

FORM N: DETAILED SPECIFICATIONS 24003

SUPPLY AND INSTALLATION OF FLAT DECK FUELING TRUCK SERVICE BODY

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 a **Supply and Installation of Flat Deck Fueling Truck Service Body** and other equipment and features as specified herein.
- 2.2 The **Supply and Installation of Flat Deck Fueling Truck Service Body** shall be a new **2024** model year or newer.
- 2.3 The **Supply and Installation of Flat Deck Fueling Truck Service Body** 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 **Supply and Installation of Flat Deck Fueling Truck Service Body** shall comply with the applicable regulations:

Standard - Specification/Regulation

Internet URL

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

Standard - Specification/Regulation

Internet URL

Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker:

<http://web2.gov.mb.ca/laws/regs/index.php?act=h60>

Canadian Standards Association CSA:

<http://www.csagroup.org>

Under Writers of Canada U/L:

<http://www.ulc.ca>

Society of Automotive Engineers SAE:

<http://www.sae.org>

City of Winnipeg Lighting Visibility Standard:

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

Manitoba Building Code:

<https://web2.gov.mb.ca/laws/regs/current/pdf-regs.php?reg=31/2011>

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 **Service Bodies** 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 **Service Bodies** 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 **Service Bodies** shall have five (5) years continuous experience manufacturing **Service Bodies**.
- 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 **Service Bodies** of the type being offered.

Representative Picture Typical Completed Flat Deck Fueling Truck Service Body on Truck Chassis, Pictured below – Passenger’s Side View (R1).



10.0 **SPECIFICATIONS**

Scope

10.1 Supply and Delivery of **Flat Deck Fueling Truck Service Body** complete with steel deck which will be mounted on a City owned cab and chassis. _____

The **Flat Deck Fueling Truck Service Body** 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 _____

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)

10.6

- 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

10.7 **Flat Deck Fueling Truck Service Body 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)
PW-PARKS-SOUTH	2024 Ford F-550	1	19,500 lbs. GVWR Diesel, 4WD Extended Cab. 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	2303330

10.8 **Availability** The cab chassis will be available during the second quarter of 2024

- 10.9 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

10.10 **Drawings**

Drawings – Contractor shall supply

- 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
- Contractor to provide a weight analysis after pre-production meetings
- Drawings are to include all dimensions, materials, and specifications as required
- Drawings are to be revised as requested by the City
- Multiple drawing iterations may be required
- Construction of the service body shall not commence until approval is granted
- **Note:** Drawings can be supply as hard copies, PDF's or electronically

Steel/Galvanized Flat Deck Fueling Truck Service Body

10.11	Material	<ul style="list-style-type: none">• Fabricate steel/galvanized flat deck capable of support two (2) transfer tanks, tires, tool compartments and miscellaneous shop tools for mobile repairs• Any other material used in the fabrication should be corrosion-resistant; i.e. 10 gauge 5052-H32 marine grade aluminum is acceptable• The mill certification for the all materials grades should be available upon request; Steel, galvanized, 5052-H32 aluminum marine grade shall be provided or available to the inspector upon request or Contract Administrator.• Double sided construction• Internally reinforced compartment doors	_____
10.12	Compartment Interiors	Left in natural unpainted service body finish	_____
10.13	Compartment Layout	<ul style="list-style-type: none">• one (1) front vertical storage compartment which is situated behind front cab and is the entire width of the flat deck and one shelf position approximately in the middle of the compartment to accommodate air compressor	_____ _____



Front vertical compartment



Air compressor in front vertical compartment and accessible

Each side of vehicle to have:

- one (1) horizontal storage compartment behind front cab and mounted under the flat deck
- one (1) rear storage horizontal compartment mounted under flat deck behind the wheel well

Picture showing lower storage compartments
Mounted under the flat deck



General Dimensions

For the purpose of these specifications:

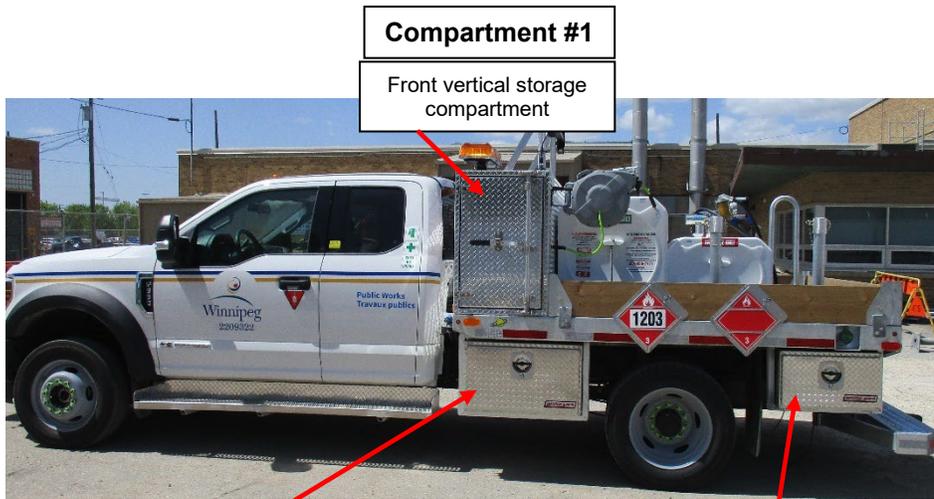
- L – Length along or parallel to chassis longitudinal axis.
- H – Height, vertical.
- D – Depth on horizontal plane across vehicle

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

- Left and right is always based on perspective when sitting in the vehicle, so:
- Driver side is the left - L1
- Passenger side is on the right – R1.
- The designations for the **Driver's side** may be referred to as **L1** within the documentation.
- The designations for the **Passenger's side** may be referred to as **R1** within this documentation.

