

DEKALB COUNTY HIGHWAY DEPARTMENT

SNOW PLOW, FRAME, HYDRAULIC SYSTEM, DUMP BODY,  
WING, SPREADER AND PRE-WET TANK SYSTEM

Sealed proposal for the furnishing and installing of snow plow, frame, hydraulic system, dump body, wing, spreader, and pre-wet tank system on 2015 Peterbilt model 348 as specified will be received by the Highway Committee of the DeKalb County Board until 10:00AM, Thursday, March 5, 2015 at the office of the DeKalb County Engineer, 1826 Barber Greene Road, DeKalb, Illinois and at that time publicly opened and read.

The County reserves the right to reject any and all bids and to waive any technicalities.

The bids shall not include taxes for which we are exempt.

Bid price furnishing & installing Snow plow, frame, hydraulic system, dump body, wing, spreader and pre-wet tank system as specified	sub total _____
Total for 1 truck	_____

Proposal submitted by:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

SPECIFICATIONS FOR SNOW PLOW, FRAME, HYDRAULIC SYSTEM, DUMP BODY,  
WING, SPREADER AND PRE-WET TANK SYSTEM

**PUSH FRAME AND PLOW LIFT:** Shall be Bonnell model HFF/SP quick Hitch with Bonnell-QAC coupler and Even Lift by telescoping lift arm. Side plate hitch type. The lifting device and push frame shall be constructed that a suitable power reversible type snowplow may be used. The push frame side plates shall not be less than **5/8"** thick and shall extend back as far as practical from the front end of the truck frame so as to reinforce the frame. Hitch shall be provided with a double acting hydraulic cylinder with nitrated rod of sufficient capacity to raise the plow specified. Hitch shall be compatible with plow Bonnell model **12TA3762MXIQA**. Plow hitch shall be tilt type, **if necessary**, for access to engine compartment or fixed type, and shall have hydraulic cushion block for reversing cylinders installed. Unit shall have **Hella model #C120 HB2** type auxiliary headlights with directional signals. Auxiliary lights shall be hood mounted with Stainless Steel brackets, with spacing on 60" centers (+/- 5"). Height shall be 75" from ground to bottom of light. Auxiliary lights shall be controlled by switch on control box. High and low beam on both original and auxiliary unit will be controlled by original dimmer switch. Truck is supplied with stationary grill. **Install "Load Share Air Bag" (P/N 6926) on right front suspension. 2 Heavy Duty Tow Hooks mounted on side plates of plow hitch.**

**POWER REVERSIBLE SNOW PLOW:**

Shall be Bonnell model **12TA3762MXIQA** reversing table and □A frame, Painted Yellow (L6806EB) to match cab and chassis color.

Cutting Edge Holes	Standard AASHTO Punch for <b>(2) 6 ft. cutting edges</b>
Cutting Edge Length	12 feet
Cutting Edge Materials	<b>1" x 8" Hi Carbon Steel</b>
Cutting Edge Bolts	5/8" GR 8 Counter sunk
Cutting swath at 35 degrees	9'9"
Cutting swath at 28 degrees	10'7"
Reversing Cylinder	Two - 4" Dia., 2" <u>nitrated rods</u> , 12" stroke
Moldboard Material	10 gauge
Moldboard Bottom Angle	4" x 7" x 3/4"
<b>Carbide Frog Protector</b>	2 (outsides)
Moldboard Ribs	Seven – 1/2" x 3" with the left one doubled (looking at the plow from the back)
<b>Level Raise Lift System</b>	Chains
Springs	8
Flap	Minimum height 16", Anti-Sail
Snow Plow Jack	Swivel Jack, Top wind, 2,000 lbs. Lift Capacity Center/ground 10" Retracted. 10" Travel, Weld-On Tubular Mount (Bulldog part# TWS158DTSF)
A-Frame	Shall have gussets behind stops <b>QA Loop Welded on the lower side of plate</b>

**WING:** Shall be The Monroe Para-Glide Double Function Patrol Wing direct hydraulic model Monroe **DFPW-9-TE** or comparable. Mounted on the right front of truck, Painted Yellow (L6806EB) to match cab chassis color. All hydraulic cylinders shall have nitrated rods.

