviations and/or equivalents.
- 1.3 Lengthy explanations of deviations may be included in a separate document and must reference the appropriate Detailed Specification.
- 1.4 Each Proponent is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.
- 1.5 It will be the responsibility of the Proponent to inform the City of any errors or omissions in these Detailed Specifications, for under this Contract, the Contractor shall be held responsible to ensure that the manufacturer will be responsible for the design, performance, reliability and satisfactory operational function of the unit.

#### **2.0 DESCRIPTION OF EQUIPMENT**

- 2.1 These specifications describe the supply and installation of an **Aluminum Service Body and Crane** and other equipment and features as specified herein.
- 2.2 The **Aluminum Service Body and Crane** shall be a new **2023** model year or newer.
- 2.3 The **Aluminum Service Body and Crane** and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 2.4 The ratings specified herein merely state the minimum values acceptable to the City, not implying that those values are sufficient for the design of the particular equipment being bid.

#### **3.0 OTHER SPECIFICATIONS AND STANDARDS**

- 3.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 3.2 **Where applicable**, the **Aluminum Service Body and Crane** shall comply with the applicable regulations:

##### **Standard - Specification/Regulation**

##### **Internet URL**

Transport Canada, National Safety Mark, NSM:	<a href="http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm">http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm</a>
Manitoba Safety and Health Regulation, Parts 12, 16, 22:	<a href="http://web2.gov.mb.ca/laws/regs/current/217.06.pdf">http://web2.gov.mb.ca/laws/regs/current/217.06.pdf</a>
Canadian Motor Vehicle Safety Standards C.M.V.S.S.:	<a href="http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1038/section-sched3.html">http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1038/section-sched3.html</a>

**Standard - Specification/Regulation**

**Internet URL**

Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker:	<a href="http://web2.gov.mb.ca/laws/regs/index.php?act=h60">http://web2.gov.mb.ca/laws/regs/index.php?act=h60</a>
Canadian Standards Association CSA:	<a href="http://www.csagroup.org">http://www.csagroup.org</a>
Under Writers of Canada U/L:	<a href="http://www.ulc.ca">http://www.ulc.ca</a>
Society of Automotive Engineers SAE:	<a href="http://www.sae.org">http://www.sae.org</a>
City of Winnipeg Lighting Visibility Standard:	<a href="http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf">http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf</a>
Manitoba Building Code:	<a href="https://web2.gov.mb.ca/laws/regs/current/_pdf-regs.php?reg=31/2011">https://web2.gov.mb.ca/laws/regs/current/_pdf-regs.php?reg=31/2011</a>

- 3.3 Where applicable, the completed unit shall include a Manitoba Government Inspection with Safety Sticker.
- 3.4 Where applicable, the manufacturer/installer shall be a certified vehicle completer and must affix their National Safety Mark (NSM) certification sticker on each unit.

**State** NSM number: \_\_\_\_\_

**4.0 FUEL**

- 4.1 Where applicable, the equipment shall be fully fuelled upon delivery (no exceptions).

**5.0 REFERENCES**

- 5.1 If available, please provide five (5) references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**6.0 MAKE & MODEL**

- 6.1 State year, make and model being bid:

Model Year: \_\_\_\_\_

Make: \_\_\_\_\_

Model: \_\_\_\_\_

**7.0 PERFORMANCE RELIABILITY**

- 7.1 The responsibility for the design of the **Aluminum Service Body and Crane** its performance and reliability shall rest upon the Contractor.

- 7.2 The term “repeated failures” as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of “repeated failures”, as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer’s preventative maintenance schedule.
- 7.3 Where the **Aluminum Service Body and Crane** develops “repeated failures” in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.
- 7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. **Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C).**

## 8.0 **SERVICE FACILITY**

- 8.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Bidders shall provide a description of the service facility including, but not limited to, number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

## 9.0 **QUALIFICATIONS OF MANUFACTURER & CONTRACTOR**

- 9.1 The manufacturer of the **Aluminum Service Body and Crane** shall have five (5) years continuous experience manufacturing **Aluminum Service Body and Crane**.
- 9.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Aluminum Service Body and Crane** of the type being offered.

### **Typical Completed New Aluminum Service Body and Crane on Truck Chassis Pictured below - Curb Side (L1).**



10.0 **SPECIFICATIONS**

**Scope**

10.1 Supply and Delivery of an **Aluminum Service Body and Crane** complete with steel deck which will be mounted on a City owned cab and chassis. \_\_\_\_\_

Supply and Delivery of a 10,000-ft-lb telescopic **Crane** to be installed at the rear, curbside top (L1) of the service body.

The **Aluminum Service Body** shall be capable of supporting the **Crane** described in these specifications.

The **Aluminum Service Body and Crane** shall be capable of consistent top performance for loading and hauling varying payloads year-round in conditions normal to the City of Winnipeg.

- Body and accessories to be mounted by a CMVSS certified installer in accordance with CMVSS regulations as well as the chassis and body manufacturers recommendations.

**Note:**

The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)

**Make and Model – Service Body**

Make **State:** make: \_\_\_\_\_

10.2 Model **State:** model: \_\_\_\_\_

10.3 Model Year **State:** model year: \_\_\_\_\_

**Body Weights**

10.4 Body Weight – Service Body **State:** estimated weight of service body  
\_\_\_\_\_

10.5 Body Weight – Crane **State:** estimated weight of crane  
\_\_\_\_\_

10.6 **Weight Scale Ticket**

Weigh Scale Ticket: \_\_\_\_\_

- The Contractor shall provide a certified weigh scale ticket upon delivery of the completed unit
- The scale ticket shall include front and rear axle weights including two (2) operators, all attachments and full of fuel.

**Manitoba Inspection (MGI)**

- 10.7
- The Contactor shall provide completed/valid MGI upon delivery of the completed unit. \_\_\_\_\_
  - MGI documentation shall be valid upon release in accordance with an approximate 12-month period application or effectiveness.

**Installation**

10.8 **Aluminum Service Body and Crane will be installed** on the following City owned cab & chassis vehicle:

City Winnipeg Department/Customer	Vehicle Type/Style	Quantity	Description	New Vehicle Unit Number (WFMA)
WW-WSTWTR-INTERCEPTION	2023 Ford F-550	1	19,500 lbs. GVWR Gas, 4WD Crew Cab; 60 (Cab to Axle Length CA), 7.3 L, V8 Gasoline engine TorqShift® 10-Spd. Automatic Horizontal discharge exhaust, Ford Oxford White Code Z1	2203505

10.9 **Availability**

The cab chassis will be available during the fourth quarter of 2023

10.10 Pick-Up

- The Contractor shall be responsible for picking-up the chassis cab vehicles from the City upon commencement of the Contract
- The vehicles will be available for pick-up at the Winnipeg Fleet Management Agency, 185 Tecumseh St., Winnipeg, Manitoba
- Pick-up times will be between 8:00 am and 2:00 pm on any Monday to Friday Business Day
- The Contractor shall be responsible for any related fuel and Insurance costs to and from their facility

