

**OGLE COUNTY HIGHWAY DEPARTMENT  
1989 South IL Route 2  
Oregon, Illinois 61061**

The County Highway Department is requesting bids in conformance with the requirements established by the specifications herewith:

BIDS MUST BE SUBMITTED ON OR BEFORE FRIDAY, JANUARY 10th, 2020, AT 2:00 P.M.

TO: Ogle County Highway Department  
1989 South IL Route 2  
Oregon, Illinois 61061

ATTENTION: Jeremy A. Ciesiel, Ogle County Engineer

**TIME AND PLACE OF BID OPENING:** The Road & Bridge Committee of the Ogle County Board will receive sealed bids for the equipment described herein at the office of the County Engineer, Oregon, Illinois until 2:00 P.M. on Friday, January 10, 2020. The proposals will be opened and publicly read at that time. The Road & Bridge Committee will act on the bids at their meeting held at 8:00 A.M. on Tuesday, January 14, 2020 in Room 100 of the Ogle County Courthouse, 105 South 5<sup>th</sup> St, Oregon, Illinois.

**INSTRUCTIONS TO BIDDERS:** Specifications and proposal forms may be obtained at the office of the County Engineer and all bids/quotations must be submitted on these forms. The Bid Form must be filled in, executed by the bidder, and submitted in a sealed envelope, which should be CLEARLY MARKED as "Dump Body".

**BIDDER QUALIFICATIONS:** The successful bidder shall have a reputable service garage.

**REJECTION OF BIDS:** Ogle County reserves the right to reject any and all bids and to waive any or all informalities in connection with the bids.

**RETAILER'S OCCUPATION TAX:** Sales of any kind to Ogle County and other governmental bodies are exempt from the Illinois Retailer's Occupation Tax and the Service Use Tax.

**CERTIFICATION OF BIDDER:** The undersigned hereby certifies that he has read, understands, and agrees that acceptance by Ogle County of the bidder's offer, will create a binding contract. Further, he agrees to fully comply with all terms and conditions as set forth by the Ogle County Highway Department, together with the specifications and other documentary forms herewith made a part of this specific procurement.

NAME OF BIDDER \_\_\_\_\_

BY \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_

**TOTAL BID amount for (1) truck buildout: \$ \_\_\_\_\_**

# DUMP BODY, HYDRAULIC SYSTEM, PUSH FRAME, WING & SPREADER

**THE FOLLOWING SPECIFICATIONS ARE ALL MINIMUM UNLESS OTHERWISE STATED IN THIS PROPSAL.**

**IF BID DOES NOT MEET ALL THE SPECIFICATIONS, ANY DEVIATIONS FROM THESE SPECIFICATIONS MUST BE NOTED OR THE BID WILL BE REJECTED.**

## **GENERAL REQUIREMENTS:**

The intent of this specification is to provide requirements for the furnishing and installation of a dump body, hydraulic system, frame, wing, spreader, etc. on a new 2020 International HV507 Tandem Axle Truck as follows:

- 2020 International HV507 SFA 6x4
- 179" Wheelbase
- 104" Cab to Trunnion
- 120,000 PSI single frame rail with 20" front frame extension
- Electric Trailer Brake Wiring
- Additional information available upon request

The County is requesting bids based on the following specifications:

## **TRUCK DUMP BODY:**

### **General:**

The dump body shall be a "Western" or "cross-memberless" style body with top rail, bottom rail and two bottom tubular structures. The dump body shall include a "D" ring or other lifting attachment on the dump body, at the location of the hoist. All body sides, cab protector, floor, and tailgate bracing shall be 100% continuous welded. The dump body shall be fabricated of minimum 7 gauge 201 or 304 stainless steel, with the exception of the floor which shall be a minimum of 7 gauge A570 grade steel with a minimum rating of 50ksi yield strength, and a 65ksi tensile strength.