Wing lock valves for heel and toe cylinders.

Overall length: 9'8"

Overall height, front: 29"

Overall height, rear: 39"

Moldboard thickness: 3/16" hi-tensile steel

Cutting edge: **Carbide and Shoe**

Rear mount for push bar top frame cross beam with lower pipe brace support.

Push bars: 1 - adjustable spring cushioned

1 - hydraulic extension and hydraulic cushion block

Clearing width: 60"-90"

Front lift height: 14"

Rear lift height: 96"

Weight: 1700#

**REPLACEMENT TAILGATE SPREADER:** Shall be Monroe RTS-35 Replacement Tailgate Spreader

3/16" STAINLESS BODY with 1/4" endplates

3" X 3" X 1/4" Outside tube type frame

Full width auger located below the dump body floor

Full bottom opening below floor level

Auger to have One Way 3/8" X 9" flighting with a 4" pitch Left (drivers) Side Discharge

Agitator bar shall have (6) 4" X 4" X 1/4" INTERRUPTERS ANGULARLY WELDED TO CURB SIDE

Both auger and agitator are to be direct driven by low speed high torque hydraulic motors

18" poly spinner with all stainless steel brackets attached to truck dump body

**TRUCK MOUNTED HYDRAULIC PRE-WETTING SYSTEM:** Shall be Monroe Model LDS455.

Behind the cab 120 gallon stainless steel frame and mounts. 2 in. male bulk fill kit. Flush kit. Spinner disconnect kit.

**HYDRAULIC - PUMP SYSTEM:** The pump shall be mounted and shall be continuous and of sufficient capacity to allow the operation of the plow hoist, dump body hoist, spreader, auger and plow simultaneously without any functional loss of power to any of the other components.

(A) Hydraulic Pump - Load sensing, 24 GPM @ 1000 RPM min 5.5 cubic inch. Driveline to be Spicer 1350 series with guard. Pump to be of side port design to avoid multiple sharp bends in plumbing. Install shut off valve on pressure side of pump.

(B) Hydraulic Valve - of design to operate hydraulic equipment simultaneously without functional loss to any other components. To be mounted outside of frame in **Stainless** valve enclosure left hand side and controlled by lever and cable assemblies mounted in cab. (**NOTE:**) DeKalb County Highway Department is to be notified during this stage to approve location for driver's convenience of operation. Lever control sequence as follows from driver's seat to the right.

1st lever - Double-acting spool for hoist, spring return to be 1" ports 750 psi down pressure relief  
With a Wescon single control (dual push button) lever

2nd lever – Double-acting spool for snow plow lift, spring return to be 3/4" ports  
Double-acting spool for plow pivot left and right, spring return to be 3/4" ports

3rd lever - Double-acting spool for wing heel, spring return to be 3/4" ports  
Double-acting spool for wing toe, spring return to be 3/4" ports

4th lever - Double-acting spool for wing push arm cylinder, spring return to be 3/4" ports

(C) Spreader Control Valve - Dual-knob pressure adjustable mounted for easy driver adjustment during spreading operations. 12 volt DC dump valve mounted in line to control on/off function of spreader during operation. Controlled by second electric push button switch mounted on wescon hoist lever. Spinner hose hookups to be inside left rear frame rail and Auger hose hookups to be **recessed mounted** in upper right rear corner post of dump body.

(D) One 10 micron return line filter with spin-on element with 1-1/4" NPT ports mounted as close as possible to the reservoir with a by-pass and condition indicator gauge. Shut off valve to be installed between filter and hydraulic reservoir.