**Note:** The vehicles will be fully fuelled at the time of pick-up by the Contractor

10.11 **Drawings**

Drawings

- The Contractor shall supply multi-view CAD drawings to the Contract Administrator upon Award of Contract
- Drawings will be reviewed and approved as part of the Pre-Production planning stages
- Construction of the service body shall not commence until approval is granted

**Service Body**

- |       |                    |   |       |
|-------|--------------------|---|-------|
| 10.12 | Aluminum           | <ul style="list-style-type: none"> <li>• High strength aluminum substructure service body primed and painted with two (2) coats of plastic urethane paint</li> <li>• Colour impregnated to match chassis cab colour (Ford Oxford White Z1)</li> </ul>   | _____ |
| 10.13 | Material           | <ul style="list-style-type: none"> <li>• Corrosion-resistant 10 gauge 5052-H32 marine grade aluminum</li> <li>• The mill certification for the material grade 10 gauge 5052-H32 aluminum marine grade shall be provided or available to the inspector upon request or Contract Administrator.</li> <li>• Double sided construction</li> <li>• Internally reinforced compartment doors</li> </ul> <p><b>State:</b> material thickness: _____</p> | _____ |
| 10.14 | Compartment Layout | <p>Each side of vehicle to have:</p> <ul style="list-style-type: none"> <li>• one (1) front vertical compartment</li> <li>• one (1) horizontal compartment over the wheel well</li> <li>• one (1) rear vertical compartment</li> </ul>  | _____ |

**General Dimensions**

For the purpose of these specifications:

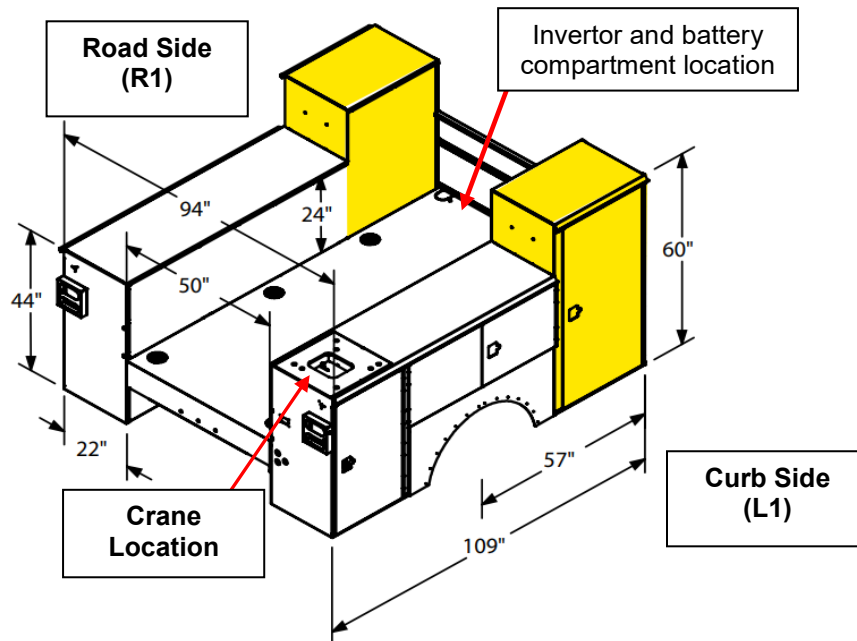
- L – Length along or parallel to chassis longitudinal axis.
- H – Height, vertical.
- D – Depth on horizontal plane across vehicle

**Note:** Unless otherwise specified, all dimensions are in inches and are the nominal sizes.

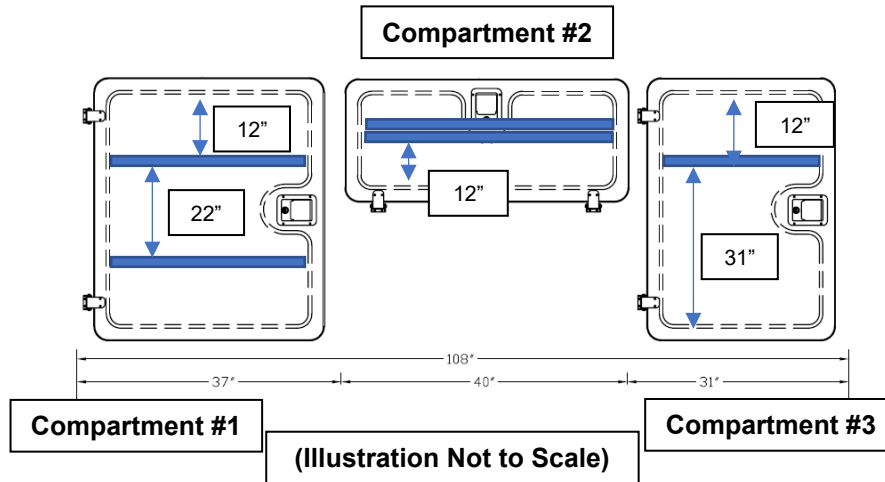
- The designations for the driver's side (also known as the road side) may be referred to as R1 within the documentation.
- The designations for the passenger's side (also known as the curb side) may be referred to as L1 within this documentation.

- |       |             |   |
|-------|-------------|---|
| 10.15 | Body Height | <p><b><u>Drivers Side</u></b><br/>(Road Side – R1):<br/>Approximately 60 in. R1 side (front compartment only), remaining compartments 41" - 44" height</p> <p><b><u>Passenger Side</u></b><br/>(Curb Side – L1):<br/>Approximately 60" in. L1 side (front compartment only) remaining compartments 41" – 44" to accommodate for crane mounting on service body.</p> |
| 10.16 | Body Length | Approximately 109" in.<br>(work platform included)  |
| 10.17 | Body Width  | Approximately 94" – 96" in.   |

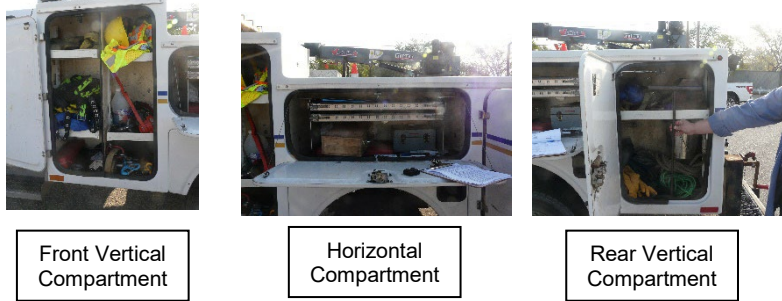
Representative Picture of Aluminum Service Body – This image shown for illustration purposes only and may not be an exact representation of the final product but should be a similar configuration and style.