All vertical and horizontal channels on the body will be welded completely. Longitudinal understructure members shall be of a formed trapezoid shape running the length of the body. They shall be formed from a minimum ¼ inch 105,000ksi tensile steel. Longsills to be welded a 100% to the floor of the dump body.

The only crossmembers shall be as required for front and rear reinforcing and to mount the dump body vibrator.

Dump body shall have fabricated full depth Austenitic 201 or 304 stainless steel rear corner posts constructed of minimum 7 gauge material. The corner posts shall be internally reinforced to withstand any stress imposed during normal usage.

All wiring shall be within posts or longitudinals or when exposed shall be clamped and supported at 8" intervals.

The dump body shall have a nominal (water level) capacity of 9 cu. yd. near to the following dimensions:

- Inside length 13'
- Inside width 84"
- Overall width 96"

- Rub rail width of 4 1/2"
- Front bulkhead height of 50"
- Side height of 34"
- Tailgate height of 42"

**Note:** The bottom inside corner of the dump body shall be of a radius design to allow for maximum corner width.

Inside length:	_____	inches
Inside width:	_____	inches
Overall width:	_____	inches
Rub rail width:	_____	inches
Front bulkhead height:	_____	inches
Water level capacity:	_____	cubic yards
Side Height	_____	inches
Tailgate Height	_____	inches

The top rub rail shall be fully boxed and sloped to the outside and shall not include any provisions for additional sideboards.

The front bulkhead shall be constructed to be seamless inside and outside of the dump body. It shall be adequately reinforced.

The body will be constructed with front corner posts. The corner posts will have open bottoms to allow complete drainage.

The lower rub rail shall be sloped and welded to the body. A 3/8" x 1 1/2" steel flat strap supported every 24" shall run the full length of the rub rail. The top edge of the flat shall be even with the top angle of the rub rail.

A full width rear skirt shall be provided. The inside and outside corners shall be cut out to allow drainage.

All linkage points shall be greaseable and points of adjustment shall be easily accessible.

**Ladder:**

Poly ladder on front, curb side. Two steps below box. Minimum 12" wide.

**Tailgate:**

Type - Offset hinge, double-acting with separate spread control chains including keyhole eyes for 3/8" chain. The chain to be grand 43 and covered with a nylon or plastic cover. The keyhole eyes shall be of sufficient size to accept the entire chain link and prevent the chain from being unattached during normal operations.

Height – Approximately same height as the dump body corner posts.

Reinforcement - Minimum of two vertical and one horizontal brace.

Construction – Fixture welded. Each tailgate shall be interchangeable with same make and model dump body.

The tailgate shall have two (2) sets of bushings continuously welded through the vertical outer tube of the tailgate to allow 3/8" cap screws to pass through. The fasteners will allow the attachment of anti-spill shields.

Tailgate pins shall be tapered and comply with the dump body specifications for round stock. The pins shall be greaseable.

The tailgate shall be air operated and shall include grease fittings. The tailgate linkage cross shaft shall be greaseable and accessible from the outside of the corner post.

**Note:** The operator shall be able to manually operate the cross shaft in the event of an air failure.

The tailgate shall have a "D" ring or welded loop attached in the center for removal of the tailgate.

**Note:** When tailgate is lowered parallel to body floor, the inside surface of the tailgate shall provide a smooth level joint between the tailgate and the body floor.

The hinge assembly at the rear of the body shall include individual stainless steel pins machined from hardened 416 stainless steel. The pins shall pivot thru a one piece pillow block style hinge pad and be removable. The pins shall also be capable of being greased.

The tailgate shall be equipped with a 201 or 304 stainless steel telescopic metering slip gate measuring 18" X 12" located in the center of the tailgate. It shall be lever adjustable with a locking handle nut to secure the opening position.

The slides or guides the slip gate operates in shall be constructed of 201 or 304 stainless steel. The control lever and the locking nut may be mild steel.