10.14	Body Flat Deck Height	<p><u>Driver's Side – L1</u></p> <p>Sate: _____</p> <p><u>Passenger's Side – R1</u></p> <p>Sate: _____</p> <p>State: Body Height: _____</p>	_____
10.15	Body Length	<p>Approximately 132" inches (work platform included)</p> <p>State: Body Length: _____</p>	_____
10.16	Body Width	<p>Approximately 90" – 96" inches</p> <p>State: Body Width: _____</p>	_____

Flat Deck Fueling Truck Service Body Compartment Layout, Driver's Side (L1)



The present configuration of the flat deck fueling truck service body compartments.
(Driver's Side – L1)

COMPARTMENT SIZES – Approximate Dimesnions		
1	32" height x 20 width Approximate	Width of flat deck
2	18" height x 30" length Approximate	18" D
3	18" height x 24" length Approximate	18" D

- 10.17** **Compartment #1**
Front Vertical
Compartment #1
(Behind truck cab)
- Compartment # 1
 - Approximately 32" inches height x 20" inches width x with of flat deck
 - One shelf, approximate in the middle height location of compartment
 - Accommodate compressor
 - 250 lb. minimum load capacity
- State:**
Compartment Size: _____

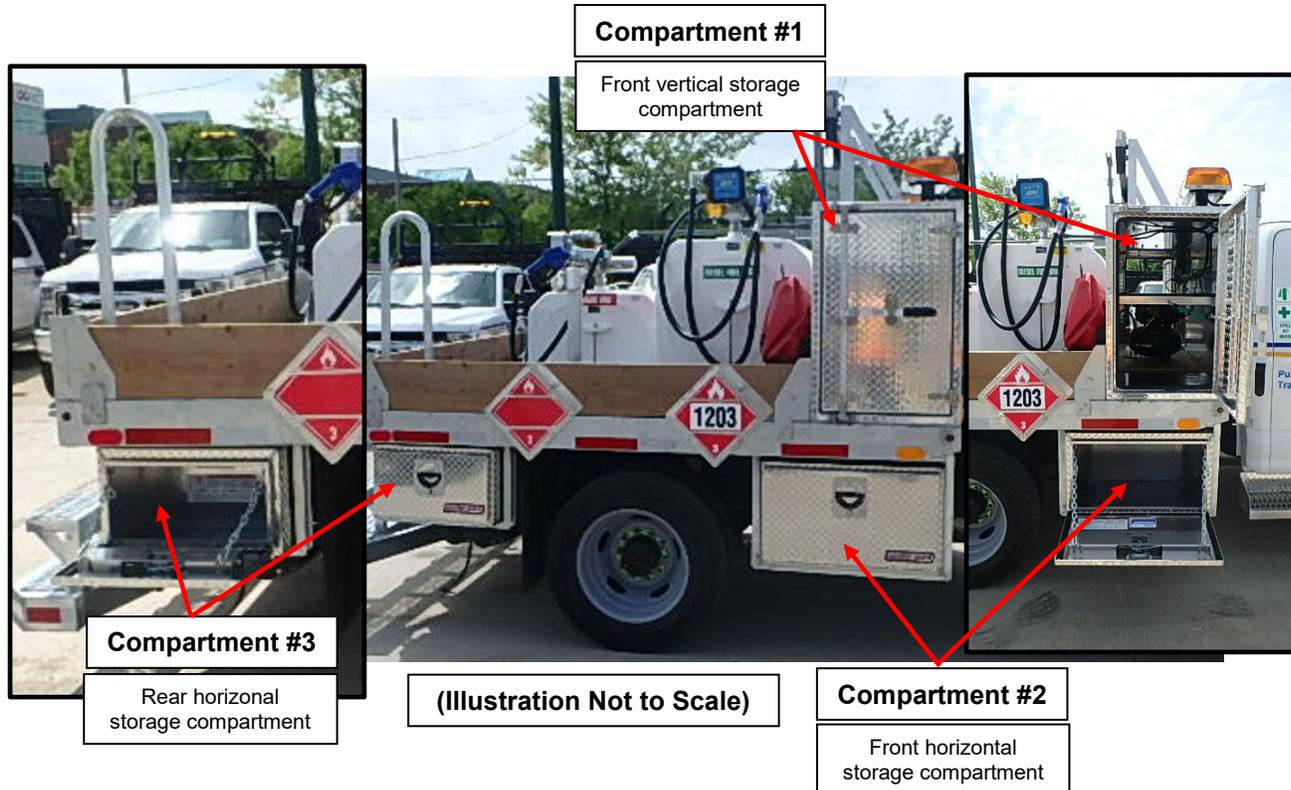
- 10.18** **Compartment #2**
Horizontal
Compartment #2
(Front horizontal storage
compartment behind truck cab)
Mounted under flat deck
- Compartment # 2
 - "Weather guard" Alumimum underbed toolboxes (Model 631-0-02 Under Bed Box, Alumimum, Compact, 5.4 cu ft) or equivalent style and functionality
 - Approximately 13.5" inches height x 30" inches width x 18" inches depth
 - 250 lb. minimum load capacity
- State:**
Compartment Size: _____

Compartment #3

10.19 Rear Horizontal
Compartment #3
(Back horizontal storage
compartment
Behind wheel well)
Mounted under flat deck

- Compartment # 3
- “Weather guard” Aluminum underbed toolboxes (Model 627-0-02 Under Bed Box, Aluminum, Compact, 4.3 cu ft or equivalent style and functionality)
- Approximately 23” inches height x 9/-3/4” inches width x 18” inches depth
- 250 lb. minimum load capacity

Flat Deck Fueling Truck Service Body Compartment Layout, Passenger’s Side (R1)



The present configuration of the flat deck fueling truck service body compartments. (Passenger’s Side – R1)

COMPARTMENT SIZES – Approximate Dimesnions		
1	32” height x 20” width Approximate	Width of flat deck
2	18” height x 30” length Approximate	18” D
3	18” height x 24” length Approximate	18” D

