FORM N: DETAILED SPECIFICATIONS 22026

DUMP BODIES

1. 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. DESCRIPTION OF EQUIPMENT

- 2.1 These specifications describe **Dump Bodies** and other equipment and features as specified herein.
- 2.2 The **Dump Bodies** shall be a new **2022** model year or newer.
- 2.3 The **Dump Bodies** 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. OTHER SPECIFICATIONS AND STANDARDS

- 3.1 All applicable SAE Standards form an integral part of the vehicle specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 3.2 <u>Where applicable</u>, the **Dump Bodies** shall comply with the applicable regulations:

Transport Canada, National Safety Mark, NSM: <u>http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm</u>

Manitoba Safety and Health Regulation, Parts 12, 16, 22: https://www.gov.mb.ca/labour/safety/pdf/1_2016_wsh_ar_oc.pdf

Canadian Motor Vehicle Safety Standards C.M.V.S.S. Motor Vehicle Safety Regulations (justice.gc.ca)

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: <u>http://www.csagroup.org/</u>

Under Writers of Canada, U/L: <u>Underwriters Laboratories of Canada (ULC)</u> 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 <u>Where applicable</u>, the completed unit shall include a Manitoba Government Inspection with Safety Sticker.
- 3.4 <u>Where applicable</u>, the manufacturer/installer shall affix their National Safety Mark (NSM) certification sticker on each unit.

State NSM number: _____

4. FUEL

4.1 The equipment shall be fully fuelled upon delivery (no exceptions).

5. **REFERENCES**

5.1 Provide five (5) references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.

6. MAKE & MODEL

6.1 State year, make and model being bid:

Model Year:

Make: _____

Model: ___

7. PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the **Dump 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 <u>Dump Bodies</u> 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. 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. QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

- 9.1 The manufacturer of the <u>Dump Bodies</u> shall have five (5) years continuous experience manufacturing <u>Dump Bodies</u>.
- 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 **Dump Bodies** of the type being offered.

10. SPECIFICATIONS

The Dump Body shall be capable of consistent top performance for hauling up to 6000 lbs. of varying payloads year-round in conditions normal to the City of Winnipeg		
Make and Model		
Make	State: make:	
Model	State: model:	
Model Year	State: model year:	
Body Weight		
Body Weight	State: estimated weight of body:	
Weigh Scale Ticket		
Weigh Scale Ticket:		
completed unit. The scale ticket s	shall include front and rear axle weights	
Installation		
The Contractor shall install the bodies on the following City owned		
Streets Maintenance:	Parks	
2022 Ford F-450 Two (2) Required Rear Dump • 16,500 lbs. GVWR • 6.7 L, Diesel engine • 2WD • Crew Cab • 60 in. CA • TorqShift® 6-Spd. Automatic • Horizontal discharge exhaust WFMA Vehicle Unit Number(s): • 2072421 • 2072224	2022 Ford F-550 One (1) Required Rear & Side Dump Heavy Duty Tarp • 19,500 lbs. GVWR • Gasoline Engine • 4WD • Regular Cab • 60 in. CA • TorqShift® 6-Spd. Automatic • Horizontal discharge exhaust • Snow Plow Prep Package WFMA Vehicle Unit Number(s): • 2202293	
	to 6000 lbs. of varying payloads y Winnipeg Make and Model Make Model Model Year Body Weight Body Weight Weigh Scale Ticket Weigh Scale Ticket: The Contractor shall provide a cer completed unit. The scale ticket s including two (2) operators, all atta Installation The Contractor shall install the bo chassis cab vehicles: Streets Maintenance: 2022 Ford F-450 Two (2) Required Rear Dump • 16,500 lbs. GVWR • 6.7 L, Diesel engine • 2WD • Crew Cab • 60 in. CA • TorqShift® 6-Spd. Automatic • Horizontal discharge exhaust WFMA Vehicle Unit Number(s): • 2072421	to 6000 lbs. of varying payloads year-round in conditions normal to the City of Winnipeg Make and Model Make State: make:

	Streets Maintenance:	Streets Maintenance:	
	2022 Ford F-550 One (1) Required Rear Dump	2022 Ford F-450 One (1) Required Rear Dump	
	 19,500 lbs. GVWR 6.7 L, Diesel engine 2WD Crew Cab 60 in. CA TorqShift® 6-Spd. Automatic Horizontal discharge exhaust WFMA Vehicle Unit Number(s): 2272223 	 16,500 lbs. GVWR 6.7 L, Diesel engine 2WD Crew Cab 60 in. CA TorqShift® 6-Spd. Automatic Horizontal discharge exhaust 5th Wheel Towing WFMA Vehicle Unit Number(s): 2072222 	
10.8	Availability	The cab chassis will be available during	
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 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 	
	Material		
10.10	Material	Unless Otherwise Specified: • 10 Gauge Steel • 36,000 psi yield strength	
	Dimensions		
10.11	Length (Outside)	Approximately 9 ft. 6 in	
10.12	Width (Outside)	Approximately 8 ft	

Front

10.13	Construction	 10-gauge steel Formed construction Vertical or horizontal reinforcement rib(s) formed into front of body as required
10.14	Front Height (Measured from Floor)	Approximately 53 in.
		Note: to match chassis cab height State: front height:
10.15	Window	 Plasma / CNC cut window For viewing through rear cab window
		Note: Expanded metal window not allowed
10.16	Cab Shield	 Formed from a single sheet of steel bolt-on design Approximately 12 in. deep Sloped @ approximately 15°
		 Note: The cab shield shall be of sufficient strength to accommodate: directional arrow mini light bar lumber rack brackets
10.17	Cab Shield Sides	 ³/₁₆ in. plate
	Sides	
10.18	Construction	 Double Wall Design Inner panel 10-gauge steel Outer panel 12-gauge steel Fold-down design Clean side style formed sides without vertical reinforcements Formed top rail Formed, self-cleaning bottom rail Welded into a 1-piece design
10.19	Side Height (Measured from Floor)	Approximately 14 in
10.20	Rear Corner Pillars	 Approximately 4" x 8" Formed One per side
10.21	Sides	Sides shall be able to fold-down for ease of access to payload from the side of the body

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10.22	Grease Zerks	Fold-down sides shall incorporate greasable hinges	
10.23	Rubber Blocks	 Two (2) per side (one front, one Approximately 6"L x 3"H x 3"D Prevent metal-to-metal contact sides are in the "down" position 	when
10.24	Levers	 Dual levers per side - front and Locking pins 	rear
10.25	Tarp Tie-Down Bar	 One per side Material = ½ in. Round bar 	
		Tarp Tie-Down Bar	
		Design and installation to be determined at pre-production m	neeting
10.26	Plank Gussets	 Designed for 2" x 6" planks ½ in. diameter bolt holes 	
10.27	Planks	 2" x 6" planks Painted black on all sides Bolted in gussets	
	Tailgate		
10.28	Operation	 Two-way tailgate Ability to open from the top and Shall not protrude above floor ir horizontal or full down position Minimal gap between tailgate an floor and sides when tailgate is closed or horizontal position 	n nd the

10.29	Construction	 Formed construction Double walled design Inner panel 10-gauge steel Outer panel 12-gauge steel Formed top rail Formed, self-cleaning bottom rail Welded into a 1-piece design Service panels for maintenance of the Upper Lever Pin Mechanisms 	
10.30	Tailgate Height (Measured from Floor)	Approximately 20 in. State: tailgate height:	
10.31	Reinforcement	With heavy duty approximately ¾ in. end plates	
10.32	Release Mechanism - Upper	 Lever operated to release upper pins to allow the tailgate to fold-down Service panel for maintenance 	
10.33	Release Mechanism - Lower	 Release handle located at the front, driver's side of the body Mechanism grease zerk lubricated 	
10.34	Top Tailgate Anchor Pins	 Approximately 1 in. diameter Self-locking/storing to top of side post Greasable	
10.35	Support and Spreader Chains	 5/16 in. transport grade 70 Adequately fastened c/w chain storage Two (2) removable links per chain Equipped with protective covers 	
	Floor		
10.36	Material	³ / ₁₆ in. or 7-gauge steel State : material thickness:	
10.37	Construction	One-piece construction	
		Note: Two-piece floors accepted and shall be continuously welded	
10.38	Long Sills	 Formed long sills – approximately 6 in. height Continuously welded to the floor 	
10.39	Corrosion Prevention	Formed long sills to be coated internally with a corrosion preventative compound to deter rust and corrosion	