The outer guide shall be constructed of a formed stainless steel angle. It shall provide for adjustment of the door within the guides by means of adjustment bolts in the tailgate reinforcing structure.

The inner slide shall be stainless steel and welded to the tailgate reinforcing.

**Rear Wheel Mud Shields:**

Type - Heavy anti-sail rubber.

Location - Attached to underside of dump body in front of the rear wheels supported by brackets.

Purpose - Prevent splashing of frame-mounted attachments, fuel tanks, and cab area and shall be free of any lettering.

**Rear Wheel Splash Guards:**

Type - Flexible rubber hanging type.

Location – Attached to underside of dump body behind rear wheels, supported by brackets.

Ground Clearance - 8" with truck loaded to maximum legal limit. Maximum allowable deviation from vertical plane - 30 degrees.

Color - Black.

Other Requirements: Shall not "roll up" rear tires during dumping operations.

Shall conform to all State regulations.

Shall be free of any lettering.

**Cab Shield:**

Type - 1/2 cab type.

Construction - Not less than 7 gauge 201 or 304 stainless steel.

Installation - Continuously welded to the dump body or integral extension of the front wall and shall be tapered on each outside corner to allow for more visibility of emergency lighting and not interfere with the exhaust stack. There shall be heavy brackets constructed into the corners of the cabshield for the mounting of the required S/T/T lights along with the LED warning lights. The housing containing the lights shall have a removable access cover to allow access to wiring cables and connections.

**Dump Body Vibrator:**

Electric 12 volt type Cougar Model DC-3200, Vibco DC-3500 or equivalent. The vibrator shall be installed per manufacturer's recommendations on western style dump bodies. A 150 amp thermal breaker shall be included in installation.

**Air Tailgate:**

Dump body to be equipped with an air trip mechanism for latching the tailgate. The air cylinder shall be a tie-bolt design, 3.5" diameter with approximately 6" of stroke. The electric over air valve will be located in the cab, in the power distribution panel. The switch will be located in the switch panel and equipped with a guard to prevent accidental activation. A mechanical over-ride shall be provided in case of an air system malfunction.

**Note:** The operator shall be able to manually operate the cross shaft in the event of an air failure.

**Body Hoist:**

The hoist shall be a double acting telescopic design and trunion mounted with oscillation built into the cylinder mount. The hoist shall be capable of operating at 2500 psi and be self-bleeding. The hoist shall be internally sealed by a seal of u-cup design. The cylinder shall be nitride coated for superior wear and corrosion resistance. The hoist cylinder must be a minimum of NTEA Class 50 rated. The hoist shall consist of (3) sections and have the ability to hold the load in a raised position for road operation. The hoist shall raise the body to a minimum 50 degree dump angle.

Dump angle-50° minimum Angle: \_\_\_\_\_ degrees

Number of telescopic sections: \_\_\_\_\_

**Safety Prop(s):**

Type – Dual manufacturer's steel safety props.

Location - Under side of body, attached to body sub-frame or rear truck frame. The props shall support the dump body in a raised position for maintenance.

**Rust/Corrosion/Oxidation Undercoat Requirements:**

The entire underside of the dump body shall be thoroughly coated.

**PAINT:**

Color – Green, similar to the following (unless otherwise noted):

- International - #5047

Manufacturers' standard painting application processes shall be practiced. These may include the use of base coat/clear coat application. Other applications will be considered if discussed and agreed to prior to production. Ogle County will be the only source to approve any other alternative to the products listed above. Any proposed product must be lead free with low VOC levels. Prior to their approval for color match.

Areas Painted: Body shall be painted green to match the cab. Frame and running gear shall be painted or powder coated manufacturer's standard black.

**Rust/Corrosion/Oxidation Proofing** - High Performance solvent based coatings to provide protection against moisture, salt and alkalis.

Method of application - Standard commercial procedures meeting GSA specification A-A-59295, ASTM B-117 Salt spray test and SAE J2334 lab test. (1,000 hrs. min.) **Note:** Exterior coating color shall be black.