(E) **Stainless** hydraulic reservoir with low oil level sensor (with warning light, warning buzzer mounted in control box) and shut off valve on the suction side of reservoir to be installed.

(F) Suction hose to be 2" I.D. minimum

(G) Pressure hose from pump to valve body to be 1" 2-wire.

(H) Dump body hose to be 1" 2-wire from valve body to "T" for cylinder. 3/4" from "T" to cylinder kept short as possible, 3/4" return lines.

(I) Snow plow lift hose to be 1/2" 2-wire

(J) Shuttle hoses to be 3/8" 2-wire

(K) Pump drain hose to be 1/2" 2-wire

(L) All hoses to have swivels on at least 1 end

**HYDRAULIC LINES:** All hydraulic lines connecting spreader, power reversible plow and wing to truck shall be equipped with quick couplers. These couplers to be reversed, male-female to prevent incorrect hook-up. The hose, fitting and couplers shall be of sufficient size and strength to withstand the maximum output capacity and pressure of the pump(s).

**PINTLE HITCH: Holland PH-775-01552 swivel type pintle hook.** 50 ton pintle hitch mounted not to interfere with hydraulic lines. Remount factory tow hooks to rear upper frame. **Must have Air lines and Glad hands.**

**CAB:** Control box shall have 7 switches (strobe lights, plow lights, spreader light, wing light, scene lights, air tail gate, prewet), 3 warning lights (body up, low pressure prewet and low oil) and 1 warning buzzer (low oil).

14 gage jacketed 2 wire shall be run from control box to left rear corner of dump body for spreader light and from control box a 15 ft. loop of wire **in cab** for wing light.

All electrical (relays, circuit breakers, solenoids and wire connections) for control box mounted in cab.

**CHIPPER BAR:** (See Attached Drawing)

**STAINLESS DUMP BODY:** Shall be a western style under body, for mounting on chassis having a 115" CT. Lights, reflectors and mud flaps to meet minimum DOT and State of Illinois standards.

12' 6" x 7' 8-10 yard capacity

34" sides

44" tailgate, angle iron across top and loop, air operated

Extend tail gate lever rod past body for manual release

50" sloped front to accommodate Crysteel Marathon hoist

Double-ribbed head sheet for added strength

Full depth rear corner posts, boxed stainless steel construction

Full depth rear apron

Tailgate, double-acting, w/full length 3/8" proof coil chains, tubes welded solid in tailgate for  
(4) 3/8" shield bolts

All seams shall be continuous welds throughout including cab shield

7 ga. Stainless Steel construction throughout

1/4" AR400 Floor

9" radius sides to floor

Boxed top rail

**Plastic side boards 9 in. tall with 2 center supports per side** half the height of sideboards.

2 Body safety strut

Half cab shield.

Grab handles on drivers side cab shield horizontal and vertical of minimum 1" pipe.

Lights shall be recessed (all oval) strobe, stop-tail-turn and back up on upper rear corners, mounted in conjunction with Supplied Bar Light on pintle hitch plate. **(NOTE :)** DeKalb County Highway Dept. to be notified prior to installation for spacing between strobe lights, stop-tail-turn and back up lights recessed on rear corners.

Rubber splash guards at rear on box (for shipping only)

Minimizer 4000 poly fenders (4) (P/N 4-PM4001) with plastic mounting kit (P/N B4578BTPA)  
(fenders shipped loose not mounted)

Junction box to rear of frame

All rear lights and wiring will be continuous from light to junction box, i.e., no splices

Ladder, one step below box 14" wide min.

2 Steps on inside of box at front corners, 14" long

1 Stainless Steel Shovel Holder (**Buyers SH675SS**) ship loose

Full length shields on tailgate. Shields must stay inside box (at top) when tailgate is open.

Vibrator for box. Mounted at the front of box in center under floor. Controlled by first electric push button switch mounted on Wescon hoist lever.