Compartment #1

10.20 Front Vertical
Compartment #1
(Behind truck cab)

- Compartment # 1
- Approximately 32” inches height x 19.5” inches width x with of flat deck
- One shelf, approximate in the middle height location of compartment
- Accomodate compressor
- 250 lb. minimum load capacity

State:

Compartment Size: _____

Compartment #2

10.21 Horizontal
Compartment #2
(Front horizontal storage
compartment behind truck cab)
Mounted under flat deck

- Compartment # 2
- “Weather guard” Alumimum underbed toolboxes (Model 631-0-02 Under Bed Box, Alumimum, Compact, 5.4 cu ft) or equivalent style and functionality
- Approximately 13.5” inches height x 30” inches width x 18” inches depth
- 250 lb. minimum load capacity

State:

Compartment Size: _____

Compartment #3

10.22 Rear Horizontal
Compartment #3
(Back horizontal storage
compartment
Behind wheel well)
Mounted under flat deck

- Compartment # 3
- “Weather guard” Alumimum underbed toolboxes (Model 627-0-02 Under Bed Box, Alumimum, Compact, 4.3 cu ft or equivalent style and functionality
- Approximately 23” inches height x 9-3/4” inches width x 18” inches depth
- 250 lb. minimum load capacity

10.23 Extended Cab Area

- Installation of a Pack Rat Drawer Unit or equivalent to be access from Driver’s side of the Cab, (L1).

Final size to be determine a pre-production meeting and finalized by Contract Administrator.



Representative Picture of Pack Rat Drawer System for installation in extended cab area.

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.

Fuel Tanks – Slip/Transfer Tanks

10.24 Slip Tanks

Slip Tank – Flat Deck Installation

- Installation meets Canadian General Standards Board updated the CAN/CGSB-43.146 Standard
- Required Installation of one (1) slip Tank Diesel - 545 Liters minimum
- Required Installation of one (1) slip Tank Gas- 290 Liters minimum

10.25 12 Volt Fuel Transfer Pump

12V Fuel Transfer Pump with fuel meter installed for each slip tank. One for Diesel tank and one for gas tank. Transfer pump must have minimum:

- Transfer pump equipment to be mounted and accessible on Passenger side of vehicle (R1)
- Flowrate: Up to 15 GPM (57 LPM)
- Duty Cycle: 30 mins. On / 30 mins. Off

12 Volt Fuel Transfer Pump Required for each slip tank.



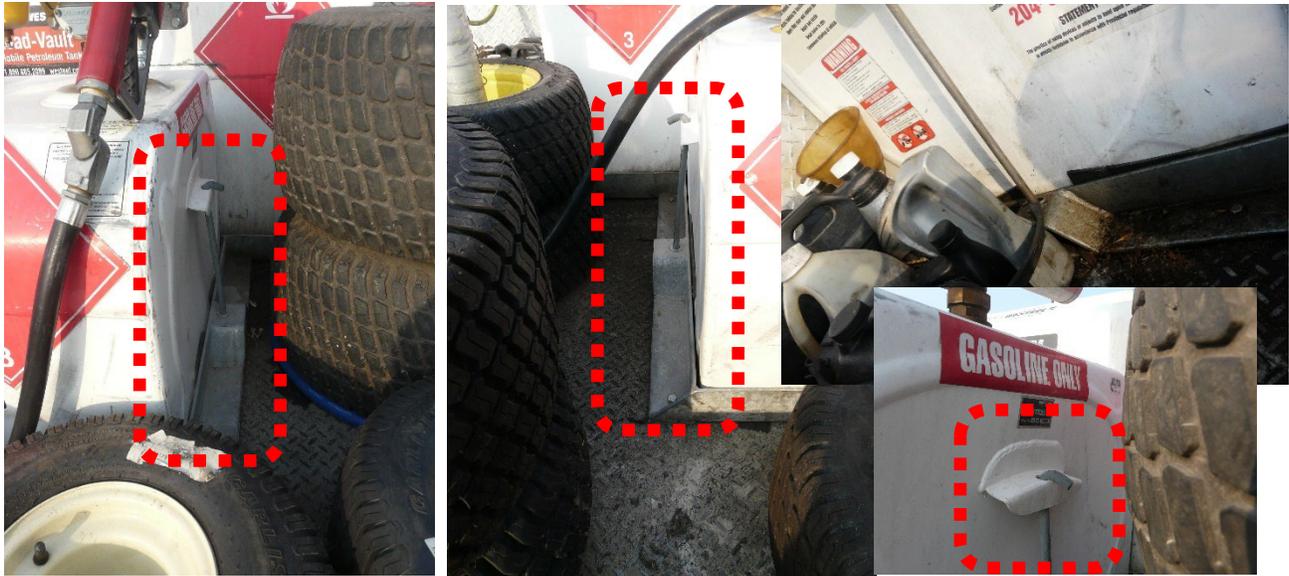
10.26 Heavy Duty Spring Retractable Bonding Reel

- Installation of Heavy-Duty Spring Retractable Bonding Reel on back of front vertical storage compartment; passenger side (R1).
- Model Number; Reelcraft G3050, serial Number 20200102 or equivalent make and model with same functionality and safety requirements.



10.27 Slip tanks mounted on flat deck behind front vertical storage compartment.





Pictures showing mounting of the transfer/slip tanks in the bed of the flat deck.

10.28 Placards

Gasoline and diesel require placards, with UN number, be visible on both sides of flat deck truck and on transfer tanks.



10.29 Industrial 100-Foot Air Hose Reel

- Installation of industrial 100-foot retractable hose reel mounted on Driver's side (L1) on vertical storage compartment and easy accessible.
- Connect to air compressor in front vertical storage compartment.