Areas of dump body to be coated:

- Underside of dump body (Black)
- Rear corner post of body
- Longsills of dump body

## **SPECIAL TRUCK WIRING & LIGHTING:**

### **Special Emergency Lighting, Truck Wiring and Switches:**

**Emergency lighting and wiring is a critical component of the Department Snow Removal and Maintenance Trucks. It is the intent of the Department that for the safety of IDOT personnel and general traveling public that the complete unit be installed as a system, to offer the most reliable and adequately illuminated truck possible. It is imperative that the system be installed with the highest industry standards.**

#### **General Requirements:**

1. All wiring terminal connections shall be crimped and soldered. All wiring must be uninterrupted and completed without splices of any kind.
2. All auxiliary wiring from the truck cab console shall pass through a romex type connector on the floor of the cab. The wiring shall be made continuous from cab to all lights and backup alarm as described below. Quick-disconnect type lead splices are *not* acceptable. All lights and backup alarm shall have a common ground lead returning to the in-cab junction box. This ground shall be a buss style with a #4 strap run to truck batteries. All body company wiring shall be grounded from this source. All ground wires in **Special Body Wiring** harnesses are to be 14 gauge.
3. All body and cab shield-mounted lights, wiring, and junction boxes shall combine to form a sealed waterproof system for commercial vehicles, utilizing standard production wiring harnesses where practical
4. Locations and installations of all wiring are subject to approval from Ogle County.
5. The successful bidder shall furnish a simple wiring diagram of the special wiring installation to each engineer at each of the delivery destinations.
6. All lamp connections and all junction box post connections, along with all internal and external pins in wiring couplers or receptacles shall be treated with a non-conductive, corrosion inhibitor.
7. A ground strap of #4 battery cable with eyelets shall be run from a stud welded to the body longitudinal member and bolted to a clean suitable location at the rear of the truck frame. The wiring harness shall be continuous and include color coded wire. Each wire in the harness shall be embossed with the function it services through the length of the harness. All conductors within the harness shall be 14 gauge wire. Routing, Clipping, and Grommeting shall be as required to effectively protect the various leads and harnesses from sagging, possible cuts, abrasion and/or vibration.
8. Size – 12 gauge wire.
9. Routing, Clipping, and Grommeting - As required to effectively protect the various leads and harnesses from possible cuts or vibration.

**Special Trailer Harnesses** - Continuous color coded, 7-conductor from truck cab to end of truck frame for operation of trailer lights and electric trailer brakes. Non ABS and ABS with combination Stop/Turn/Tail lights.

Connector – Green ABS 7-way ATA approved socket with weather cap.

Black Non ABS 7-way ATA approved socket with weather cap.

Conductor Use:

1. Ground to towing vehicle.
2. Clearance and identification lights.
3. Left turn signal and disability lights.
4. Stop lights.
5. Right-turn signal and disability lights.
6. Tail lamps, three-bar marker lamps and other clearance or marker lamps.
7. Anti-lock brake device / Battery.

**Note:** Lighting conductors to be continuous to in-cab junction block. Brake conductors to be continuous to under dash area with ample lead for later installation of electric brake controller by the Department of Transportation. Brake conductor leads shall be labeled, coiled, and secured in an accessible location under the truck dash area. Specific wiring instruction will be provided by the Department of Transportation prior to final assembly.

The Switch Panel shall be in the dash configuration or equivalent.

**Switches:**

Panel Switches shall be programmable and include the following:

- Day-Night (Switch for LED Warning Lights)
- Front LED
- Side LED
- Body LED
- Spreader Light(s)
- Air Tailgate w/guard
- Wing Light
- Auxiliary switch (spare)

The above switch functions shall be back lit in the panel by LED and increase in brightness when activated. All switches shall carry a manufacturer's warranty. Warning indicators for Hydraulic Oil Low (Blue) and Body Height (Red) shall be displayed in the operator's station. The warning indicators shall flash when activated and the body height indicator shall include an audible alarm when activated.