	Tie Down Eyes		
10.40	Tie Downs Eyes	 Required: Four (4) Located on inside of dump body located on the corner pillars Two (2) near rear of body Two (2) near front of body 	
		Exact locations to be determined at a pre-production meeting	
	Lumber Rack Brackets		
10.41	Construction	 Quantity two (2) Approximately 16"W x 12"H Bracket constructed of 2" x 2" x ¼" steel angle iron and 1½" steel square tubing Bungee Cord rings - qty two (2) per post "U"-style design - welded Bolted to the cab shield 	
		Note: Exact design and measurements to be discussed prior to installation	
	Running Boards		
10.42	Construction	 Custom made: Extending entire length of underside of front and rear doors, each side. AGS 6061 aluminium grip strut, 9-½" x 2" x .08" Inside kick plate shall consist of 1/8" aluminium checker plate Support brackets shall consist of 1½" x 1½" x 1½" x 1/8" RC aluminium square tubing with ¼" aluminium support plates 	
10.43	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 	



Rear Fenders

10.44 Rear Fenders

• Heavy Duty rear poly half-moon fenders complete with steel mounting hardware



Rear Hitch Plate

10.45 Rear Hitch Plate

- 1/2 in. thick solid steel
- Installed to chassis frame

Note: laminated plates not acceptable

Design (including overhang) and installation to be determined at preproduction meeting. 10.46 Hitch

- Combination hitch with 2-5/16 ball
- Installed on hitch plate at a 24 in. height
- Add extra holes in rear hitch plate to allow for multiple mounting positions
- Wallace Forge Company DPH2516
- Wallace Forge Company 2325211 2" ball supplied loose
- Or
- Buyers Products BH82516
- Buyers Products RB2000 2" ball supplied loose





Design and installation to be determined at pre-production meeting

- 10.47 Eye Bolt (Required for Trailer Safety Chains)
- One (1) each side of hitch
- Buyers Products B56730 or equal



10.48 5th Wheel Towing

- One (1) vehicle only
- Retractable King Pin
- Two (2) inch
- Safety switch to prevent operation of the dump box when trailer is connected
- All necessary frame mounting bracket kits and bolster plate to be included

Note: Current unit in service has a SAF-Holland 32K retractable 2in King Pin installed



Trailer Equipment

10.49 Trailer Connector

SAE J560 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 preproduction meeting

DEF and Fuel Filler Modifications

10.50 Modifications

DEF Filler (Where applicable):

 Include bracket system to allow easier access to fill

Fuel Filler:

- Fuel filler housing
- Venting
- Additional brace to support filler pipe

Design and installation to be determined at pre-production meeting



DEF Filler Modification

Ladders

10.51 Access Ladders



Fuel Filler Modification

Required: Two (2)

- Bolt-on installation
- Fold-Down (Retractable) Design
- Non-slip treads
- First rung to be 18-22 in. from ground level
- 400 lbs. capacity
- one (1) located curb-side front corner
- one (1) located driver's side front corner
- Include additional bracing

Note: The ladders fold away when not in use and do not block access to truck boxes, reservoirs or other equipment

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







10.52 Outside Steps

One (1) per side

- 13-gauge steel, 21/4 in. width
- 4-hole design
- And
- Galvanized Flip Down Step

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







10.53 Pull-Out Handle

Pull-Out Handle on bottom step for ease of pulling retractable ladder out



10.54 Grab Handles

- Located for ergonomic access to top of box
- Diameter 1-1/4 in. (32 mm) 1-1/2 in. (38 mm)
- Spacing behind grab bars approximately 3 in. (76 mm)
- Slip resistant
- Bolt-on construction
- Primed and painted safety yellow
- Refer to below pictures for sample design

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



Safety

Dump

Body Prop

10.55

Double Prop Design

- Steel tubing construction, to support dump body in raised position and permit servicing of hoist
- Operable by a single person
- Designed so as not to interfere with hoist cylinder or surroundings
- Operating Handle to be positioned outside of chassis frame rails for operator safety (Driver's Side)
- Dump body prop to be complete with receiving bracket.
- Safety Lock Pin and Chain required to hold arms in the "Up" position (Driver Side)
- Refer to below pictures for sample design

Design and installation to be confirmed at a pre-production meeting.



