

## REQUEST FOR QUOTATION

**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WING**

**(Including Installation on current municipal fleet Freightliner cab and chassis)**

**Quote No.**

**2026-012**

**Bid Closing: February 5, 2026**

**Joie de vivre**



[www.westnipissinguest.ca](http://www.westnipissinguest.ca)



**MUNICIPALITY OF WEST NIPISSING**

**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WING**

**SECTION 1.0**

**INSTRUCTION TO BIDDERS**

**INVITATION TO QUOTE**

The Municipality of West Nipissing is seeking to purchase one (1) new SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WING to be installed on current municipal fleet Freightliner cab and chassis.

**Owner:** Municipality of West Nipissing  
101-225, Holditch Street  
Sturgeon Falls, On P2B 1T1  
Phone: 705-753-2250  
Fax: 705-753-3950

**BID SUBMISSION**

- 1.0)** Bid documents must be returned in a sealed envelope clearly marked "SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WING" complete with bidder's Company name and Quotation reference number to Shawn Remillard, Municipality of West Nipissing, 101-225 Holditch Street, Sturgeon Falls, Ontario P2B 1T1, before 1100 hrs. (local time) on February 5<sup>th</sup>, 2026 (the "Official Closing Time").
- 1.1)** Bids will be deemed to have been received when a Municipality representative has stamped the envelope with the time and date of receipt with the time clock located at the Services counter. The time clock located at the services counter is the official time piece. Bids not received at the Services counter will not be considered.
- 1.2)** Bids submitted by facsimile or electronically will not be considered.
- 1.3)** All pages contained in the bid documents form an integral part of this bid.
- 1.4)** Section 3.0 must be completed and submitted in the format provided.
- 1.5)** The lowest or any bid will not necessarily be accepted. The owner may decide, at its sole discretion, that no bid submitted will be accepted and no contract will be awarded pursuant to this bid process. If the owner elects to reject all bids, all bidders will be notified and the owner will not be liable to any bidder in preparing the bid, damages, loss of anticipated profit in connection with the work, or any matter whatsoever.
- 1.6)** Bidders are required to check the Municipality of West Nipissing website for addenda issued before the closing date and time. If the contract administrator determines that an amendment is required to the bid documents, the contract administrator will prepare an addenda and post it to the Municipality of West Nipissing website.
- 1.7)** Partial or incomplete bids will not be considered.
- 1.8)** In case of a corporation that has a corporate seal, the corporate seal shall be affixed to the bid form.

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WING**

**SECTION 1.0**

**INSTRUCTION TO BIDDERS**

**QUESTIONS AND CLARIFICATIONS**

**2.0)** Enquiries, request for explanation, interpretations or clarifications must be submitted by email to [sremillard@westnipissing.ca](mailto:sremillard@westnipissing.ca). Only those inquiries submitted by email will be considered. Emails submitted must include the quotation title and quotation reference number.

**2.1)** Enquiries will be received up to 1100 hrs. local time on January 29<sup>th</sup>, 2026. Enquiries received after the date and time noted will not receive a response.

**BID OPENING**

**3.0)** Bids will be opened privately.

**3.1)** Bid received after the official closing time is considered LATE, and will not be accepted and will be returned unopened to the bidder.

**ADJUSTMENT OR WITHDRAWAL OF BIDS**

**4.0)** Adjustment by telephone, facsimile or letter for a bid already received will not be considered. A bidder desiring to make adjustment to a bid must withdraw the submission and/or supersede it with another offer.

**4.1)** Bidders may withdraw its bid at any time prior to closing provided the withdrawal:

- i) is in the form of a letter and,
- ii) state the name of the bidder and clearly identifies the bid that is being withdrawn and;
- iii) is signed by the bidder's duly authorized signing officer;

**BID DOCUMENT DISCREPANCIES AND OMISSION**

**5.0)** Bidders are responsible to review the bid documents and to verify they are complete. If the bidder finds discrepancies or omissions from the drawings, specifications and other documents, the bidder should submit a written request for correction to the contract administrator. Any required correction, addition, deletion or revision to the bid documents will be by written addenda to the bid documents issued by the contract administrator by posting to the Municipality of West Nipissing website.

**REQUEST OF APPROVED EQUALS AND ALTERNATIVES**

**6.0)** Request for equals to the material, equipment or methods of fabrications specified, should be submitted in writing to the contract administrator. These requests should contain pertinent data such as specifications, construction and operational characteristics, cost savings etc. in order to assist the contract administrator in his decision. Approvals for equals will be in the form of addenda. The contract administrator is not obligated to review and approve equals prior to the bid closing time.