The switches shall be self-protecting and must not reset until the short circuit or over-load condition is corrected.

A 50 amp thermal breaker with manual reset shall be provided in the wire between the power source and the switch panel. The breaker shall be located within 18" of the battery source prior to entering the cab and in a protected location.

A lug capable of supporting a constant 20 amp current draw without fuse protection shall be provided within the console for installation of an IDOT owned FM radio equipment.

One wire shall be run from the switch to accessory and one wire from the battery to the switch panel.

## Special Power Distribution and Mounting Center:

The Power Distribution Center shall consist of the installation of a constant duty relay, LED warning light power module, air tailgate valve, spreader control module, and power distribution center. All modules shall be individually sealed (potted) units with protected, weather-proof connectors. Location for this Power Distribution Center shall be between seats along the back wall of the cab, under passenger seat and have the capability to protect all components from possible damage.

### Requirements:

A minimum 75 ampere constant-duty magnetic type relay shall be provided to remove specified accessory circuits from the ignition key switch to prevent switch overloads, yet retaining key switch on-off control. The relay shall be a Bosch-75 amp relay or a Department of Transportation approved equivalent. Circuit breaker board with minimum of (6) accessible terminals for connection of IDOT radio, spreader and joystick control power module, LED warning light module, and the electric trailer brake control if required with either resettable or ATC fuses sized appropriately. The air tailgate valve for control of dump body tailgate latch mechanism will also be located here.

Accessible terminals shall also be available for controlling additional IDOT installed electrical equipment.

Installation and the use of alternative products will be subject to prior approval of the Illinois Department of Transportation.

A 150 amp Thermal breaker with manual reset shall be provided for the Dump Body Vibrator. Any additional relays or wiring needed for proper connections shall be included.

### Auxiliary Snow Removal Headlights with Park/Turn Lamps:

The auxiliary headlights shall be fully LED including outboard mounted park/turn, and rear view light – ABL 3830-0080 or equivalent. To be considered equal, the lights must provide the same level of light, and be designed utilizing tempered glass lens so it will not fade or fog. The design of the light shall enhance the transfer of the heat generated by the LED(s) to the lens to keep them free of snow and ice build-up. Lights including wire type heating elements will not be considered equal.

Shock mount adjustable sockets attached to heavy 304 stainless steel support brackets or factory fender mirror mounts. Support brackets shall be securely mounted providing a minimum height-to-center of light shall be 70" above road surface. Mounting through the fiberglass will require an isolation type mounting. Final location and installation of these components shall be subject to Department of Transportation approval during completed truck's pilot inspection.

Headlights (LEDs) shall be clear - Park/turn lights and rear view light (LED's) - amber.

Headlight/Plow light switching control shall be located in the dash and provided by the truck manufacturer. Wiring for the plow lights shall be furnished and routed by the truck manufacturer to a location near the front grill area. There shall be weather tight connections for attachment of the plow light/turn signals. **Note:** If the Plow light controls are integrated in the factory body control module the vendor or manufacturer shall make available to Ogle County the proper diagnostic tools, personnel, or parts to test and repair the system during a snow emergency.

Auxiliary park/turn lamps to operate in unison with standard park/turn lamps.

Operation in Auxiliary Mode requires a combination light control switch and dimmer switch control for auxiliary headlights so standard headlights are **not** on.

The high beam indicator in the dashboard shall function in either mode of headlight operation.