**Service Body Compartment Layout, Road Side (R1)**



The present configuration of the service body compartment. (Road Side – R1)



COMPARTMENT SIZES – Approximate Dimesnions

1	33" W x 41 - 44" H	19.5" - 22" D
2	46" - 47" W x 22" H	19.5"- 22" D
3	28" W x 41- 44" H	19.5" – 22" D
Length 109" inches	Height 41" – 44" inches	Width 95.25" – 96" inches
Approximate Estimated Weight 2,125 lbs		

**Compartment #1**

10.18 Front Vertical  
Compartment #1  
(Behind truck cab)

- Compartment # 1
- Approximately 33" Length x 41" Height x 22" Depth
- Fixed trays installed
- Qty one (1) 1 Top tray located 12" from top compartment with tray lip 2"
- Qty one (1) 1 Bottom tray located 22" from top tray. Tray lip 2"
- 250 lb. maximum load capacity

**State:**

Compartment Size: \_\_\_\_\_

Tray Size(s): \_\_\_\_\_



10.19 Horizontal  
Compartment #2  
(over wheel well)

**Compartment #2**

- Compartment # 2
- Approximately 46" Length x 22" height H \_\_\_\_\_  
x 22" Depth
- Qty (2) top tray located 12" from top of  
compartment with tray lip 1".
- Qty one (1) pull out tray 1 in. (25 mm) lip
- 250 lb. maximum load capacity

**State:**

Compartment Size: \_\_\_\_\_

Tray Size(s): \_\_\_\_\_

10.20 Rear Vertical  
Compartment #3  
(Hooks)

**Compartment #3**

- Compartment # 3
- Approximately 28" Length x 40" Height x \_\_\_\_\_  
22" Depth
- Qty one (1) Top tray located 12" from top  
compartment with tray lip 2"
- Fixed top shelf with a 1 in. (25 mm) lip  
for extra storage
- 31" approximate opening from top shelf.  
Two (2) hooks on each sidewall  
One (1) shovel hook centered on back  
wall
- Rubber material mounted on walls  
behind hooks to protect service body  
wall and prevent damage to the service  
body structure.
- 250 lb. maximum load capacity

**State:**

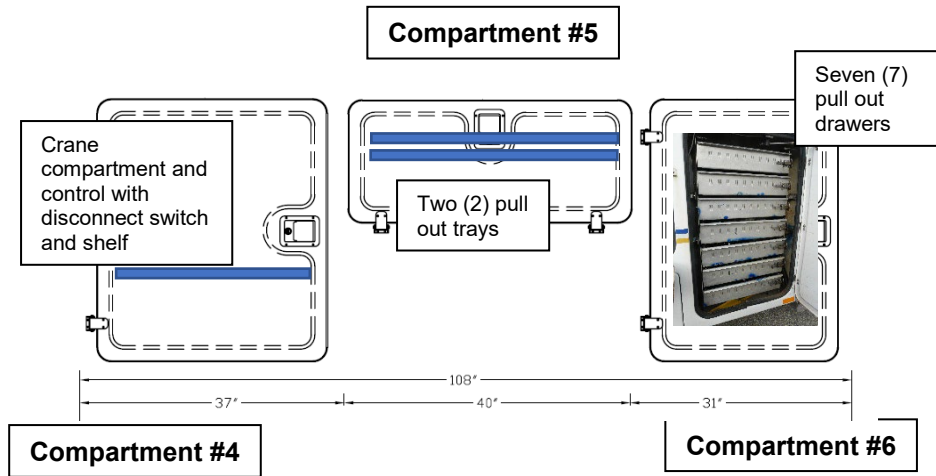
Compartment Size: \_\_\_\_\_

Shelf Size(s): \_\_\_\_\_

Number of Hooks: \_\_\_\_\_



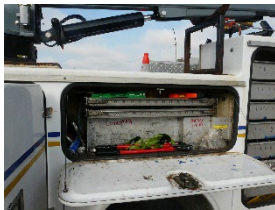
**Service Body Compartment Layout, Curb Side (L1)**



The present configuration of the service body compartment. (Curb Side – L1)



Rear Vertical Compartment



Horizontal Compartment



Front Vertical Compartment

**COMPARTMENT SIZES**

4	33" W x 41 - 44" H	19.5" - 22" D
5	46" - 47" W x 22" H	19.5"- 22" D
6	28" W x 41- 44" H	19.5" – 22" D
Length 108 inches	Height 41" – 44" inches	Width 95.25" – 96" inches
Approximate Estimated Weight 2,125 lbs		

**Compartment #4**

10.21 Rear Vertical Compartment #4

- Compartment # 4
- Approximately 33" Length x 41" Height x 22" Depth
- Crane storage area
- One (1) 12"-14"-inch height
- Fixed top shelf with a 1 in. (25 mm) lip for extra storage
- Compartment shall be reinforced as required to accommodate a 10,000-ft-lb telescopic crane.
- 250 lb. maximum load capacity
- Independent of all other compartments

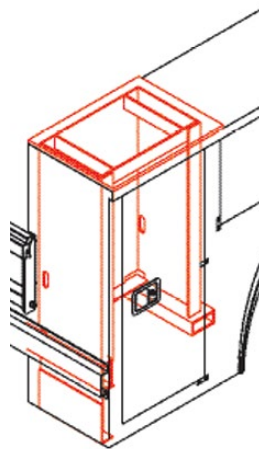
**State:**

Compartment Size: \_\_\_\_\_

Reinforcement of Cabinet: \_\_\_\_\_

Rear Vertical  
Compartment #4 – Illustration  
Crane Reinforcement

Representative Picture of  
Aluminum Service Body with  
crane reinforced compartment –  
This image shown for illustration  
purposes only and may not be  
an exact representation of the  
final product.



10.22 Horizontal  
Compartment #5  
(over wheel well)

**Compartment #5**

- Compartment # 5
- Approximately 46" Length x 22" Height x 22" Depth \_\_\_\_\_
- Qty (2) top tray located approximately 12"- from top compartment with 1" tray lip
- 250 lb. maximum load capacity
- 250 lbs. heavy duty drawer slides

**State:**

Compartment Size: \_\_\_\_\_

Tray Size(s): \_\_\_\_\_

10.23 Front Vertical  
Compartment # 6  
(Behind truck cab)

**Compartment #6**

- Compartment # 6
- Approximately 28" Length x 40" Height x 22" Depth \_\_\_\_\_
- Qty seven (7) cabinet draw pullout
- 250 lb. maximum load capacity
- 250 lbs heavy duty draw slides

**State:**

Compartment Size: \_\_\_\_\_

Cabinet/draw Sizes: \_\_\_\_\_

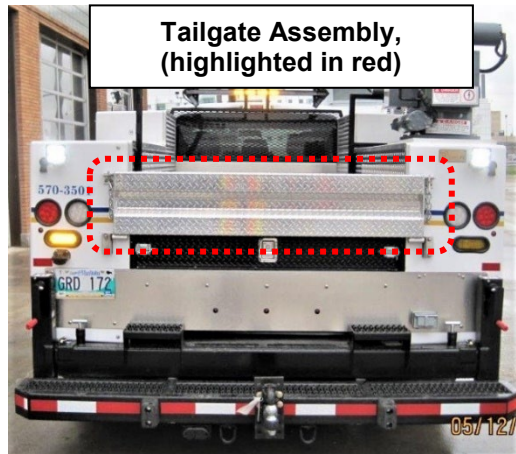
**Service Body Compartment Layout, Tailgate, Rear Compartment and Under Compartment Slider Draw**

10.24 Tailgate

- Automotive style tailgate
- 12-Gauge Galvannealed steel or corrosion-resistant 5052-H32 marine grade aluminum
- All components corrosion protected
- Approximately 10 in. height
- Load rating of approximately 350 lbs.
- Fold-down style with check chains or slam style spring latch with hidden stop opening to 90 degrees
- Tailgate – automotive style tailgate, corrosion-resistant 5052-H32 marine grade aluminum construction for rust preventative, approximately 14” – 16” in. height, fold-down style with check chains.

