

ATTACHMENT B – BID PRICING SUBMITTAL FORM

Single Axle Chassis with Swaploader SL 2418 Hook Lift System– RFB #PUR0618-204

FOB POINT

The FOB Point, in terms of loss or damage, as well as where title to the goods is passed, shall be FOB - Destination.

FREIGHT CHARGES

Freight charges are to be included in the quoted price of the goods, rather than as a separate item unless otherwise noted.

BRAND NAMES

Unless otherwise indicated, the name of a certain brand, make or manufacturer does not restrict bidders to the specific brand, make or manufacturer named. It conveys the general style, type, character and quality of the article desired, and any article which the City in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation and suitability for the purpose intended shall be accepted. Any brand name or manufacturer's reference used in this bid is descriptive NOT restrictive. It is used to indicate type and quality desired.

EQUIVALENTS

The name of any manufacturer mentioned in the specifications is for the purpose of establishing a minimum acceptable standard of quality desired by the City. On all items bid, the bidder shall indicate clearly the product being bid and, where applicable, shall supply catalog cuts and descriptive literature with the original copy of the bid. Equivalent products will be considered for all products unless it is specifically indicated for a particular product that no substitutions are allowed. It is the sole discretion of the City to make the determination if a product will be acceptable as an equivalent.

SPECIFICATION COMPLIANCE

Any supplier who willfully falsifies responses indicating compliance or non-compliance with the minimum requirements listed below will be subject to suspension and/or debarment from bidding. Vendors shall complete every line on the bid submittal forms (Does not meet Spec, Meets Spec or Exceeds Spec) and indicate the exact item being bid to meet the minimum specified item. An X, check mark, or yes will indicate the item specified is being provided. All bullet points must be acknowledged with the aforementioned. All exceptions shall be stated no matter how seemingly minor.

Specifications for Single Axle Chassis with Swaploader SL 2418 Hook Lift System, including dump body, plow, spreader, and pre-wet system attachments, for Fleet Services.