**GENERAL INFORMATION FOR BIDDERS**

**7.0)** The specification describes spreader assembly, snow plow and wing. The units will be used for hauling sand and gravel in the summer and snow plowing, salting, and sanding in the winter.

**7.1)** Municipality's quote form and specification form must be used.

**7.2)** Dealer must have a service facility within approximately 100 kilometers of municipal yard.

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WING**  
**QUOTE FORM**

**SECTION 2.0**

**QUOTE FORM:**

- 1.1)** I/we recognize the right of the owner to reject any and all bids for any reason without explanation and that the lowest bid may not be necessarily be accepted.
- 1.2)** I/we understand that my/our bid will be subject to rejection unless it is prepared in strict accordance with all the requirements of the bid documents.
- 1.3)** All pricing shall be in Canadian funds, all applicable taxes included with the exception of HST which will be considered as extra to the cost
- 1.4)** I/we hereby acknowledge receipt of the following addenda \_\_\_\_ to \_\_\_\_ forming part of the bid documents (**If none have been received, write the word none**)
- 1.5)** Bids shall be irrevocable and shall remain open for acceptance by the owner for a period of 60 calendar days from closing.
- 1.6)** If a discrepancy is found in the bid form between the unit price and the total amount, the unit prices shall be considered as representing the intention of the bid.

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WING**  
**QUOTE FORM**

**SECTION 2.0**

**FORM OF QUOTE**

**Item A** – Spreader Assembly (Including Installation on current municipal fleet Freightliner cab and chassis)

Make \_\_\_\_\_

Model \_\_\_\_\_ \$ \_\_\_\_\_

**Item B** – Reversible Plow with Wing (Including Installation on current municipal fleet Freightliner cab and chassis)

Make \_\_\_\_\_

Model \_\_\_\_\_ \$ \_\_\_\_\_

**Total Item A + B** \$ \_\_\_\_\_

**Additional Fees/Tax**

\_\_\_\_\_ \$ \_\_\_\_\_  
\_\_\_\_\_ \$ \_\_\_\_\_  
\_\_\_\_\_ \$ \_\_\_\_\_

**HST** \$ \_\_\_\_\_

**Total Price for Delivery to Municipality of West Nipissing** \$ \_\_\_\_\_

**Delivery Date** \_\_\_\_\_

Should you be the successful bidder on this RFQ, the Municipality of West Nipissing will deduct \$100 from the invoiced price for every calendar day this delivery is late for any reason based on the above delivery date.



**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WING**  
**QUOTE FORM**

**SECTION 2.0**

**Signatures:**

Vendor full business name:

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Vendor full business mailing address:

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Phone No: \_\_\_\_\_ Fax No: \_\_\_\_\_

Email: \_\_\_\_\_

Signature: \_\_\_\_\_

*I have the authority to bind this company/corporation*

NAME: \_\_\_\_\_ (Please Print)

TITLE: \_\_\_\_\_ (Please Print)

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 2026

CORPORATE SEAL:

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

**PART A: spreader assembly/reversible plow with wing**

**(Including Installation on current municipal fleet Freightliner cab and chassis)**

	<b>YES</b>	<b>NO</b>
<b>Spinner Assembly</b>		
A truck frame mounted spinner will be installed at the left front side of body		
It shall include an 18" diameter molded polyurethane spinner disc		
The spinner arrangement shall include a kemlite discharge chute, a drive shaft with hydraulic motor and mounting bracket		
The top mounted hydraulic motor shall be supplied with quick disconnect hydraulic couplings		
The spinner assembly can be easily removed or tilted in a horizontal position without the use of tools		
<b>Viking model VCL36-12-45C steel full trip reversible snow plow or approved equivalent:</b>		
The overall width shall be 12'		
The moldboard height shall be 36" maximum		
The path cleared in the bulldozing position shall be 12'.		
At a 35 degree angle, the path cleared shall be 10'		
A manually adjustable type moldboard tilt brace to be provided		
Set at a 50 deg. attack angle, the overhang from the cutting edge to the front of the moldboard shall be 20" minimum –no exceptions		
Set at a 60 deg. attack angle, the overhang from the cutting edge to the front of the moldboard shall be 25" minimum –no exceptions		
Set as a 50 deg. attack angle, the height from the ground to the front of the moldboard shall be 28" maximum –no exceptions		
Set at a 60 deg. attack angle, the height from the ground to the front of the moldboard shall be 24" maximum –no exceptions		
The moldboard shall be fabricated from 10 ga. steel		
There shall be a minimum of 10 X 3/8" thick reinforced ribs 100% welded to the moldboard		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
The safety trip mechanism shall consist of two compression coil springs incorporated into the drive frame. Upon encountering a road obstruction, the moldboard will raise vertically through the 2 compression springs. Note that reversible plows whereby the moldboard tilts forward through extension springs, will not be accepted by the Municipality		
The two compression trip springs will be 5/8" wire, 5 1/4" O.D., 14" free length with a total of 8 active coils		
"Mushroom style" skid shoes shall be fitted on the drive frame		
These shoes shall carry the weight of the plow when the moldboard trips		
The bottom of the moldboard is to be reinforced with a 1/2" X 6" X 4" backer angle		
A second angle 3/8" X 3" X 2" shall be welded above for added strength and rigidity		
The drive frame shall be of A frame and sector design		
The A frame will be constructed of 3 1/2" X 3 1/2" X 1/4" square tubing with two 3/4" thick pivot plates		
Sector frame constructed of 4" X 4" X 3/8" square tube		
The sector angle shall provide a 30° radius and be constructed of 1/2" X 3 1/2" X 2 1/2" steel		
To prevent wear, the sector will glide between two low friction replaceable polymer bearings bolted on the A frame		
There shall be two 3" X 14" double acting hydraulic cylinders to reverse the plow to a maximum of 35 right or left		
Moldboard shall be fitted with 2 shoes and scuff shoes shall be supplied on each end		
A 5/8" X 8" X 12' steel cutting edge shall be supplied and bolted to the moldboard		
Three 3/8" lift chains shall be provided to lift the plow to the carrying position		
These chains must be as wide spread as possible in order to make the plow stable, and the plow must remain level when carried		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
It will be possible to perform the power angle function with the plow in both the lowered working position and the raised carrying position		
Four hinge points are to be provided to connect the moldboard to the push-frame, spanning a minimum distance of 80"		
To prevent damage to the reversing cylinders a cross-over relief valve shall be supplied		
Drive frame shall be complete with an adjustable parking stand		
All steel shall be epoxy primed prior to application of finish paint		
All paint finishes shall be top quality, rust resistant black		
Quick tack oscillating beam shall be supplied		
Carbide cutting edge and carbide nose shoe shall be provided		
Moldboard to be fitted with 2 moldboard shoes and 2 curb shoes		
Fluorescent markers to be fitted on each end of the plow moldboard		
3/8" X 12' rubber deflector shall be provided		
Plow shall be equipped with a safety cable connecting the plow to the front harness – cable to be provided with a urethane cover wrap		
A spare parts manual shall be supplied		
A signed manufacturer's warranty shall be supplied		
<b>Viking model VCL500HD hydraulically detachable front plow harness or approved equivalent</b>		
Male Coupler: The male hinged swing arm and its enclosed rigid mounting bracket shall form an integral assembly and is to be fitted to the side plate (cheekplate). The assembly remains permanently with the vehicle even after the female coupler has been detached		
Side (Cheek) Plates: The side plates must be 5/8" thick and attached to the chassis side rails		
Cheek plates will be specified to suit chassis frame rails, and will extend back along the chassis frame rails as far as possible		