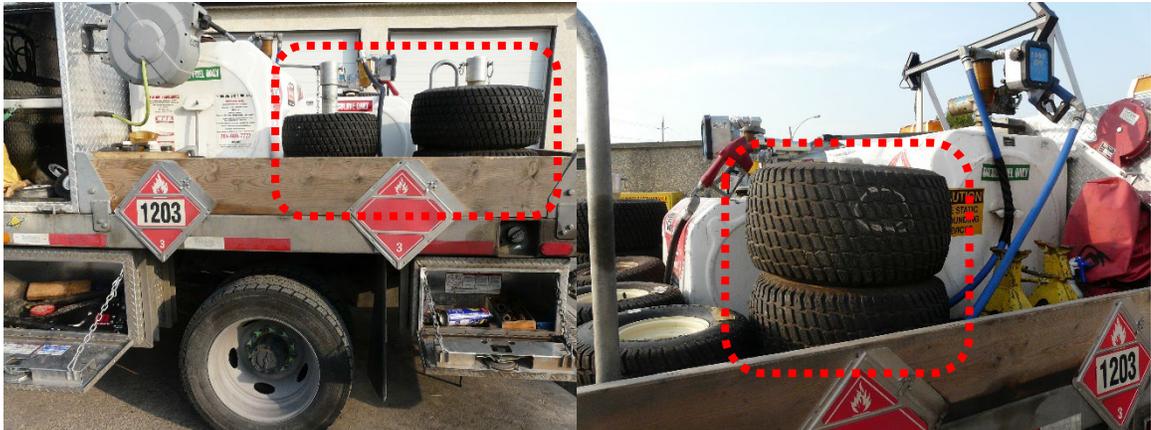
10.30 Air Compressor

- Minimum 1.5 HP, 3.0 CFM, 120 volts plug connection, quick couplers and able to have fitted permanent connections.
- Able to run in cold weather, and cold weather start-ups.
- Oil free for less maintenance

10.31 Spare Tire Storage

- Three tire storage poles situated in the bed on the flat deck area
- Vertical pole diameter approximately 2-3/8" x 26" height
- Two (2) locations on the Drivers side location on the flat deck (L1)
- One (1) location on Passenger side location on the flat deck (R1)

Exact mounting location to be determined at pre-production meeting



Grab Handles

10.32 Safety Grab Access Handle

- 2.0" diameter grab safety handle for access to rear flat deck platform
- Located for ergonomic access to rear flat deck platform
- Qty one (1)
- Approximately, 2.0" diameter tubing x 3' feet tall.
- Slip resistant
- Bolt-on construction
- Primed and painted safety yellow

Design, mounting location and installation to be determined at a pre-production meeting



10.33 Planks - Black Polyboard
Mandatory

- 2" x 6" Composite planks
 - Sides and tailboard of flat deck
 - Black in color on all sides
 - Bolted in gussets
- Wood material substitute not accepted

Flat Deck Fueling Truck Service Body Tailgate, Rear Compartment, Main Deck and Under Compartment

Main Deck Assembly

10.34	Finish	All steel/galvanized components of the Main Flat Deck assembly including the Under-Deck Compartments shall be primed and finished with rust preventative coating/ membrane	_____
10.35	Deck	<ul style="list-style-type: none">• Minimum 3/16" in. all steel galvanized checker plate	_____
10.36	Pullout Deck Working Surface Area	<ul style="list-style-type: none">• Approximately 28" inches, centered in the rear and located under flat deck.• Hinged cover which folds down to gain access to pull out work surface• Length of pull out deck 4' feet• 3/4" plywood top, interchangeable.	_____



10.37 Under Deck Pull out
Compartment Tailgate

- 3/16 in. aluminum construction
- Fold-down type with heavy duty hinges
- Chrome or stainless-steel paddle style door handle and latch
- Lubrication access points on hinge mechanism
- 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
- Rain lip or drip molding to prevent water from entering into the storage compartment
- Rain lip shall protrude to prevent water penetration, but shall not interfere with functionality



10.38 Fire Extinguisher

- 10 lbs. ABC fire extinguisher mounted on the flat deck behind front vertical compartment on Passenger side (R1)



Rear Bumper and Hitch

10.39 Rear Bumper

- Heavy duty step type bumper
- Tubular steel construction
- Galvanized
- Tapered at outer ends
- 12 in. steel grip strut surface
- Approximately 16 in. step height from ground

10.40 Auxiliary Step
(Passenger Side (R1))

- Aluminum grip strut
- Located on Passenger side an integrated into rear bumper



Exact mounting location and size to be determined at pre-production meeting

10.41 Dock Bumpers

- Rear mounted
- One (1) on each side of unit on the rear bumper
- Vertically mounted to a heavy-duty rear bumper frame to the rear of unit

Exact mounting location to be determined at pre-production meeting



Dock Bumpers

10.42 Rear Hitch

Hitch integrated into the rear bumper design, tow capacity 6000 lbs.

10.43 Eye Bolt or welded shackle
(Required for Trailer Safety Chains)

- One (1) each side of hitch
- Eye bolt or welded shackle on bumper or equivalent style and functionality requirement for tower safety chains



Eye Bolts/ Weld on Shackles

Running Boards

10.44 Construction

Custom made:

- Extending entire length of underside of front and rear doors, each side.
- AGS 6061 aluminum grip strut, 9-1/2" inches x 2.0" inches x 0.08" inches
- Inside kick plate shall consist of 1/8" inches aluminum checker plate
- 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

10.45 Mounting

- Cab steps to be mounted using the existing holes in the frame and body where applicable
- Use 3/8-16 nut inserts to secure the mounting brackets to the body



Running Boards

Rear Fenders

10.46 Rear Fenders

- Heavy Duty rear poly half-moon fenders complete with steel mounting hardware
- or
- Aluminium wheel well covers