**LED Light Bar** - The light bar shall be 72" in length with a maximum height of 3.75 inches, a depth of 12", and designed for aerodynamic efficiency. The main structure shall be of heavy gauge extruded aluminum. The light bar's outer lens shall be clear and constructed of



polycarbonate. Each section must be completely sealed and attached to the base with screws. Each lens must be easily removable without removal of the light bar from the roof. The light bar shall contain one (1) control module I/O board which shall contain all the electronics required to operate all six (6) internal Super-LED amber light modules. The LED light modules will be located at each of the four corners of the bar with the additional (2) located inboard forward facing, or to the Department's requirements. Each light module shall be independent and shall be easily removable without removal of the light bar from the roof of the cab. The light bar must have Hi/Low power control of all LED modules. Location - Mounted to the cab roof. Mounting brackets shall include a minimum 7" cast aluminum riser with an aluminum angle mounting bracket for the two-way, radio antenna. Mounting brackets to be securely fastened using stainless steel cap screws. **Note:** Roof to be adequately reinforced by the truck manufacturer and all mounting subject to IDOT approval.

*The system shall meet or exceed SAE J845 Class 1A, June 2013. Omnidirectional Light bar shall be certified by an AMECA-accredited testing lab to meeting these requirements in the appropriate specified safety colors. The Amber shall meet or exceed Amber J845 Class 1S (130), the Clear shall meet or exceed Clear J845 Class 1S (120), the Amber Vertical shall meet or exceed Amber J845 Class 1S (40), the Clear Vertical shall meet or exceed Clear J845 Class 1S (40) June 2013. Certification document to be included with bid.*

#### **LED-Combination Tail/Stop and Rear Signal:**

Type - Dual combination 4 1/8" X 6 1/2" Class A, LED, sealed, shock mounted, capable of flash alert pattern before steady burn.

Location - Rear of truck chassis mounted to pintle plate.

Lens color - Red.

Taillight control - Combination light control switch.

Brake light control - Brake control.

Turn signal control - Turn signal control switch and 4-way hazard warning switch.

#### **Additional Body-Mounted Rear Stop/Tail and Turn Signal LED Lights:**

Type - Dual, oval 2" x 6" single-face, sealed, shock mounted, High Intensity LED capable of flash alert pattern before steady burn.

Location - In the dump body rear corner braces.

Lens color - Red.

Control - In series with standard stop/tail and turn signal lights.

#### **Additional Body-Mounted Rear LED Lights:**

Type - Sealed LED designed with 180° light pattern, mounted in a 7 gauge heavy-duty stainless steel narrow aerodynamic angled leading edge housing not to exceed 2 9/16" in width. Stainless steel housing to accommodate three (3) Linear Super LED's approximately 1 5/8" x 5" in size. All warning lights to be wired into a single central encapsulated flasher unit.

Location – Along each side of the rear of the dump body rear corner positioned in front of the rear marker light and mounted as high as possible, while remaining within the limits of the rear corner.

Flashing sequence – Flashing light sequence to flash high and low LED and then center LED with opposing flash sequence on each side.

Color – Amber - Top & bottom (2 each light – heads per housing). White - center.

Wiring – All cabling shall be salt, chemical, and oil resistant TPR style. All connections shall be "Deutsch" or "Weather Pack".

Control - Special circuits with power supplied through the switches on the console.

Warranty – All LED warning lights and flashers to be warranted for a minimum of 5 years.

**Additional Cab Shield-Mounted Rear Stop/Tail and Turn Signal LED Lights:**

Type – Dual, 4 1/8”H x 6 1/2”W, LED, single-face, sealed, shock mounted, High Intensity LED S/T/T lights, capable of flash alert pattern before steady burn.

Location - Top of cab shield at each end.

Lens color - Red.

Control - In series with standard stop/tail and turn signal lights.

Special guards - Heavy steel with enclosed back and sides and removable top for access designed to protect light assembly from heavy shocks, yet provide a clear view of lights from the rear at all dump body angles. The wiring for each light shall be in conduit or tube along the inside front of the cab shield.