**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

## SECTION 3.0

# SPECIFICATIONS

	YES	NO
Cheek plates frame cut from 44W steel plate: Specify Minimum Yield: _____		
Minimum Tensile: _____		
Fasteners attaching cheek plates to the chassis frame rails will be minimum grade 8 N.C. hex head bolts		
Swing Arm: the male swing arm to be rotated on the shaft, and the hub ends are to be guided by four anti-friction polymer discs in the mounting bracket		
Piston diameter 2 1/2 "		
Piston rod diameter 1-1/18"		
Stroke 6"		
The rod is to be hard chrome plated and buffed. These cylinders shall permit the front harness to tilt forward by disengaging the top and engaging the bottom hydraulically operated lock pins. The truck hood (cab) can be tilted forward for easy access to the engine without detaching the front harness from the truck		
Hydraulic locking shall be achieved by two double acting, double ended hydraulic cylinders		
One cylinder shall provide upper locking and the other cylinder shall perform the lower locking function		
The lock cylinder control valve shall be a double acting two spool mono block valve, installed directly on the front harness		
The mono block valve shall be protected by a Poly Nema 13 waterproof enclosure – no exception		
For safety, the lock cylinder control valve shall be mounted in a position to allow the operator visibility of the hydraulic lock pins while performing the lock or unlock function		
Two pairs of drive ears 100% welded to the front plate spaced at standard 30 1/2" centers		
Three sets of plow drive bar connection holes located in drive ears height to lower drive connection 19" mounted with truck empty		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
Quick-tack hitch pockets bolted to drive ears		
Hydraulic plow lift cylinder, double acting 4" diameter with 10" stroke, cylinder rod chrome plated		
Plow lift yoke 3/4" steel plate, braced with two 1/4" X 2" flat bar diagonal braces		
Two mounting locations in lift yoke to provide location for mounting of plow hydraulic lift cylinder in winter operating position and stored summer position		
Mounting plates for plow lift cylinder, lift yoke and lift yoke braces all 1/2" steel plate 100% welded to front plate		
Two sealed beam Heated LED plow lights with high and low beam built in integral directional with switch in cab		
An additional full width bumper bracket, complete with parking legs, shall be provided. The bumper shall include mounting brackets to enable the male couple of the detachable front harness to mount the bumper to the front of the truck after the female section of the front harness (and front wing post) is removed		
<b>Viking model VCL350SCL Cable Type Wing Harness or approved equivalent</b>		
Cable Type VCL350SCL front wing post or equivalent		
48" front post shall be Viking Model VSL350SCL		
The post shall be an 8" I-beam @18.4 lbs/ft rated		
The harness assembly shall be of heavy construction to sustain snow plowing operations under severe conditions		
The design and construction of the wing post shall be in compliance with MTO ES403, or be of equivalent design. Brace "A" in a second sturdy cross member shall replace ES403. This cross member shall be bolted to both cheek plates. Alternate braces must be approved.		
The wing post, when mounted, shall not be higher than the wing tower		
The sheave pin shall be provided with a grease fitting and an iolite bushing		
A safety stop, limited slide travel shall be supplied		
Lifting cable shall not be mounted to the hinge pin		
An 8" grab link shall be provided with a tip over arrangement. A spring shall be included to return the wing to normal position after it has tripped		
Bottom of the wing post shall be approx.. 11" from the ground, truck empty, and shall be protected by a shoe		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
A 3" X 30" stroke D.A. cylinder shall be mounted on the inside of the front post and shall operate the front wing slide through 2 (6"dia) sheaves and a cable		
Front slide shall be provided with a tip over arrangement. A spring shall be included to return the blade to normal position after it has tripped		
The main supporting member for the front post shall be 4" OD x 2 3/4 " ID x 5/8" wall tube cross member running through both cheek plates, reinforced with a 1/2" steel plate between the cheek plate and the front post		
The auxiliary support shall be a 6" x 13 lb./ft. channel running across the top of both cheek plates		
Aeon 5000 lb. rubber block helper spring kit shall be installed to the RH front chassis springs		
12" Grote #1202 convex mirror on back side of front post on an extended 10" angle iron bracket to aid drive in winging mode		
Two 6" Heated Grote LED front post post lights on 18" extended adjustable bracket, separate in cab switches		
Viking tube style crossmember approximately 10" back of cab to assist in preventing diamond shaping of frame when winging		
<b>Cable Type VCL350SCL Rear Wing Post</b>		
The rear structure shall attach directly to the right side of the chassis close behind the cab		
The supporting structure shall extend across both chassis side rails and along the right side to provide a distribution of the wing load under heavy duty operation		
Bottom of the wing tower shall have a ground clearance of 14" minimum, truck empty		
The spacing of the holes in the slides for connecting the wing braces shall be approximately 17"		
Approved size of the ram controlling the rear end of the wing shall be 3" dia. X 30" stroke approx. cylinder, with a cable and sheave assembly		
Approved size of ram controlling wing brace slide shall be 3" dia x 36" stroke approx.. and shall be double acting		
Wing tower shall be painted black		
The wing tower shall be of a heavy construction and bolted to the right side of the truck chassis		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
An integral BOC oil reservoir of 130 litre (35 US gallon) capacity		
An oil filter with spin-on element shall be installed in the return line ahead of the reservoir with a shut-off valve between the filter and reservoir.		
Wing tower shall be of 10" channel construction with a 25 degree offset and its mountings shall be sufficient to sustain snow plowing operations under severe conditions		
One pipe brace 2" diameter shall connect the bottom of the wing tower and the truck chassis near the forward mount of the right rear springs to reduce the shock of the truck frame		
The rear wing tower shall be heavily braced and gusseted to the frame cheek plate		
For maximum strength, two channels shall be used to form support integral with the rear post		