\_\_\_\_\_

State: \_\_\_\_\_



10.25 Deck Width

Approximately 50” - 55” inches. between aluminum sides

\_\_\_\_\_

10.26 Under Deck Floor

1/8 in. Aluminum plate

\_\_\_\_\_

10.27 Under Deck Compartment  
Tailgate

- 3/16 in. galvanized steel construction corrosion-resistant
- Fold-down type with heavy duty hinges
- Chrome or stainless-steel paddle style door handle and latch

Lubrication

- Grease fitting required on each hinge
- Or
- Hinge assembly and hinge pin is aluminum and has enough clearance that it will not seize up over time
  - The end of the hinge is open and can be sprayed with lubricant if desired



10.28 Deck Width

Approximately 50" inches between aluminum side packs

10.29 Under Deck Floor

1/8" steel plate

10.30 Under Deck Compartment

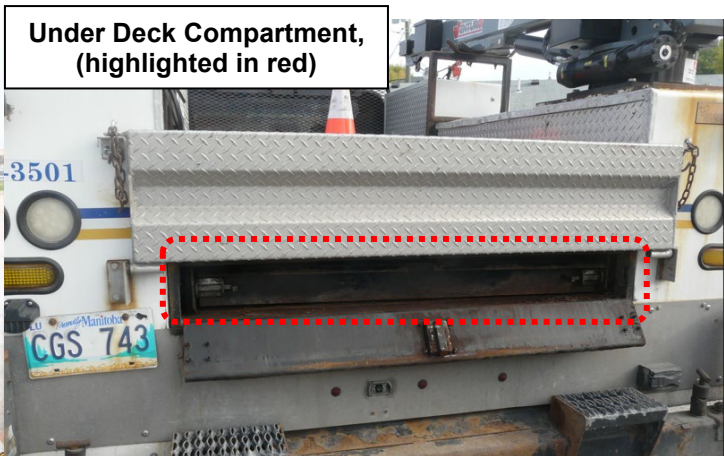
- Rectangular pull-out trap tray
- Approximately 106" – 122" inches long x 7" inches height x 46" inches width
- Locking mechanism quick release for access for pull-out tray draw.

**State:**

Compartment Size: \_\_\_\_\_

10.31 Drain Holes

- 3/4" inch drain holes required at front of under deck compartment



**Standards – Aluminum Service Body (Where Applicable)**

10.32	Service Body/Truck Chassis	<p>Service body must be attached to the truck chassis and properly supported. i.e. bolted and automotive grade U-bolts used to secure service body to truck chassis main frame members.</p> <p>Note: in some cases, the following must be conducted in accordance with service body manufacturers specifications for installation.</p> <p>Body and accessories to be mounted by a CMVSS certified installer in accordance with CMVSS regulations as well as the chassis and body manufacturers recommendations.</p> <p><b>EXAMPLE:</b> Ford &amp; Ram Specific Requirements – The under structure of the service body must be attached to the truck frame using a minimum of four points. The front two mounts closest to the cab of the truck must be spring mounted.</p> <p>Exception for Aerial/Crane Device equipped Service Bodies: If an aerial/crane device is involved, the body is to be spring mounted at the opposite end of the device at the two-service body under structure to truck frame attachment points.</p> <p>After the installation of the body to the chassis verify:</p> <ul style="list-style-type: none"> <li>- Doors shut and seal correctly, if not, adjust striker assembly</li> <li>- Master Lock Rod System, if equipped, functions as advertised, if not, adjust components</li> </ul> <p>After the adjustments are made, perform a water intrusion test.</p>	_____
10.33	Compartment Floor Reinforcement	Compartment # 2 and 6 shall be lined with a <sup>3</sup> / <sub>16</sub> in. steel plate covered with rubber matting	_____
10.34	Compartment Floor Lining	Compartment # 2 and 6 shall be lined with Dri-Dek material or equivalent material having same material specifications	_____
10.35	Isolators	<ul style="list-style-type: none"> <li>• All interfaces between aluminium and steel are to be separated by an approximately <sup>1</sup>/<sub>16</sub> in. thick rubber or neoprene sheet</li> <li>• Shall be bolted through with stainless steel bolts and non-conductive bushings</li> </ul>	_____
10.36	Drain Holes	All body compartments to include a ½ in. drain hole complete with plug	_____

10.37 Doors Design and Weather Stripping

Automotive door design with neoprene seals or equivalent seals having same specifications to minimize moisture and dust intrusion. Automotive grade weather stripping.



10.38 Doors

All vertical compartments doors to vertically hinged

10.39 Door Latches

- Flush mounted with locks for all compartment doors
- All locks shall be keyed alike

10.40 Compartment Door Handles

Tri-Mark door handles, Chrome plated or stainless-steel paddle style handles or equivalent model having same specifications

10.41 Door Hinges and Latches

Chromed or stainless steel with adjustable striker plates

10.42 Compartment Door Openings

Sealed using automotive type bulb gasket door seal

10.43 Door Hold-Open Devices

- Over-centre door holders on front and rear compartments
- Detachable cables on horizontal compartments

10.44 Cabinet Locks

- Service Body cabinets to be keyed to the same key for all cabinets.
- Master Locking system to be installed on both side of the service body for all compartments



Representative Picture of Master Lock System for Aluminum Service Body with crane. – This image shown for illustration purposes only and may not be an exact representation of the final product.

10.45 Service Body Cabinet Light (LED) System

- Aluminum service body cabinets, all to be illuminated with integrated high performance and long-life LED lighting.
- Actuated when the doors are opened



**Grab Handles**

10.46 Grab Handles

- Located for ergonomic access to service body deck
- Diameter 1-1/4" inches (32mm) – 1-1/2" inches (38mm)
- Spacing behind grab bars is approximately 3" inches (76mm)
- Slip resistant
- Bolt on construction and affixed securely and positioned in a manner that does not impede or interfere with the tailgate assembly or obstruct any lighting
- Primed and painted high vis yellow paint

**Final design and installation to be finalized at pre-production meeting**





**Running Boards**

- |       |              |   |       |
|-------|--------------|---|-------|
| 10.47 | Construction | <p>Custom made:</p> <ul style="list-style-type: none"> <li>• Extending entire length of underside of front and rear doors, each side.</li> <li>• AGS 6061 aluminum grip strut, 9-1/2" inches x 2.0" inches x 0.08" inches</li> <li>• Inside kick plate shall consist of 1/8" inches aluminum checker plate</li> <li>• Support brackets shall consist of 1-1/2" inches x 1-1/2" inches x 1/8" inches RC aluminum square tubing with 1/4" inches aluminum support plates</li> </ul> | _____ |
| 10.48 | Mounting     | <ul style="list-style-type: none"> <li>• Cab steps to be mounted using the existing holes in the frame and body where applicable</li> <li>• Use 3/8-16 nut inserts to secure the mounting brackets to the body</li> </ul>   | _____ |