Trailer Equipment

10.47 Trailer Connector

SAE J560 certified 7-Way Flat trailer receptacle mounted and installed in rear hitch plate complete with all necessary wiring

Note: The cab and chassis will be supplied (unattached) with Ford OEM Trailer Plug Socket and Electric Trailer Brake Controller

Installation to be determined at pre-production meeting

Standards – Flat Deck Service Body (Where Applicable)

10.48	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>Mounting of the service body and any equipment shall be in accordance with the chassis manufacturer's guidelines for body mounting including, but not limited to, guidelines for tire and suspension clearances.</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>EXAMPLE: Ford & 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"> - Doors shut and seal correctly, if not, adjust striker assembly - Master Lock Rod System, if equipped, functions as advertised, if not, adjust components - After the adjustments are made, perform a water intrusion test 	_____
10.49	Compartment Floor Lining	Both horizontal compartments and front passenger side compartments shall be lined with Dri-Dek material or equivalent material having same material specifications	_____
10.50	Isolators	<ul style="list-style-type: none"> • All interfaces between aluminium and steel are to be separated by an approximately 1/16 in. thick rubber or neoprene sheet • Shall be bolted through with stainless steel bolts and non-conductive bushings 	_____
10.51	Drain Holes	All body compartments to include a 1/2 in. drain hole complete with plug	_____

10.52 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.



10.53 Doors

- Each vertical compartment door is hinged vertically and equipped with a vinyl cover door chain to limit the door's opening range. The door swings open to a 90° angle.

10.54 Door Latches

- Flush mounted with locks for all compartment doors
- It is required that all locks be keyed in the same manner.

10.55 Cabinet Locks

- Service Body cabinets to be keyed to the same key for all cabinets.

10.56 Compartment Door Handles

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

10.57 Door Hinges and Latches

Chromed or stainless steel with adjustable striker plates

10.58 Compartment Door Openings

Sealed using automotive type bulb gasket door seal

10.59 Front Vertical storage compartment Light (LED) System

- Front vertical storage compartment to be illuminated with integrated high performance and long-life LED lighting.
- Actuated when the doors are opened



10.60 Wheel Well Area

- Shall incorporate a Fibreglass or rubber fender flare
- Wheel Well panels are removable

- 10.61 Mud Flaps
 - No name, fabric reinforced, black rubber mud flaps installed fore and aft of rear tires
 - ½ in. diameter steel bar anti-sail brackets
- 10.62 Wheel Well Area
 - Shall incorporate a fibreglass or rubber fender flare
 - Wheel Well panels are removable

Rear Bumper and Receiver – Truck Chassis/Flat Deck Fueling Truck Service Body

Back-Up Alarm

- 10.63 Back-Up Alarm
 - SWS model 99202 or Whelen, Grote equivalent model having same specifications and functionality



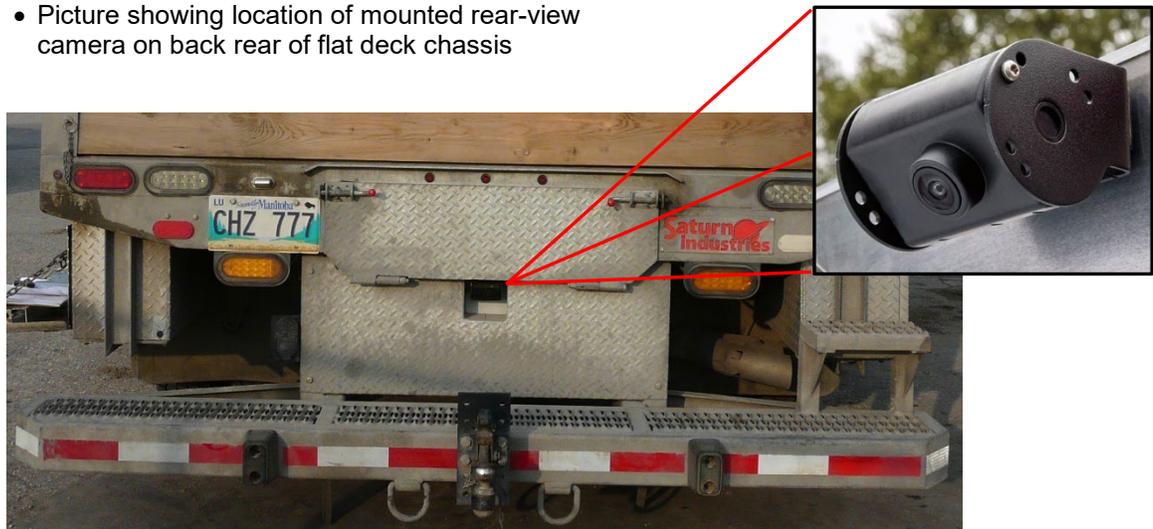
- Mounted between frame rails at rear of vehicle
- Protected from damage and road spray/damage

Rear View Camera

- 10.64 Rear View Camera
 - The cab and chassis will be supplied (unattached) with a rear-view camera
 - Rear-view camera prep kit to include camera, screen (or displayed in rear view mirror) mounting hardware and OEM wiring harness
 - To be installed by body supplier
 - 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



- Picture showing location of mounted rear-view camera on back rear of flat deck chassis



Conspicuity Tape

10.65

Conspicuity Tape

Truck-Lite 98127 or equal, affixed or equivalent model having same specifications

Inverter

10.66

Inverter

- CSA approved
- 110 Volt, 3000 Watts minimum
 - Make: Xantrex
 - Model: XPower 3000 Inverter or equivalent rated unit model having same specifications or functionality
 - Part Number: 813-3000-UL

State:

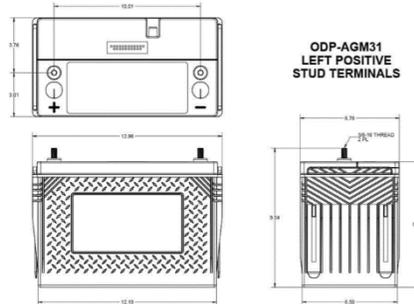
Make: _____

Model: _____

10.67

Deep Cycle Battery

- Group 31, approximately 900 CCA or equivalent Model AGM Battery/Deep Cycle
- Mounted in the same location as inverter in a reinforced compartment
- Battery - Operating temperature range- 40°F / -40°C to 140°F / +60°C
- Battery Cold Start Performance S.A.E J537



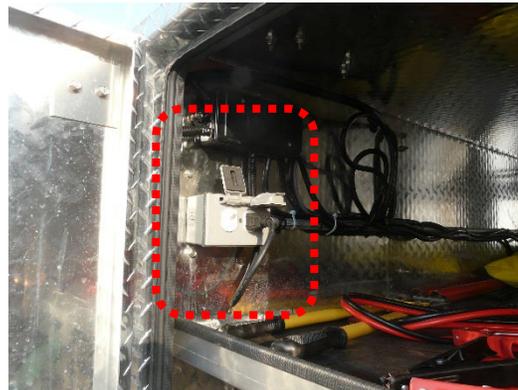
Inverter and deep cycle AGM battery to be install/mounted in front top vertical storage compartment

10.68	Installation	All exposed inverter terminals shall be: <ul style="list-style-type: none">• Coated with a dielectric grease• Completely covered with or rubber fittings• The battery lid cover supplied to provide protection for the terminals, ensuring their shielding.	<hr/>
10.69	Location	Inverter and deep cycle AGM battery to be install/mounted in front top vertical storage compartment. Location to be confirmed at pre-production meeting.	<hr/>
10.70	Wiring	<ul style="list-style-type: none">• Inverter wired through ignition at the dash. Ensure to mounted inverter manufacturer remote switch• Labeled• Inverter to be complete with suitable solenoid and battery isolator• <u>The wiring should have the capability to carry approximately 14 volts of alternator charging voltage from the engine compartment (when engine running) to the deep cycle battery connected to the inverter.</u>	<hr/>
10.71	Installation	No exposed inverter terminals <ul style="list-style-type: none">• Terminals coated with a dielectric grease• Completely covered with adhesive-sealant-lined shrink tubing must be used to guarantee joint integrity, waterproofing and strain relief or rubber fittings	<hr/>

10.72 Receptacle



- Two (2) required
- Duplex receptacle
- Mounted at front of service body, passenger and driver side (Passenger 's Side – R1) (Driver's Side – L1)
- Forward facing
- Mounted as high as practicable so as not to interfere with interior shelf positioning
- Two (2) required
- Duplex receptacle
- Mounted at inside front vertical compartment; Passenger and Driver's side.



- The Duplex receptacle shall be minimum 20 Amp, 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

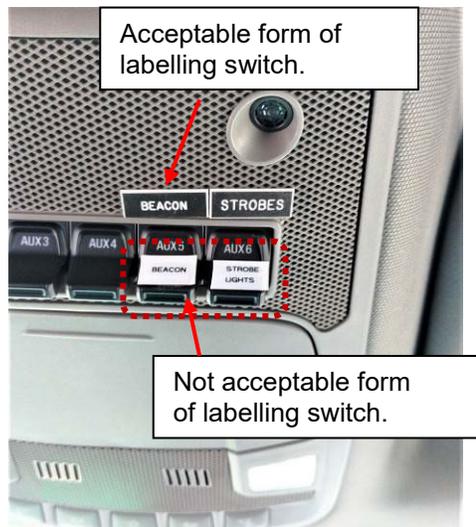
10.73 LED Lighting

10.74 L.E.D. Beacon - Amber

- All safety warning lights shall be Class 2 or equivalent specification
- Whelen, SWS or Grote Series Amber LED Mini Light Bar or equivalent specifications and functionality
- Mounted to on the front vertical compartment (behind front truck 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
- Mounting of labels with 3M VHB Tape or equivalent
- Switch shall be capable of amber mode



State:
Manufacturer: _____
Model: _____

Lighting – Where applicable/requirement in accordance with application.

10.75 Amber Strobe Lights
(Warning)

- Four (4) total
- Whelen 5GA00FAR, or equivalent SWS or Grote Series LED lighting
- Mounting garments flush with service body
- Two (2) located outside of 3-Light cluster, rear facing in rear kick plate
- Two (2) located in the front grille
- 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
- Two (2) strobe lights in front Grille, (location to be confirmed at pre-production meeting and signed off by contract administrator).



- Two (2) amber strobe lights in lower flat deck back location of service body



Locations to be confirmed/finalized at pre-production meeting

10.76 Traffic Advisors

- SWS 67301, Whelen or Grote equivalent in functionality
- 1-piece aluminium with 1-1/2 square frame
- Aluminium front and rear panels
- Approximate size – 44 in. H x 22 in. W x 3-3/8 in. D
- 10 dual optic, LED modules with half sun shade
- Six (6) flash patterns
- 20 ft. of cable per half
- In-cab controller SWS 77501 with 10A auxiliary port
- Traffic Arrows 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 “Traffic Advisors” with a permanent type, engraved style label



10.77 Light Switch Configuration(s)

- Amber strobes (rear ovals) controlled with one switch
- L.E.D. Beacon controlled with one switch capable of amber mode
- Traffic Advisor – separate controller

10.78 Combination Turn/Stop and Taillights

- Top Mounted - One (1) per side
- Bottom Mounted - One (1) per side
- P/N Truck-Lite 44302R with P/N 44710 mounting grommets

10.79 Back-Up Lights

- One (1) per side
- P/N Truck-Lite 44206C with P/N 44710 mounting grommets or equivalent with same functionality

10.80 3-Light Cluster

- Three (3)
- P/N Truck-Lite 10250R with P/N 10403 mounting grommets or equivalent with same functionality
- Located to protect from damage