**Additional Cab Shield-Mounted LED Warning Lights:**

Type – Dual 4 5/16”H x 6 3/4”W x 1 3/8”D warning lights. The warning lights shall incorporate Linear

Super-LED and Smart technology. Each light head shall be populated with a minimum of (18) amber and (18) white Super LED’s and be covered with a clear optic hardened automotive lens. The lens shall seal against moisture, dust and other environmental conditions. The light pc board shall be conformal coated and mounted in the light base. The light head shall include approximately 160 different flash patterns.

Location - Top of cab shield at each end next to the S/T/T lights on the special guards.

Special guards - Heavy steel with enclosed back and sides and removable top for access designed to protect light assembly from heavy shocks, yet provide a clear view of lights from the rear at all dump body angles. The wiring for each light shall be in conduit or tube along the inside front of the cab shield.

**LED-Rear Identification Lights (3-Bar):**

Type - Three, single-face, LED, sealed, and shock mounted with grommet approximately 2 1/2” in diameter.

Location - Rear of dump body.

Lens color - Red.

Control - Combination light control switch.

**LED-Body Clearance Lights:**

Type - Single-face, LED, sealed, and shock mounted with grommet approximately 2 1/2” in diameter.

Location - As required.

**Reflectors**

As required by Illinois State law.

All LED warning lights along with the LED S/T/T lights shall be hard coated polycarbonate and be warranted for a period of 5 years.

**Spreader Light:**

Location – Dual square LED type lights mounted under the right and left rear dump body corner posts. The lights provide a diffused light at spinner assembly of a conventional under-the-tailgate or slide-in hopper body material spreader.

Lens color – White/Clear

Control - Switch and circuit shall originate in the dash console.

**Body Height Indicator:**

Type - Electric.

Indicator Light(s) - Dash mounted or spreader control display with appropriate labeling.

Minimum Actuation Height 13', measured to top of cab shield.

Sensing Device Location - Body subframe or rear corner post.

Sensing Device Enclosure - Watertight, shock and corrosion resistant.

Wiring - Continuous with polyvinyl or equal insulation.

**Radio Antenna Cable:**

Vendor shall install agency-provided TAD mount roof antenna and coaxial wire in configuration similar to those on present agency trucks. Installation shall also include silicone caulking and sealing the bottom of antenna. Final routing of antenna cable shall be in the overhead console.

**Backup Alarm:**

Type - Electric, Preco 1040, Ecco, Whelen or equivalent.

Sound level – Self adjusting 87 to 112 decibels  $\pm 5$ , measured at 4'.

Location - Inside of frame near the rear of the chassis.

Wiring - Continuous to the backup light terminal of the special junction box described herein.

**HYDRAULIC SYSTEMS:****Hydraulic System for Dump Trucks/Snowplows:****General Requirements:**

A complete hydraulic system for operation of dump body hoist, hydraulically powered ice control spreaders, and hydraulically operated snowplows. The system shall be comprised of a variable displacement load-sensing pump supplying flow to a multi-section tie bolt stacks of load sensing control valve sections. The combined system shall be rated at 3000 PSI operating pressure. All sections will be fully pressure and flow compensated, and provide hydraulic power to all functions simultaneously if called for.

**Central Hydraulic System:**

- Constant Mesh PTO

- Load Sense Hydraulic Pump

- Pneumatic controlled hydraulic valve to operate hoist, plow auger/spinner

- Spreader controller

- 30 gallon carbon steel hydraulic tank with intank return filter

- Stainless valve enclosure

- Low oil / High temperature auto shut down system

- All required plumbing

**Console:**

- Pneumatic style console

- 7 warning light panel with 11 switches

- Control levers

- Hoist

- Dual axis – Plow lift / angle

- Force SSC3100 Electric spreader controller

**Note:** All items not specified but required to power the following: Dump body, plow lift, plow reverse, mid mount wing, spreader must be supplied. Spreader must not stop when other functions are used.

## **PINTLE HOOK & PLATE:**

Pintle Hook Model: Holland PH-T-60-AOL-8.