- |       |                 |  |       |
|-------|-----------------|--|-------|
| 10.49 | Rubber Bumpers  | <ul style="list-style-type: none"> <li>• Installed on the body below the horizontal compartments to prevent contact between the compartment door and the body</li> <li>• Two (2) bumpers per door</li> </ul>                               | _____ |
| 10.50 | Wheel Well Area | <ul style="list-style-type: none"> <li>• Shall incorporate a fibreglass or rubber fender flare</li> <li>• Wheel Well panels are removable</li> </ul>   | _____ |
| 10.51 | Drip Edge       | <ul style="list-style-type: none"> <li>• Installed along the full length of the body above the door openings</li> <li>• Designed to prevent water from entering into the storage compartments</li> </ul> <p><b>State:</b> method _____</p> | _____ |
| 10.52 | Deck Width      | Approximately 52 in. between side packs  | _____ |
| 10.53 | Deck Sides      | <ul style="list-style-type: none"> <li>• 3/16 in. steel checker plate</li> <li>• Extended full height up sides of side packs</li> </ul>  | _____ |

10.54	Tie-Down Eyes	<ul style="list-style-type: none"><li>• Eight (8) total</li><li>• Corrosion protected</li><li>• One (1) required near each corner of floor/deck flush mounted</li><li>• Two (2) equally spaced on inside of side packs, mid-height, each side</li><li>• Floor mounted tie-down eyes rated for lifting service body with an overhead crane</li><li>• Three (3) total</li><li>• Corrosion protected</li><li>• One (1) mounted near each corner of the inside wall of service body, flush mounted is possible.</li><li>• One (1) mounted in the middle of inside wall of service body, flush mounted if possible.</li></ul>	<hr/>
		<b>State:</b> method of corrosion protection:	<hr/>
10.55	Front Headboard	<ul style="list-style-type: none"><li>• 3/16" inch aluminum checker plate</li><li>• Approximately 52 in.</li><li>• Top of headboard shall not protrude higher than the lower portion of the rear truck window</li></ul>	<hr/>
10.56	Kick Plate, Rear of Body	<ul style="list-style-type: none"><li>• 3/16" inch. Aluminum checker plate</li><li>• Full width below deck floor level</li></ul>	<hr/>
10.57	Kick Plate, Front	<ul style="list-style-type: none"><li>• 3/16" inch. aluminum checker plate (corrosion-resistant 5052-H32 marine grade aluminum) to protect lower front area of body protruding past chassis cab</li><li>• Each side</li><li>• Approximately 8 in. kick plate height</li></ul>	<hr/>
10.58	Sealant	Deck sides and kick plates caulked along edges using automotive grade elastomeric sealant	<hr/>

**Rear Bumper and Receiver – Truck Chassis/Service Body**

- 10.59 Rear Bumper and Receiver
- Supply/build and install a custom-made rear bumper complete with receiver and hydraulic outriggers for the crane side of the truck service body



**Crane – Mounted to Service Body**

**Crane** - Representative Picture of Service Body Crane – This image shown for illustration purposes only and may not be an exact representation of the final product but should be a similar configuration and style.



- 10.60 Make
- Auto Crane, Venco Venturo Crane or Equivalent model having same industry specifications 10,000 ft-lbs (1.38 ton-m) moment rating and a maximum lifting capacity of 3,200 lbs.

**State:** \_\_\_\_\_

Model

**State:** \_\_\_\_\_

- 10.61 Type
- Electric-Hydraulic
  - Rear corner mounted on curb side (L1) top rear cabinet
  - Telescopic

- 10.62 Rating
- Approximately 10,000 ft-lb

**State:** \_\_\_\_\_

10.63	Lifting Capacities	Approximately 3,200 lbs. @ 2 ft. <b>State:</b> _____	_____
		Approximately 1200 lbs. @ 8 ft. <b>State:</b> _____	_____
		Approximately 1000 lbs. @ 10 ft. <b>State:</b> _____	_____
		Approximately 660 lbs. @ 15 ft. <b>State:</b> _____	_____
10.64	Mounting Location	Rear Curbside corner of service body on top of side packs  <b>Note:</b> Service body to be reinforced in the rear compartment # 4 to allow for installation/operation of the crane.	_____
10.65	Reach	<ul style="list-style-type: none"><li>• 15 ft. telescopically extendable boom length</li><li>• <u>Hydraulic power boom extending to 15 ft.</u></li></ul> <b>State:</b> boom extension details: _____	_____
10.66	Rotation	360 degrees continuous power rotation	_____
10.67	Crane Weight	<b>State:</b> estimated weight of crane _____	_____
10.68	Stowed Boom Length (Typical Stowed Boom Length 7'-5")	<b>State:</b> _____	_____
10.69	Extended Boom Length (Typical Extended Boom Length 1' 8.63")	<b>State:</b> _____	_____
10.70	Width (Typical Width 1' 8.63")	<b>State:</b> _____	_____
10.71	Height, In-Stowed Position Typical Height 2'	<b>State:</b> _____	_____
10.72	Base Plate Typical plate dimensions 1' 1.5" x 1' 4.75"	Must meet crane capacity requirements <b>State:</b> size and thickness _____	_____
10.73	Automatic Overload Protection System	<b>Required:</b> <b>State:</b> _____	_____

10.74 Remote Control Pendant

- Proportional control
- Tethered
- Removable
- Approximately 18 ft. of cable
- IP66 rated and CE certified
- Sealed and water protected for maximum durability.



**Crane Tethered Controller -**

Representative Picture of Crane Tethered Controller – This image shown for illustration purposes only and may not be an exact representation of the final product but should be a similar configuration and style.

10.75 Circuit Breaker

**Required:**  
Approximately 150 Amp

10.76 Master Disconnect Switch

**Required:**  
Lockout tag disconnect switch located in compartment #4.

Picture shown for illustration only of disconnect switch in compartment #4.

The final design may not be an exact representation of the final product but should be a similar configuration and style/functionality.



10.77 Outriggers

**Required:**

- Steel construction including all components for rear installation
- Outriggers shall include a heavy-duty cross tube rated for crane capacity
- Hydraulic extendable with optional crank-down leg on each side
- The outriggers shall be incorporated into a custom-made rear bumper.

Representative Picture of Hydraulic Crane Outrigger – This image shown for illustration purposes only and may not be an exact representation of the final product but should be a similar configuration and style/functionality.