Driver Side - Down



Driver Side – Up

All components (prop, handle and receiving bracket) shall be painted with <u>Safety</u> <u>Orange</u> for ease of identification

- 10.56 Dump Body Prop Colours
- 10.57 Dump Body Stowage Warning System

Required:

- Warning system shall be actuated when dump body is not in the fully stowed position.
- Red light and/or buzzer in-cab

Buyers Product B95 or Grote 44421





Back-Up Alarm 10.58 Back-Up Alarm • SWS model 99901 · Mounted between frame rails at rear of vehicle Protected from damage and road spray **Conspicuity Tape** 10.59 **Conspicuity Tape** Truck-Lite 98127 or equal, affixed **Grease Fittings** 10.60 Grease Fittings **Required:** On tailgate release mechanisms, pivot points and drop-down side linkages Hoist, Subframe and Controls 10.61 Hoist Double acting Hydraulic scissor lift hoist • Electric pump activated State: Make: _____ Model: 10.62 Approximately Ten (10) to Fifteen (15) ton Capacity State: capacity: **Dumping Angle** Approximately 45 degrees 10.63 State: dumping angle: _____ 10.64 Sub-frame Mounted to dump box **Power Pack** 10.65 • Hydraulic power pack • Frame-mounted aluminum enclosure with removable lid

 Compartment door openings shall be sealed using automotive, bulb type rubber gaskets

10.66	Controls	 In-cab Up/down controls Hand held with remote pendant Storage bracket installed
		Storage bracket location to be confirmed at a pre-production meeting.
	Lighting	
10.67	Mini Light Bar – Amber	 Whelen R2LPPA Series Amber LED Mini Light Bar Mounted to centre top of cab Protected by Branch Guard – heavy duty construction 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" with a permanent type, engraved style label. Switch shall be capable of amber mode.
10.68	Directional Arrow (Traffic Advisor)	 SWS 57748-2 48 in. x 22 in. Cab shield mounted Rear facing Controller mounted in-cab

10.69 Light Switch Configuration(s)

On Vehicles equipped with Amber:

- Amber strobes (rear ovals) controlled with one switch
- Mini Light Bar controlled with one switch capable of amber mode
- Traffic Advisor separate controller

On Vehicles equipped with Amber/Blue:

- Amber and Blue strobes (rear ovals) controlled with one 3-way switch – Amber-Off-Amber/Blue
- Mini Light Bar controlled with one 3-way switch Amber-Off-Amber/Blue
- Traffic Advisor separate controller

10.70	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 	
10.71	Back-Up Lights	 One (1) per side P/N Truck-Lite 44206C with P/N 44710 mounting grommets 	
10.72	3-Light Cluster	 Three (3) P/N Truck-Lite10250R with P/N 10403 mounting grommets Located to protect from damage 	
10.73	Clearance Lights	 Grote 49333 and 49332 with mounting grommets Or 	
		Truck-Lite 33050R and 33050Y with 3370 mounting grommets	
		Note: shall not protrude beyond the dump body	
10.74	Harness	Truck-Lite 50 Series or equivalent harness system, properly routed, internally grounded and secured	
10.75	Amber Strobe Lights (Warning)	One (1) per sideWhelen 5GA00FARMounting grommets	
10.76	License Plate Light	 Complete with license plate bracket P/N Truck-Lite 36140 (Light) P/N Truck-Lite 36710 (Bracket) 	
10.77	Rear Light Mounting Location (Re	ear Sill)	
	 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 		
	The lights shall be situated so tha	t no debris contacts the lights while dumping	
	Location of Lights to be confin	med at pre-production meeting	
10.78	Rear Light Mounting Location (To	p-Rear of Body)	
	 Combination Turn/Stop and Tai Amber Strobe Lights, qty two (2 3-Light Cluster, qty three (3) 		

Location of Lights to be confirmed at pre-production meeting

- 10.79 Clearance Light Mounting Locations:
 - 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

Location of Lights to be confirmed at pre-production meeting

Options

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

- 10.80 Option 1: Rear and Side Dump
 - The body shall be able to dump in two directions, to the rear and to the passenger side
 - Actuated by a single lever to change dumping direction
 - Lever to be ergonomically located for easy access from the driver
 - Multi-Directional Dumping Hoist mounted in a sub-frame

State:

Hoist Capacity to rear:	
Dump Angle rear:	
Hoist Capacity to side:	
Dump Angle side:	

State:

Make:	
Model:	

State: Design changes required to have rear and side dump option



\$

10.81 State Optional Pricing for:

Will not be evaluated, for information purposes only

- 10.82 Amber/Blue Mini Light Bar Package
 - Whelen RDLPPAB Amber/Blue LED Mini Light Bar
 - Blue Strobe Lights Whelen 5GA00FBR
 - Amber Strobe Lights Whelen 5GA00FAR
 - 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

- 10.83 Heavy Duty Tarp
 - Heavy Duty Tarp System suitable for a dump body with fold down sides

- Mesh tarp
- Lower crank handle
- Foldable crank handle for storage
- Lockable
- Steel sealed bearings
- All stainless-steel hardware

State: Make:

wake.	
Model:	
would.	