Location - As near as possible to rear of truck frame.

Clearance - Minimum 1" from tailgate or under-tailgate spreader, with the dump body in an elevated position.

Working height of pintle hook from ground approximately 25".

Pintle hook and all required bracing shall be assembled and attached to the truck frame in accordance with the manufacturer's recommendations.

The hook, connections and mounting structure must meet and exceed the capacities for the pintle hook described above.

The pintle hook mounting plate shall be a minimum of 1" thick steel filling the area between the frame rails, and extending below the frame as required.

A 2" diameter draw shall be located below the plate. The bar shall be approximately 26.5" long and shall be located so that the top of the bar is 17.5 inches above the ground surface. Draw bar is used for connection to Ogle County equipment.

The mounting plate shall provide for the connection of two (2) safety chains, providing a minimum of 50,000 lbs. capacity to the frame members of the truck should the coupler fail. This mounting shall not weaken the truck frame in any manner.

The ABS and Non-ABS trailer plugs shall also be incorporated in the pintle plate. The plugs shall be removable and replaceable.

## **SNOWPLOW PUSH FRAME:**

### **General:**

Type - Custom Heavy-Duty Pin & Loop Style Hitch

Plow use - Reversible, one-way, and V-type snowplows.

### **Hydraulic Lift Ram:**

Type - Single acting

Ram size – minimum 3" diameter, nitride coated rod

Stroke - 10" minimum

Ram and packing - Gland type ram with chevron type packing and locking nut

Hose - High-pressure type hydraulic hose Connection – cylinder port to be ORB

### **Snowplow Lift Arm:**

The snow plow lift arm shall be constructed of formed pieces of bar stock and shall provide reinforcement to the lifting assembly, and reasonable lateral stability for a one-way, reversible, or "V" type snow plow.

### **Front Bumper:**

Truck shall be equipped with heavy full width steel channel or angle bumper. The bumper shall be a minimum ½" material fully welded to the hitch and located to replace the standard manufacturer's front bumper.

**SNOWPLOW WING:**

**9' Full Trip Mid-mount Wing:**

Mid mount patrol wing  
Lift post mounted under body  
Toe cylinder stroke of 14" (10" Max Benching)  
Buffer brace support located between tandems  
Trip mechanism: Trip edge moldboard  
Cutting edge length: 9'-0"  
Cutting edge type: High carbon steel  
No discharge end curb shoe  
Heel cylinder mounting: Rear Heel Cylinder  
Buffer brace manually extended 24" (Std)  
Lock valve  
Moldboard color: Orange

**SPREADER:**

**Stainless Steel Under Tailgate Spreader:**

Constructed of 201 or 304 Stainless Steel  
Direct Drive  
6" Auger  
96" Wide, Far Left Drop  
Quick Mount Kit  
18" Polymer Disc Spinner  
Two hydraulic motor operation: one at auger and one at spinner

**Note:** Spreader hoses shall be securely mounted and ran to a manifold plate located under the dump body and near the rear hinge area. From the manifold plate the lines shall be split and extended to the rubrail manifold near each corner post. The left side manifold shall contain the pressure and return for the spinner. The right manifold shall contain the pressure and return for the auger. All manifold plates will use removable JIC bulkhead connections. Weld-in fittings will not be acceptable. The quick connections shall be recessed under the rear body corner post in a horizontal position for ease of maintenance and connecting with gloved hands. All required quick couplers, caps, and plugs shall be furnished even if a spreader is not installed.

**THE OGLE COUNTY ROAD AND BRIDGE COMMITTEE RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS.**

**IF THE BID DOES NOT MEET ALL THE ABOVE SPECIFICATIONS, ANY DEVIATIONS FROM THESE SPECIFICATIONS MUST BE NOTED OR THE BID WILL BE REJECTED. THE SPACE BELOW MAY BE USED TO NOTE DEVIATIONS.**