10.81	Clearance Lights	<ul style="list-style-type: none">• Grote 49333 and 49332 with mounting grommets Or <ul style="list-style-type: none">• Truck-Lite 33050R and 33050Y with 3370 mounting grommets• Whelen or Grote LED clearance lighting with same functionality may be substituted <p>Note: <u>The clearance light on the service body must remain within the boundaries of the body itself.</u></p>	_____
10.82	Harness	Truck-Lite 50 Series or equivalent harness system, properly routed, internally grounded and secured	_____
10.83	Rear Light Mounting Location (Rear Sill)	<ul style="list-style-type: none">• Rear-Corner Clearance Lights, qty two (2), one per side• Combination Turn/Stop and Taillights, qty two (2), one per side• Back-Up Lights, qty two (2), one per side <p>The lights shall be situated so that no debris or door opening contacts/obstructs the lights.</p> <p>Location of Lights to be confirmed at pre-production meeting</p>	_____
10.84	Rear Light Mounting Location (Top-Rear of Body)	<ul style="list-style-type: none">• Combination Turn/Stop and Taillights, qty two (2), one per side• Amber Strobe Lights, qty two (2), one per side• 3-Light Cluster, qty three (3) <p>Location of Lights to be confirmed at pre-production meeting</p>	_____
10.85	Clearance Light Mounting Locations:	<ul style="list-style-type: none">• Front – qty two (2), located one on each bottom corner of body• Sides – qty two (2) per side, located on front and rear bottom corners• Rear – qty two (2), located one on each bottom or top corner <p>Location of Lights to be confirmed at pre-production meeting</p>	_____

Welding Standards

10.86 Welds Continuous welds _____

10.87 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
Or Equivalent American Welding Society (AWS)

10.88 Weld Quality Inspection

- Straight and uniform
- Consistent thickness
- No spatter drops
- No slag, cracking or holes
- No dips or craters in the bead
- No holes, breaks or cracks in the bead/fillet

Not Acceptable – cause for rejection.

- Lack of uniformity and straightness
- Visible spatter
- Cracking, undercutting or breaks in the bead
- Bead width inconsistent

10.89 Weld Spatter All weld spatter must be removed prior to final finish _____

Finish

10.90 Steel Match chassis cab colour:
Ford Oxford White Z1 _____

10.91 Aluminum Components

- Unfinished
- Material Grade corrosion-resistant 5052-H32 marine grade aluminum
- Mill certificates for the material utilized in the construction of the specific tender must be made accessible upon inquiry

10.92 Galvanized

- All galvanized parts which move must be smoothed, cleaning or conditioning after the galvanizing process to ensure function and appearance requirements are met which may include removal of sharp edges, lumps and repaired

10.93 Deck Deck surface properly cleaned and coated with:

- Rust-Oleum AS5400 Anti-Slip Floor Covering or equivalent performance product
- Color Black

10.94	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	_____
10.95	Primer	<p>Required: Epoxy or Polyurethane primer</p> <p>Endura EP321 Intermix Epoxy Primer or DuPont polyurethane or Tristar Coatings Inc. Epoxy Primer</p> <p>Two (2) coats – Dry Film Thickness 3.0 – 4.0 mils</p>	_____
10.96	Paint	<p>Required: Polyurethane Colour: 2023 Ford Oxford White Code Z1</p> <p>Endura EX-2C or DuPont Polyurethane or Tristar Coatings Inc. Polyurethane</p> <p>Two (2) coats: 3 - 5 mils Wet Film Thickness with a total combined overall average Dry Film Thickness of 4 – 6 mils</p>	_____
		<u>Clearance</u>	
10.97	Clearance	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.	_____
10.98	Tire Clearance	Aluminium service body shall provide for an approximate 4” inch clearance with rear springs fully loaded.	_____
		<u>Installation</u>	
10.99	Not-Permitted	<ul style="list-style-type: none"> • Drilling on chassis frame flanges • Welding on the chassis frame 	_____
10.100	Installation Guidelines	<ul style="list-style-type: none"> • A comprehensive installation guide must be provided to the Contract Administrator for validation during the construction phase. These instructions/guidelines pertain to the proper installation/mounting of the body or equipment, following the chassis manufacturer's guidelines for body mounting 	_____
10.101	Holes	<ul style="list-style-type: none"> • When necessary and permitted in accordance with manufacturers specifications and regulations holes in the frame shall be drilled, remade and deburred to fit bolts • <u>Bolt holes shall not have excessive play</u> • Holes required to run wires through shall be drilled and deburred (not punched), grommeted and sealed as required when permitted. 	_____

10.102 Isolators

- All interfaces between aluminum and steel are to be separated by an approximate 1/16" inch thick rubber or neoprene sheet.

10.103 Mounting Brackets

- Shall be bolted through with non-ferrous stainless-steel bolts and non-conductive bushings.
- Shall be bolted to the frame using Grade-8 fasteners

Grade Marking	Specification	Material	Bolt and Screw Size in.	Proof Load psi	Tensile Strength min psi
	SAE-Grade 8	Medium Carbon Alloy Steel, Quenched and Tempered	1/4 thru 1-1/2	120,000	150,000
	ASTM-A 354 Grade BD	Alloy Steel, Quenched and Tempered			

10.104 Bolt Requirements

- All bolts must be high tensile
- Hardened or equivalent strength washers must be installed under both the bolt head and under the nut
- All nuts need to be high tensile and self locking (Nyloc, Conelock or other suitable self-locking variation)
- At least two bolt threads must protrude from all nuts
- Any suspension component bolts must be ISO Class 10.9 or SAE Grade 8
- All bolts that have been installed to replace OEM bolts must be at least an equivalent class/grade.