10.78 Crane Cover

- Supply one (1) all weather crane cover for base crane assembly

10.79 Operator's Manual

**Required:**

10.80 Location

Rear, curb side, vertical top compartment #4

Location crane mounted on service body

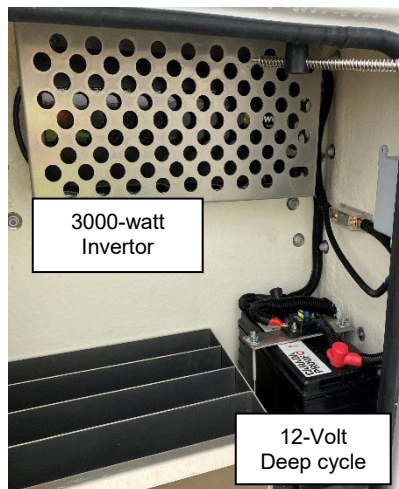


**Crane location on service body;**  
Representative Picture given for reference. This image shown for illustration purposes only and may not be an exact representation of the final product.

		<b><u>Back-Up Alarm</u></b>	
10.81	Back-Up Alarm	<ul style="list-style-type: none"><li>• SWS model 99202 or equivalent model having same specifications and functionality</li><li>• Mounted between frame rails at rear of vehicle</li><li>• Protected from damage and road spray</li></ul>	_____
		<b><u>Rear View Camera</u></b>	
10.82	Rear View Camera	<ul style="list-style-type: none"><li>• The cab and chassis will be supplied (unattached) with a rear-view camera</li><li>• Rear-view camera prep kit to include camera, screen (or displayed in rear view mirror) mounting hardware and OEM wiring harness</li><li>• To be installed by body supplier</li><li>• The installation of the rear-view camera is carried out by a professional installer in order to guarantee an unobstructed view during the process of reversing.</li></ul>	_____
		<b><u>Conspicuity Tape</u></b>	
10.83	Conspicuity Tape	Truck-Lite 98127 or equal, affixed or equivalent model having same specifications	_____
		<b><u>Grease Fittings</u></b>	
10.84	Grease Fittings	<b>Required:</b> On tailgate release mechanisms, pivot points and drop-down side linkages	_____
		<b><u>Inverter</u></b>	
10.85	Inverter	CSA approved <ul style="list-style-type: none"><li>• 110 Volt, 2500 Watts minimum</li><li>• Make: Xantrex</li><li>• Model: XPower 3000 Inverter or equivalent rated unit model having same specifications or functionality</li><li>• Part Number: 813-3000-UL</li><li>•</li></ul> <b>State:</b> Make: _____ Model: _____	_____

10.86 Deep Cycle Battery

- Group 31, approximately 900 CCA or equivalent Model
- Mounted in the same location as inverter in a reinforced compartment



10.87 Installation

- All exposed inverter terminals shall be:
- Coated with a dielectric grease
  - Completely covered with shrink wrap tubing or rubber fittings
  - The battery lid cover supplied to provide protection for the terminals, ensuring their shielding.

10.88 Location

Front of service body bed with inverter and battery mounted in self-contained aluminum box.

10.89 Wiring

- Location to be confirmed at pre-production meeting.**
- Wired through ignition through dash mounted inverter mfg. remote switch
  - Labeled
  - Inverter to be complete with suitable solenoid and battery isolator

10.90 Installation

- No exposed inverter terminals
- Terminals coated with a dielectric grease
  - Completely covered with shrink wrap tubing or rubber fittings



10.91 Receptacle



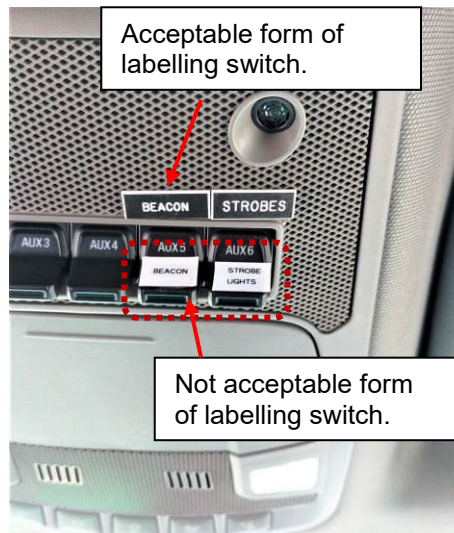
- One (1) required
- Duplex receptacle
- Mounted at front of service body, passenger side (curb side – L1)
- Forward facing
- Mounted as high as practicable so as not to interfere with interior shelf positioning
- The receptacle shall be GFI, CSA approved
- Weatherproof type with hinged covers with automatic cover closure/spring closure mechanism built in to the housing cover.

**Location to be confirmed at pre-production meeting.**

**Lighting**

10.92 Mini Light Bar - Amber

- Whelen R2LPPA Series Amber LED Mini Light Bar or equivalent
- Mounted to center top of cab
- Protected by branch guard – heavy duty construction
- Mini Light Bra shall be wired “Hot” (i.e. able to use without the key on) wired through a single OEM dash mounted switch or on the control panel enclosure. labelled “Light Bar” with a permanent type engraved style label
- Switch shall be capable of amber mode

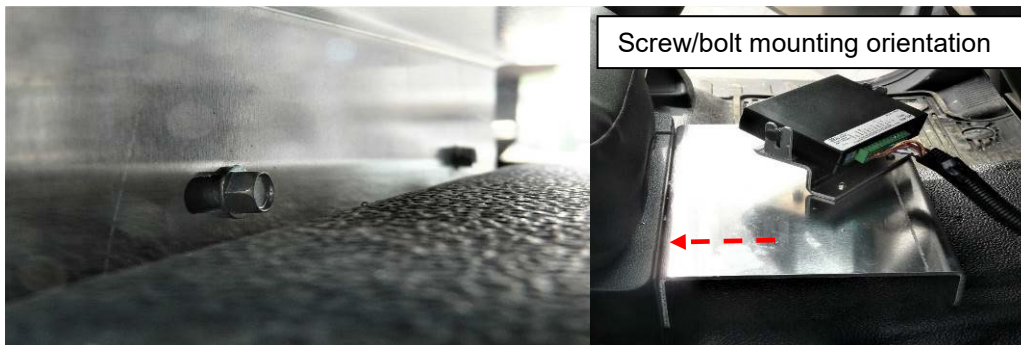


10.93 Directional Arrow  
(Traffic Advisor)

- SWS 57748-2
- 48 in. x 22 in.
- Cab shield mounted
- Rear facing
- Controller mounted in-cab, reference picture below for mounting location.



10.94



Mounted to the frame on the center console base. DO NOT mount through center console base transmission tunnel.