Aluminum Crysteel toolbox mounted to fit under sloped front

Undercoating

**HOIST: Shall be a Crysteel Marathon Telescopic Hoist M53117**

Inverted hoist  
3 stages  
117" stroke  
Double acting  
Floating cradle  
Trunnion mounted  
NTEA Performance Class 80  
49° Dump Angle

**Lighting:**

Whelen State of Illinois 96" light bar on cab with **rear oval strobes** in box. **With scene lights options.**  
Light bar and all strobes to be L.E.D. (P/N 01-0682261-00-9800)

For questions on bidding specifications to match existing DCHD fleet, please contact us @ 815-756-9513 for scheduling an appointment for viewing.

All installation to be to the satisfaction of DeKalb County Engineer

Delivery Date: \_\_\_\_\_

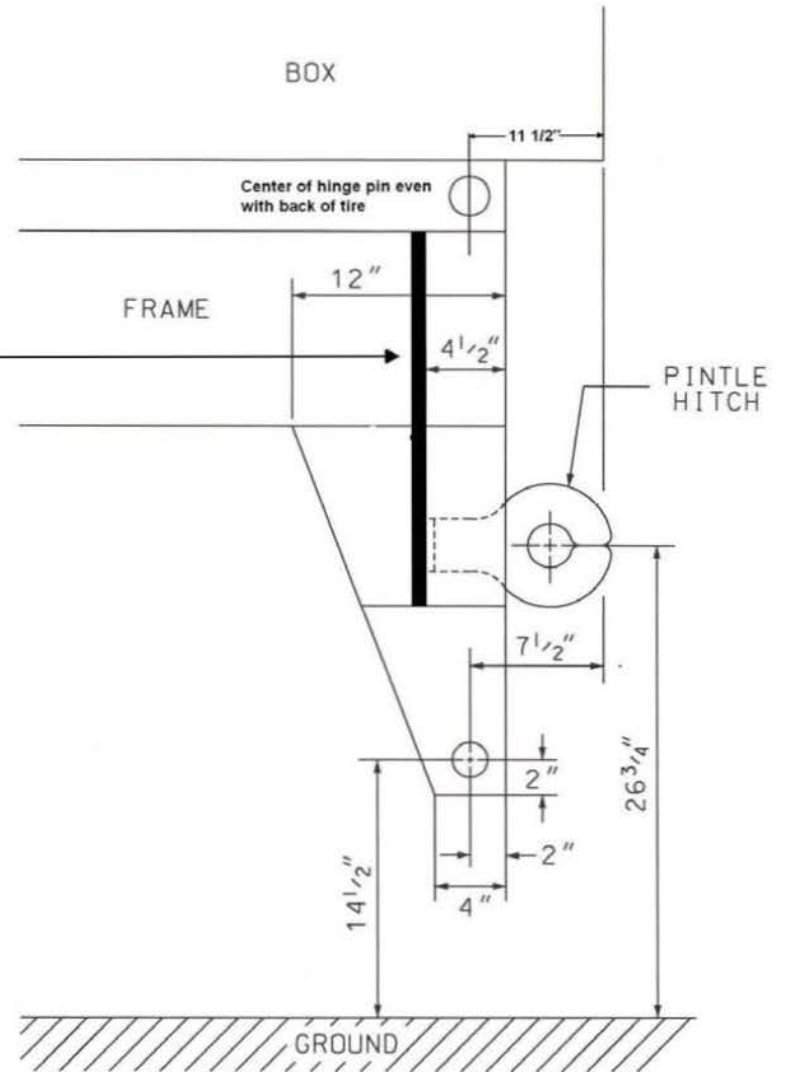
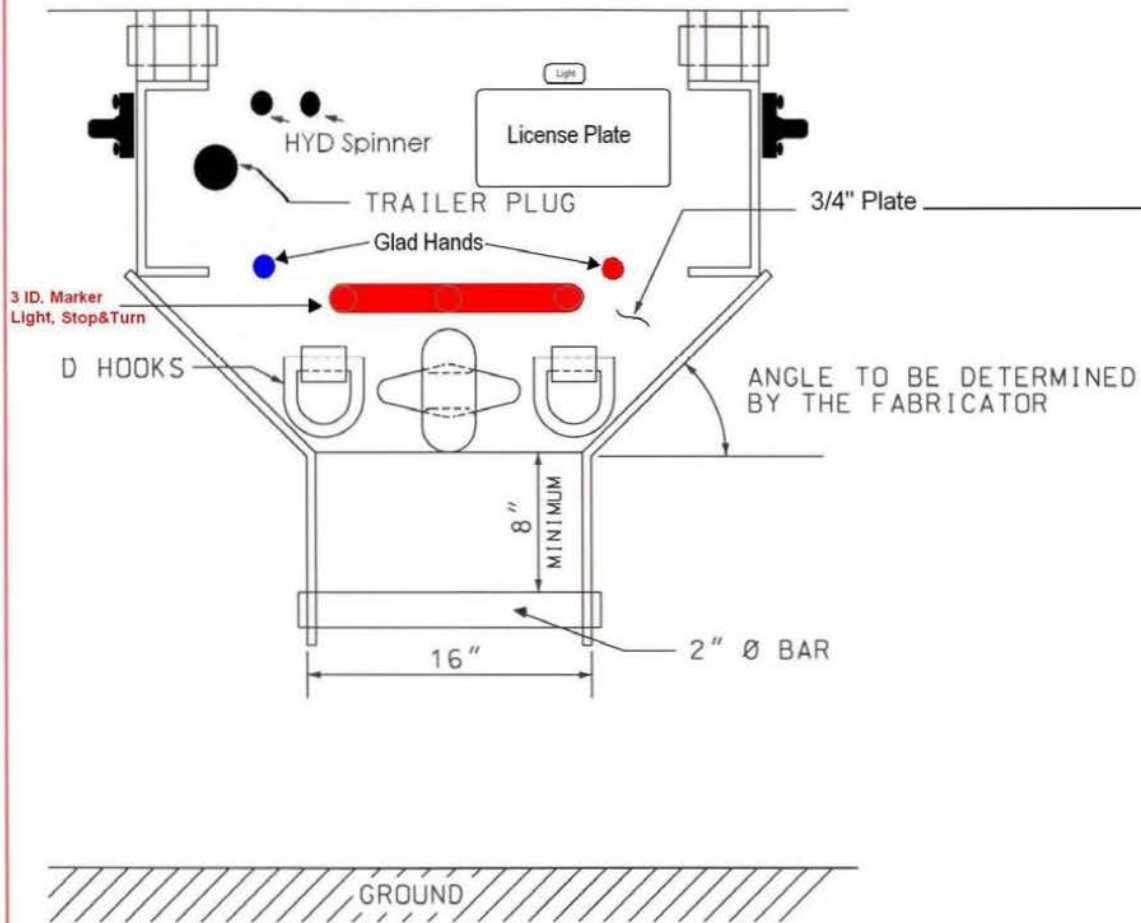
INSPECTION – Materials or equipment purchased are subject to inspection and approval at the County's destination. The County reserves the right to reject and refuse acceptance of items which are not in accordance with the instructions, specifications, drawings or data of Seller's warranty (expressed or implied). Rejected materials or equipment shall be removed by, or at the expense of the Seller promptly after rejection.

**BOX WARRANTY:**

Minimum – 5 year extended warranty on complete basic unit

Note: Warranty to be dealer registered, warranty coverage and proof of warranty registration must be provided at time of vehicle delivery. Warranty to begin upon date of delivery and acceptance by the DeKalb County Highway Department.

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CHIPPER BAR

DEKALB COUNTY HIGHWAY DEPARTMENT

June 27 2013

Drawn By SMS