When mounting tow couplings (towbars, fifth wheels etc.) the bolt shank needs to protrude through the entire interface of the material. This avoids stress concentration on the threaded portion and maximises the available bolt cross-section that is subject to shearing forces.

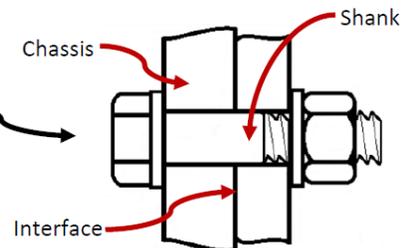


Figure 1

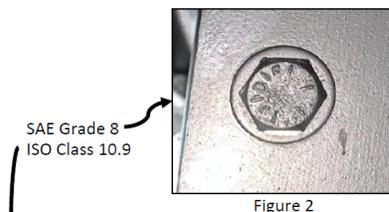


Figure 2

ISO Class 8.8 bolts should not be confused with SAE Grade 8 bolts.

- ISO Class 10.9 bolts are equivalent to SAE Grade 8 bolts (6 radial embossed on the bolt head – Figure 2).
- ISO Class 8.8 bolts are equivalent to SAE Grade 5 bolts (3 radial embossed on the bolt head).



Figure 3

Figure 3 shows an ISO Class 10.9 bolt head and a Nylock nut securing a separate bolt. Notice that both the bolt head and nut are installed with hardened washers and there are more than two threads protruding from the nut.

10.105 Mounting Standards

- Mounting of the body shall be in accordance with the chassis manufacturer's guidelines for body mounting, including but not limited to guidelines for tire and suspension clearance and fuel filler installation.

10.106	Mountings Standards	<ul style="list-style-type: none"> • If applicable the aluminum side packs shall be mounted to the steel deck using cadmium plated carriage bolts and fender washers _____ • Bearing plates shall be used in high stress areas.
10.107	Mounting Standards	<ul style="list-style-type: none"> • Any holes required in the fame if permitted must be drilled, reamed and deburred to fit the bolts. _____
10.108	Mounting Standards	<ul style="list-style-type: none"> • All non-continuous body seams (joints) shall be caulked with an automotive grade elastomeric sealant _____
10.109	Bolted Connections to Chassis Frame	<ul style="list-style-type: none"> • 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. _____ • Not Recommended, 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.



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

- 10.110 Conformance:
- LED Lighting – Class 2
 - C.M.V.S.S.
 - Manitoba Highway Traffic Act.
 - City of Winnipeg Lighting Visibility Standard
<http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>
- 10.111 Lighting:
- Supplier installed
 - LED – Class 2
 - Stop / turn / tail lights
 - Clearance lights
 - Back-up lights
 - 3-Light cluster
- 10.112 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
- 10.113 Licence plates:
- The front license plate holder is securely installed and comes with the necessary mounting screws for the license plate.
 - The back-license plate holder is securely installed and must have an LED light to illuminate it and should be positioned on the left side at the rear of the vehicle, ensuring it is not obstructed.
- 10.114 License Plate Light (Rear Location)
- Complete with license plate bracket
 - P/N Truck-Lite 36140 (Light)
 - P/N Truck-Lite 36710 (Bracket)
- 10.115 Identification:
- All dash mounted warning lights and switches to be identified with permanent, engraved type labels
 - Mounting of labels with 3M VHB Tape or equivalent. To ensure adhesion to interior surfaces 3M Adhesion Promoter 06396 is a convenient liquid primer for enhancing the adhesion of 3M™ Acrylic Foam Tapes in automotive applications. This adhesion promoter works with most LSE plastics used for interior and exterior automotive trim and parts
 - No labels to be located on upper surface of dash



Not Acceptable – Not Permanently Label Picture above shows example of permanent engraved label switches.

- 10.116 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
-

- 10.117 Connection System:
- Weather Pack Sealed Connection System or equivalent system having same industry specifications.
 - Genuine OEM connectors, terminals, and wire seals are used to guarantee quality and 100% fitment.
 - ("J-Box" and shrink tube acceptable)
-



- 10.118 Grommets:
- Rubber grommets should be employed for the purpose of passing or running wiring through apertures in the panels' chassis, unless explicitly specified otherwise.
-



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

- 10.120 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
-

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

- 10.122 Compartment Lights:
- LED continuous "rope" style lighting in all service body compartments, properly secured to prevent damage
-

- 10.123 Wiring:
- All wiring to be colour coded, loomed and properly secured.
 - Genuine OEM connectors, terminals, and wire seals are used to guarantee quality and 100% fitment
 - 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
-

10.124 Electrical Connectors:

- All electrical connectors to be crimped, soldered and then sealed using adhesive-sealant-lined shrink tubing must be used to guarantee joint integrity, waterproofing and strain relief or rubber fittings



- Pictures above showing acceptable crimping and sealant using adhesive-sealant-lined shrink tubing must be used to guarantee joint integrity, waterproofing

10.125 Joining of Wires:

- All joining of wires to be soldered and adhesive-sealant-lined shrink tubing must be used to guarantee joint integrity, waterproofing and strain relief

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

10.126 Wiring Routing:

- Any holes required to run wires through shall be drilled and deburred (not punched), grommeted 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 The warranty for the **Flat Deck Service Body and all accompany components** shall cover the complete equipment, and all parts thereof against any defects of workmanship, construction and materials.

Any equipment that has become defective during said warranty period and has not proven to have been caused by negligence on the part of the user shall be repaired or replaced at no cost to the City.

The warranty shall be effective from the date the equipment is put into service by the City of Winnipeg

11.3 Factory Warranty – Flat Deck Body

State: Terms: _____

11.4 Invertor

State: Terms: _____

11.5 Compressor

State: Terms: _____

11.6 Slip Tanks

State: Terms: _____

11.7 Electrical

State: Terms: _____

11.8 Battery

State: Terms: _____

11.9 Paint

State: Terms: _____

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. _____