**Location to be confirmed at pre-production meeting.**

**Lighting – Where applicable/requirement in accordance with application.**

10.95	Amber Strobe Lights (Warning)	<ul style="list-style-type: none"><li>• Four (4) total</li><li>• Whelen 5GA00FAR</li><li>• Mounting garments flush with service body</li><li>• Two (2) located outside of 3-Light cluster, rear facing in rear kick plate</li><li>• Two (2) located in service body facing near front</li><li>• Amber Strobes shall be wired “Hot” (i.e. able to use without the key on) wired through a single OEM dash mounted switch or on the control panel enclosure. labelled “Strobes” with a permanent type engraved style label</li></ul>	_____
10.96	Light Switch Configuration(s)	<p>Locations to be confirmed/finalized at pre-production meeting</p> <p><u>On Vehicles equipped with Amber:</u></p> <ul style="list-style-type: none"><li>• Amber strobes (rear ovals) controlled with one switch</li><li>• Mini Light Bar controlled with one switch capable of amber mode</li><li>• Traffic Advisor – separate controller</li></ul> <p><u>On Vehicles equipped with Amber/Blue:</u></p> <ul style="list-style-type: none"><li>• Amber and Blue strobes (rear ovals) controlled with one 3-way switch – Amber-Off-Amber/Blue</li><li>• Mini Light Bar controlled with one 3-way switch – Amber-Off-Amber/Blue</li><li>• Traffic Advisor – separate controller</li></ul>	_____
10.97	Combination Turn/Stop and Taillights	<ul style="list-style-type: none"><li>• Top Mounted - One (1) per side</li><li>• Bottom Mounted - One (1) per side</li><li>• P/N Truck-Lite 44302R with P/N 44710 mounting grommets</li></ul>	_____

10.98	Back-Up Lights	<ul style="list-style-type: none"><li>• One (1) per side</li><li>• P/N Truck-Lite 44206C with P/N 44710 mounting grommets</li></ul>	_____
10.99	3-Light Cluster	<ul style="list-style-type: none"><li>• Three (3)</li><li>• P/N Truck-Lite10250R with P/N 10403 mounting grommets</li><li>• Located to protect from damage</li></ul>	_____
10.100	Clearance Lights	<ul style="list-style-type: none"><li>• Grote 49333 and 49332 with mounting grommets</li></ul> Or <ul style="list-style-type: none"><li>• Truck-Lite 33050R and 33050Y with 3370 mounting grommets</li></ul> <p><b><u>Note:</u></b> shall not protrude beyond the dump body</p>	_____
10.101	Harness	Truck-Lite 50 Series or equivalent harness system, properly routed, internally grounded and secured	_____
10.102	Amber Strobe Lights (Warning)	<ul style="list-style-type: none"><li>• One (1) per side</li><li>• Whelen 5GA00FAR</li><li>• Mounting grommets</li></ul>	_____
10.103	License Plate Light	<ul style="list-style-type: none"><li>• Complete with license plate bracket</li><li>• P/N Truck-Lite 36140 (Light)</li><li>• P/N Truck-Lite 36710 (Bracket)</li></ul>	_____
10.104	Rear Light Mounting Location (Rear Sill)	<ul style="list-style-type: none"><li>• Rear-Corner Clearance Lights, qty two (2), one per side</li><li>• Combination Turn/Stop and Taillights, qty two (2), one per side</li><li>• Back-Up Lights, qty two (2), one per side</li></ul> <p>The lights shall be situated so that no debris contacts the lights while dumping</p> <p><b>Location of Lights to be confirmed at pre-production meeting</b></p>	_____
10.105	Rear Light Mounting Location (Top-Rear of Body)	<ul style="list-style-type: none"><li>• Combination Turn/Stop and Taillights, qty two (2), one per side</li><li>• Amber Strobe Lights, qty two (2), one per side</li><li>• 3-Light Cluster, qty three (3)</li></ul> <p><b>Location of Lights to be confirmed at pre-production meeting</b></p>	_____
10.106	Clearance Light Mounting Locations:	<ul style="list-style-type: none"><li>• Front – qty two (2), located one on each bottom corner of body</li><li>• Sides – qty two (2) per side, located on front and rear bottom corners</li><li>• Rear – qty two (2), located one on each bottom or top corner</li></ul> <p><b>Location of Lights to be confirmed at pre-production meeting</b></p>	_____

**Options**

Note: Options to be priced only as indicated on Form B: Prices – Where Applicable

10.107 **Option1: Amber/Blue Mini Light Bar Package**

- Whelen R2LPHM Amber/Blue LED Mini Light Bar or equivalent functionality product



- Blue Strobe Lights - Whelen L31HMF or equivalent functionality product



- Amber Strobe Lights - Whelen 5GA00FAR or equivalent functionality product



- Mini Light Bar shall be wired “Hot” (i.e. able to use without the key on), wired through a single OEM dash mounted switch or on the control panel enclosure, labelled “Light Bar Amber/Blue” with a permanent type, engraved style label.
- Mini Light Bar to be controlled by a single 3-Way switch with the following functions: Amber – Off – Amber/Blue



**Location of Mini Light Bar Package to be confirmed at pre-production meeting**

**Welding Standards**

10.108	Welds	Continuous welds	
10.109	Standard	CSA Standard W47.1-30, (CSA W47.1, Certification of companies for fusion welding of steel) and W59-03, (CSA W59, Welded steel construction).	

**Where Applicable:**

CSA W47.2 Fusion Welding of Aluminium Company Certification,  
CSA W59.2 - 2018 – Welded Aluminium Construction

10.110	Weld Spatter	All weld spatter must be removed prior to final finish	
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**Finish**

10.111	Steel	Match chassis cab colour: Ford Oxford White Z1	_____
10.112	Aluminum Components	Unfinished Material Grade corrosion-resistant 5052- H32 marine grade aluminum	_____
10.113	Deck	Deck surface properly cleaned and coated with: <ul style="list-style-type: none"> <li>• Rust-Oleum AS5400 Anti-Slip Floor Covering or equivalent performance product</li> <li>• Color Black</li> </ul>	_____
10.114	Preparation	All steel components unless otherwise noted in these specifications shall be sandblasted, properly cleaned, primed and finished with the Endura, DuPont or Tristar paint process in order to prevent rust formation	_____
10.115	Primer	<b>Required:</b> Epoxy or Polyurethane primer  Endura EP321 Intermix Epoxy Primer or DuPont polyurethane or Tristar Coatings Inc. Epoxy Primer  Two (2) coats – Dry Film Thickness 3.0 – 4.0 mils	_____
10.116	Paint	<b>Required:</b> Polyurethane <b>Colour:</b> 2023 Ford Oxford White Code Z1  Endura EX-2C or DuPont Polyurethane or Tristar Coatings Inc. Polyurethane  Two (2) coats: 3 - 5 mils Wet Film Thickness with a total combined overall average Dry Film Thickness of 4 – 6 mils	_____

**Clearance**

10.117	Clarence	Clearance between aluminium service body and the back of the truck cab shall be a minimum of 3" inches in accordance with the Cab & Chassis Incomplete Vehicle Manual.	_____
10.118	Tire Clarence	Aluminium service body shall provide for an approximate 4" inch clearance with rear springs fully loaded.	_____