Two triangular stiffeners shall be incorporated into the assembly		
Hydraulic hoses shall connect the rams of the tower with the valves in the control box. Hoses shall be two ply braided steel, SAE100R16 with swivels on both ends		
All sheave pins shall be provided with oil impregnated bronze bearings and grease fittings		
A safety chain shall be provided for securing wing when not in use		
Guide bars to contain the rear wing slide shall be welded 100% from the bottom up 2 feet		
35 US gallon integral rear wing assembly oil reservoir, installed on top of the frame rails back of cab, shall be supplied complete with oil filter, oil level sight/temperature gauge, breather type filler cap, drain plug and ball valve shut-offs		
6" Heated Grote LED rear wing light with in cab switch		
Manufacturer's literature shall be included		
Manufacturer's warranty		
Specify		
Parts manual shall be supplied with each unit		
Harness shall be prepped and painted medium gloss black		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
<b>Viking Model VCL156WHD Steel Side Wing Moldboard with Horizontal Type Hydraulic Wing Travel Positioner or approved equivalent:</b>		
Viking Model VCL156WHD-HP		
Specify		
Make _____		
Model _____		
Overall length 13 feet		
Inside intake height 29"		
Outside discharge height 39"		
Moldboard thickness 10 gauge minimum		
Two drive ribs for connecting the wing brace shall be provided		
Two drive ribs shall be located approximately 10' 2" and 10' 8" from the nose end of the wing		
The plate for mounting the wing to the wing post shall be 1" thick. The mounting hole shall be far enough from the edge of the plate to avoid failure in this area		
Lower wing angle shall be 6" x 4" x 3/4"		
The mounting of the nose end of the wing to the wing post shall be by means of a hinge and rectangle spring, to allow tipping over of the wing		
Two adjustable wing braces shall be supplied		
The upper brace shall be of a shock release type, including a spring retraction. The spring shall provide adequate stability of the wing in normal operating conditions and shall retract the wing from tip-over position		
The lower brace shall incorporate a 5/8" x 6" compression spring to absorb any shock the wing encounters		
Upper brace – extended to 90" C.C		
Upper brace - Collapsed 58" C.C		
Extended distances shall be measured with spring fully retracted		
Lower brace – extended 88" C.C.		
Lower brace - collapsed 58" C.C		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
One spare pin for adjusting the wing braces shall be supplied with each brace		
The top edge of the wing shall be boxed in and welded 100% to the ribs and the moldboard so as to avoid any pockets		
The back side of the moldboard shall include a horizontal type hydraulic wing travel positioner assembly, complete with in cab control		
The wing positioner assembly shall consist of upper and lower horizontal tubing. The upper and lower wing braces attach to these tubes, and slide forward horizontally through a double acting hydraulic cylinder		
The cylinder shall be installed between the upper and lower sliding tubes. When the wing is in the raised position, extending the cylinder/wing braces along the tubes towards the front of the wing will allow the moldboard to rest tight to the chassis cab, below the mirrors		
The result will be full visibility through the passenger window when the wing is in the travel position. Vertical type wing positioners will not be acceptable		
Adjustable needle valve in hydraulics back of cab to allow operator to be able to slow/speed mode functions of wing		
A high wear type wing blade combined with 2 moldboard shoes shall be supplied		
A curb shoe shall be provided, installed on discharge end of wing moldboard		
36" Orange fluorescent wing marker attached to rear of wing		
Conspicuity reflective on wing arm and on rear edge of wing		
All steel will be shot-blasted, epoxy zinc primed and finished in Medium Glass black finish		
<b>Hydraulic System</b>		
A front mount crank shaft load-sense piston pump shall be provided Bosch-Rexroth model A10V100 rated at 100 cc minimum. No alternatives		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
11 section Bosch M4 load-sense valve assembly shall be provided to operate the following functions: <ul style="list-style-type: none"> <li>i. 1 double acting for plow lift</li> <li>ii. 1 double acting for plow reverse</li> <li>iii. 1 double acting for upper locking pin on front harness</li> <li>iv. 1 double acting for lower locking pin on front harness</li> <li>v. 1 double acting for hydraulic tilt harness</li> <li>vi. 1 double acting for front of wing</li> <li>vii. 1 double acting for rear of wing</li> <li>viii. 1 double acting for rear wing slide</li> <li>ix. 1 double acting for horizontal wing travel positioner</li> <li>x. 1 single acting for front lift telescopic hoist</li> <li>xi. 1 double acting for side tilt cylinders</li> </ul>		
The complete M4 valve assembly will be installed well above the chassis frame rails on the left side back of cab in an easily accessible location, protected from the road debris. The junction boxes for the lights must also be installed at this location		
The valves shall be attached to a steel mounting bracket bolted on the left side of the back of cab oil reservoir		
The valve assembly shall be protected by an easily removable steel enclosure		
Two separate electrical switches shall be installed directly on the left side of the front plow harness – one to control the upper hydraulic locking pin and the other to control the lower locking pin – this permits the operator to safely determine which locking pins have been retracted		
Electric switches to be installed inside a protective steel enclosure		
A Bosch model CS-106 multiple joystick control console shall be installed inside the cab in an easily accessible location. No alternatives		
The control console shall include 8 proportional joystick paddles, to control the plow, wing, and hoist functions		
In addition to the Bosch Model CS-106 control console shall include 4 rocker type ON/OFF switches to control the following <ul style="list-style-type: none"> <li>• Air tarp</li> <li>• Air tail gate</li> <li>• Air plunger for pintle hook</li> <li>• Spare for future water tank</li> </ul>		
12 volt air solenoid valves shall be installed within the circuit of each of the 4 rocker switch controls in order to activate the aforementioned air functions through the electric switches		
The function sequence of the switches shall be determined by the municipality prior to installation		