		Standards ere Applicable)
	Finish	
10.84	Preparation	All steel components unless otherwise
10.85	Primer	Epoxy or Polyurethane
10.86	Paint	Epoxy or Polyurethane
	Welding	
10.87	Welds	Continuous welds
10.88	Standard	CSA Standard W47.1-30 and W59-03

\$ _____

10.89	Weld Spatter	Weld spatter to be removed prior to finish	
	Clearance		
10.90	Clearance	Clearance between dump body and back of truck cab shall be a minimum 3 in. in accordance with the Cab & Chassis Incomplete Vehicle Manual	
10.91	Tire Clearance	Body shall provide for approximately 4 in. clearance with rear springs fully loaded	
	Installation		
10.92	Not-Permitted	Drilling on chassis frame flangesWelding on the chassis frame	
10.93	Holes	Holes in the frame shall be drilled and	
		 reamed to fit bolts Holes required to run wires through shall be drilled (not punched), grommeted and sealed as required 	
10.94	Isolators	 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 	
13.0	Mounting Brackets	Shall be bolted to frame using Grade-8 fasteners.	
13.1	Mounting Standards	Any holes required in frame must be drilled and reamed to fit bolts	
13.2	Mounting Standards	All non-continuous body seams (joints) shall be caulked with an automotive grade elastomeric sealant	
	Lighting and Electrical		
10.95	Conformance: • LED Lighting • C.M.V.S.S. • Manitoba Highway Traffic Act. • City of Winnipeg Lighting Visibili http://winnipeg.ca/matmgt/pdfs/Pu	ity Standard <u>blicWorksEquipLightingVisibility.pdf</u>	
10.96	Lighting: • Supplier installed • High count LED		
10.97	Visibility:Taillights, back-up lights and wa lowered to horizontal positionNo clearance light shall protrude	rning lights to be fully visible when tailgate is e beyond dump body	

10.98	Identification:	
	 All warning lights and switches to be identified with permanent, engraved type labels 	
10.99	 LED Strobe Lights: 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 	
10.100	Connection System:	
10.101	Grommets:	
10.102	Harnesses:Harness system, properly routed and secured.All harnesses shall be internally grounded, no exceptionsColour coded or numbered	
10.103	 Junction Box: Complete with necessary compression fittings, required for all vehicle lighting harness connections Securely located Readily accessible for servicing Waterproof Protected from road spray 	
10.104	All Plug-In Connectors:All plug-in connectors shall be coated with Truck-Lite NYK Corrosion Preventive Compound prior to assembly	
10.105	Wiring:All wiring to be colour coded, loomed and properly secured.	
10.106	Electrical Connectors:All electrical connectors to be crimped, soldered and then sealed using heat shrink tubing	
10.107	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	
10.108	Wiring Routing:Any holes required to run wires through shall be drilled (not punched), grommeted and sealed	

11.0 WARRANTY:

11.1	All warranty information shall be detailed and include all exclusions.		
	The Contractor shall provide a of the equipment.	Il published warranty information upon delivery	
	Bidder shall state all warranty		
11.2	The warranty for the Dump Bodies shall cover the complete equipment, and all parts thereof against any defects of workmanship, construction and materials.		
	Any equipment that has becon has not proven to have been c shall be repaired or replaced a		
	The warranty shall be effective by the City of Winnipeg	e from the date the equipment is put into service	
11.3	Factory Warranty - Body	State: Terms:	
11.4	Hoist	State: Terms:	
11.5	Paint	State: Terms:	
12.0	DELIVERY:		
12.1	Delivery Point:		
	The complete unit shall be ser with the freight prepaid, includ WFMA 185 Tecumseh Street,		
12.2	Delivery Time:		
	Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days.		
	State: earliest delivery time from		
12.3	Delivery Contact:	Delivery Contact:	
	The Contractor shall contact the equipment.	ne Contract Administrator prior to delivery of the	
12.4	<u>P.D.I:</u>		
		be performed by the Contractor on the ction including completed check list	

13.0 **MANUALS**:

13.1	The following manuals shall be supplied with the units when delivered:		
	 Operator's Manual – Two (2) per unit. One (1) Operator Manual shall be sent to the Equipment Operator Training Branch 		
	 Parts and Service Manuals – One (1) complete set including preventative maintenance schedules. CDs or USB Drives are preferred. 		
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 <u>If applicable</u>, 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.