**Installation**

10.119	Not-Permitted	<ul style="list-style-type: none"> <li>• Drilling on chassis frame flanges</li> <li>• Welding on the chassis frame</li> </ul>	_____
10.120	Holes	<ul style="list-style-type: none"> <li>• When necessary and permitted in accordance with manufacturers specifications and regulations holes in the frame shall be drilled, remade and deburred to fit bolts,</li> <li>• Holes required to run wires through shall be drilled and deburred (not punched), grommited and sealed as required when permitted.</li> </ul>	_____
10.121	Isolators	<ul style="list-style-type: none"> <li>• All interfaces between aluminum and steel are to be separated by an approximate 1/16" inch thick rubber or neoprene sheet.</li> <li>• Shall be bolted through with non-ferrous stainless-steel bolts and non-conductive bushings.</li> </ul>	_____
10.122	Mounting Brackets	<ul style="list-style-type: none"> <li>• Shall be bolted to the frame using Grade-8 fasteners</li> </ul>	_____
10.123	Mounting Standards	<ul style="list-style-type: none"> <li>• Mounting of the body shall be in accordance with the chassis manufacture's guidelines for body mounting, including but not limited to guidelines for tire and suspension clearance and fuel filler installation.</li> </ul>	_____
10.124	Mountings Standards	<ul style="list-style-type: none"> <li>• If applicable the aluminum side packs shall be mounted to the steel deck using cadmium plated carriage bolts and fender washers</li> <li>• Bearing plates shall be used in high stress areas.</li> </ul>	_____
10.125	Mounting Standards	<ul style="list-style-type: none"> <li>• Any holes required in the fame if permitted must be drilled, reamed and deburred to fit the bolts.</li> </ul>	_____
10.126	Mounting Standards	<ul style="list-style-type: none"> <li>• All non-continuous body seams (joints) shall be caulked with an automotive grade elastomeric sealant</li> </ul>	_____
10.127	Bolted Connections to Chassis Frame	<ul style="list-style-type: none"> <li>• Mounting to the chassis frame is permitted however the bolt/nut assembly must have no gap or skewed connections are allowed; bolt/nut connection must be perpendicular to the clamping surface.</li> <li>• <b><u>Not Recommended</u></b>, However, if hole is to be drill to accommodate bolt/nut assembly, ensure hole is drilled far enough away from any seams, splices or overlays in the chassis frame to ensure bolted and nut/washer connection will be flat, ensure total contact with chassis frame.</li> </ul>	_____



The assembly of bolt and nut through the chassis frame must adhere to certain guidelines. In the event that the hole is situated on a curved surface or where a transition occurs in the frame, it is not recommended to utilize it as a mounting location.

However, if the hole location is to be utilized as a mounting location, the following protocol must be observed: A levelling washer must be employed to ensure that the bolt clamping force is fully applied and perpendicular to the frame, with no gaps permitted.

The bolt/nut assembly, located on the seam, is deemed unacceptable.

### **Lighting and Electrical Standards**

10.128

Conformance:

- LED Lighting
- C.M.V.S.S.
- Manitoba Highway Traffic Act.
- City of Winnipeg Lighting Visibility Standard

<http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>

\_\_\_\_\_

10.129

Lighting:

- Supplier installed
- LED
- Stop / turn / tail lights
- Clearance lights
- Back-up lights
- 3-Light cluster
- Two (2) strobe lights in front Grille, (location to be confirmed at pre-production meeting and signed off by contract administrator).

\_\_\_\_\_



- Two (2) strobe lights in lower back plate of service body



- 10.130 Visibility:
- Taillights, back-up lights and warning lights to be fully visible when tailgate is lowered to horizontal position
  - No clearance light shall protrude beyond the service body

- 10.131 Identification:
- All dash mounted warning lights and switches to be identified with permanent, engraved type labels
  - No labels to be located on upper surface of dash



**Not Acceptable – Not Permanently Label**



**Picture above shows example of permanent engraved label switches.**

- 10.132 LED Strobe Lights:
- Shall be wired "Hot" (I.e. able to be used without the key on)
  - All LED strobe lights shall be wired through the ignition, wired through a single OEM dash mounted switch or on the control panel enclosure, labelled "Strobes" with a permanent type, engraved style label

- 10.133 Connection System:
- Weather Pack Sealed Connection System or equivalent system having same industry specifications. ("J-Box" and shrink tube acceptable)



- 10.134 Grommets:
- Rubber grommets unless otherwise specified



- 10.135 Harnesses:
- Harness system, properly routed and secured.
  - All harnesses shall be internally grounded, no exceptions
  - Colour coded or numbered

10.136 Junction box:  
• Complete with necessary compression fittings, required for all vehicle lighting harness connections  
• Securely located – inside rear of truck frame  
• Waterproof  
• Readily accessible for servicing  
• Protected from road spray

10.137 All Plug-In Connectors:  
• All plug-in connectors shall be coated with Truck-Lite NYK Corrosion Preventive Compound prior to assembly

10.138 Compartment Lights:  
• LED continuous “rope” style lighting in all service body compartments, properly secured to prevent damage

10.139 Wiring:  
• All wiring to be colour coded, loomed and properly secured.  
• All LED strobe lights shall be wired through the ignition, wired through a single OEM dash mounted switch or on the control panel enclosure, labelled “Strobes” with a permanent type, engraved style label

10.140 Electrical Connectors:  
• All electrical connectors to be crimped, soldered and then sealed using heat shrink tubing

10.141 Joining of Wires:  
• All joining of wires to be soldered and sealed using heat shrink tubing or approved OEM weather tight connections

**Note: Crimp on electrical connectors for joining wires are not acceptable**

10.142 Wiring Routing:  
• Any holes required to run wires through shall be drilled and deburred (not punched), grommets and sealed

11.0 **WARRANTY:**

11.1 All warranty information shall be detailed and **include all exclusions.**  
  
The Contractor shall provide all published warranty information upon delivery of the equipment.  
  
Bidder shall state all warranty information.

11.2 Body **State:** \_\_\_\_\_

11.3 Crane **State:** \_\_\_\_\_

12.0 **DELIVERY:**

12.1 **Delivery Point:**  
  
The complete unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid, including invoice and N.V.I.S. (if applicable) to the WFMA 185 Tecumseh Street, Winnipeg MB.

12.2 **Delivery Time:**

Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days.

**State:** earliest delivery time from date of award: \_\_\_\_\_

12.3 **Delivery Contact:**

The Contractor shall contact the Contract Administrator prior to delivery of the equipment.

12.4 **P.D.I.:**

A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list

13.0 **MANUALS:**

13.1 **Manuals:**

The following manuals shall be supplied with the equipment when delivered:

**Operator** – Two (2) Copies

- One (1) copy shall be sent to the Equipment Operator Training Branch
- One (1) copy to be left with the equipment

**Parts and Service**

- One (1) complete set including preventative maintenance schedules

**Note:** CD or USB flash drive is preferred where available.

14.0 **PARTS/LABOUR PRICING:**

14.1 Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. **State percentage discount**

14.2 Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. **State percentage discount**

15.0 **FIRST SERVICE PREVENTATIVE MAINTENANCE KIT:**

15.1 If applicable, in order to assure minimum downtime of the Equipment in future service, the Contractor must provide one (1) complete replacement set of new OEM filters for each unit purchased. The set of required filters shall include (if applicable to the equipment type) air, fuel, oil, transmission, cab and hydraulic, or otherwise all known necessary common replacement filters required for the first preventative maintenance servicing and first transmission service.

15.2 The Contractor must provide a list of factory recommended lubricants to be used with the equipment, as well as a complete cross reference guide for all warranty approved lubricants and filters that can be used during Preventative Maintenance servicing.