**MUNICIPALITY OF WEST NIPISSING**  
**SPREADER ASSEMBLY WITH REVERSIBLE PLOW/HARNESS AND WINGS**

**SECTION 3.0**  
**SPECIFICATIONS**

	<b>YES</b>	<b>NO</b>
A 35 gallon capacity oil reservoir of adequate capacity shall be supplied, complete with oil filter, oil level sight gauge, breather type filler cap, drain plug, and oil shut off valve		
The oil reservoir shall be installed on top of the chassis frame rails back of cab		
The low hydraulic oil level in cab light and alarm shall be provided		
Pump mounting plate and splined drive shaft shall be supplied		
The pump shall have a manufacturer's R.P.M. rating equivalent or higher than that of the truck engine at governed speed		
Hydraulic hoses to connect pump shall be supplied. Their size shall be adequate for quick operation of all hydraulic operations and shall be <u>2-ply braided steel SAE100RS</u> , with swivels on both ends		
<b>Hydraulic Filter (mandatory requirements)</b>		
Hydraulic Filter shall be equipped with a high pressure filter		
Installed directly into the reservoir with condition indicator		
Beta ratio of 200 for 10 micron particles		
Less than 5 PSI pressure drop across the element at 60 GPM flow		
The filter head must be bolted to a 0.5" thick mounting plate, which must be welded inside and outside the reservoir		
When the canister is removed, the opening must have at least 5" diameter		
The filter inlet should be NPT, minimum 1.25" diameter.		
Make		
Model		
<b>SPECIFICATION</b>		
The hydraulic system must be set up so all other hydraulic functions do not "rob" the sander equipment		
A parts manual shall be supplied with each unit		



## MUNICIPALITY OF WEST NIPISSING SPREADER ASSEMBLY WITH REVERSIB

## SECTION 3.0

# SPECIFICATIONS

	YES	NO
An oil reservoir of adequate capacity shall be supplied complete with oil filter oil level sight gauge, breather type filler cap, drain plug and oil shut off valve. Oil reservoir must be installed on top of chassis frame rails back of cab		
Oil reservoir to include a low hydraulic oil in-cab indicator light and alarm		
The complete valve stack assembly will be installed well above the chassis frame rails on the left side back of cab in an easily accessible location, protected from the road debris. The junction boxes for the lights must also be installed at this location		
The control panel assembly shall be of a remote design pedestal mounted and adjustable		

Any additional comments or clarifications (attach additional sheets if required)