Cab & Chassis

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
1	Engine				
	Cummins L9, 330 Horsepower at 2200 RPM, 860 ft/lb torque at 1400 rpm (must have wet cylinder sleeves/lines), no substitutions				
2	Engine Equipment				
	Engine shall be equipped with a dry type air cleaner				
	Engine shall be equipped with a 1250 watt, 120-volt block heater (minimum)				
	12V 150 AMP alternator (minimum)				
	2 -12V threaded stud batteries 1850 CCA minimum. State the CCA _____				
	Single battery box frame mounted LH under cab				
	Frame ground return for battery cables				
	Positive and negative posts for jumpstart mounted near/on battery tray/box				
	Electronic engine shutdown protection system				
	13.2 CFM minimum air compressor				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Engine after treatment device, automatic over the road regeneration and dash mounted regeneration request switch				
	6 gallon diesel exhaust fluid tank				
	Exhaust appropriate for body configuration, up-fit and Federal Regulations horizontal exhaust pipe				
	Air operated fan clutch				
	Automatic control without dash switch				
	Aluminum radiator, 1200 sq inch minimum				
	Anti-freeze to -40F				
	Heavy duty coolant hoses				
	Air intake- pre-cleaner				
3	Transmission and Equipment				
	Allison 3500 RDS automatic transmission, with PTO provision, 6 speed, no substitutions				
	Vehicle interface wiring and PDM with body builder connector back of cab w/ sealed connectors				
	Electronic transmission customer access connector firewall mounted				
	Water to oil transmission cooler, in radiator end tank				
	Indicator, Low Coolant Level, with audible alarm.				
	Magnetic plugs, engine drain, transmission drain, axles fill and drain				
	Push button, electronic shift control, dash mounted				
	Transmission oil check and fill w/ electronic oil level check				
	Synthetic transmission fluid				
4	Front Axle and Suspension				
	14,000 lb front axle (minimum)				
	16.5 x 5 Q+ cast spider cam front brakes				
	Non-asbestos front brake lining				
	Cast iron front brake drums				
	Standard spindle axle nuts for all axles				
	Automatic front slack adjusters				
	Power steering				
	14,000 lb front suspension leaf spring w/ maintenance free auxiliary rubber springs (minimum)				
	Heavy duty front shock absorbers				
5	Rear Axle and Suspension				
	23,000 lb rear axle (minimum)				
	23,000 lb flat leaf spring rear suspension with helper and radius rod				
	Driver actuated traction control, differential unlock with ignition off, active <5 MPH				
	Main driveline with half round yokes				
	16.5 x 7 Q+ cast spider cam rear brakes, double anchor				
	Brake cams and chambers on forward side of drive axle				
	Non-asbestos rear brake lining				
	Drive axle spring parking chambers				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Automatic rear slack adjusters				
	Cast iron rear brake drums				
	6.14 rear axle ratio				
	Synthetic 75W-90 rear axle lube				
6	Brake System Equipment				
	Air brake package				
	Cam type system				
	Air parking brake				
	Nylon air line, color and size coded				
	Standard brake system valves				
	Relay valve with 5-8 PSI crack pressure no rear-proportioning valve				
	AD-9 air dryer with heater, mounted inside frame rail				
	Pull cables on wet tank, petcocks on other air tanks				
	Front and rear brake covers (dust shields)				
7	Wheelbase & Frame				
	162" Wheelbase				
	Body Company installed additional front frame reinforcement for snow plow				
	63" rear frame overhang				
	24" integral front frame extension				
	Square end of frame				
	Cab to axle = 96" Must be compliant with body manufacturer requirements				
8	Chassis Equipment				
	One piece solid steel front bumper, w/ bumper mounting for license plate				
	No mud flap brackets, no rear mud flaps				
	Grade Eight hex headed frame fasteners				
	Clear frame rails / NO protrusions outboard both frame rails BOC to front rear suspension bracket				
9	Fuel Tank and Equipment				
	50-gallon minimum rectangular aluminum fuel tank LH				
	6 gallon DEF tank				
	Plain aluminum w/ painted bands				
	Fuel tank forward				
	Tank not to extend beyond rear of cab				
	Reinforced nylon fuel hose				
10	Front Tires, Hubs, Wheels				
	Two (2) - 11R22.5 - 16 ply				
	Cast iron front hubs				
	22.5x 8.25 10 stud- hub pilot steel disc front wheels				
11	Rear Drive Tires, Hubs, Wheels				
	Four (4) mud and snow rear 11R22.5 - 14 ply tires				
	Cast iron rear hubs				
	22.5x8.25 10 stud- hub pilot steel disc rear wheels				
12	Cab Exterior				
	Flat roof standard conventional cab				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Cab air suspension				
	LH and RH exterior grab handles				
	Dual electric horn				
	All locks keyed the same				
	Rear license plate mount at the end of frame				
	Integral headlight/marker assembly				
	(5) amber marker lights on cab, LED				
	Omit Stop/Tail/Backup lights and provide wiring with combination Stop/Tail/Turn wires, and Backup light wires to 4' beyond end of frame. WE WILL NOT ACCEPT MULTIPLE LIGHTS.				
	Switch and wiring with stainless steel brackets mounted outboard roof for 2 Whelen lights L41AP				
	Standard front turn signal lamps				
	Dual heated West Coast mirrors with LH and RH Remote, power (no substitutions)				
	Door mounted mirrors				
	102" equipment width				
	LH/RH 8" convex mirrors mounted under primary mirrors				
	Standard side/rear reflectors				
	Tinted rear window				
	Tinted door glass LH & RH with tinted non- operating wing windows				
	Manual door /window regulators				
	Tinted windshield				
	Windshield washer fluid reservoir, 1 gallon minimum				
13	Cab Interior				
	Gray vinyl interior				
	Molded plastic door panels				
	Forward roof mounted console with upper storage compartments with netting				
	Floor mats, Minimizer molded floor liners, black				
	(2) cup holders				
	2-1/2 LB. fire extinguisher inside cab				
	First aid kit				
	High output heater, defroster and air conditioner				
	Main HVAC controls with recirculation switch				
	Standard heater plumbing				
	High output air conditioning				
	Integral snow valve with in cab control for under hood air selection				
	Cab insulation				
	Circuit breakers-manual reset				
	Dome light with 3-way switch activated by left and right hand doors				
	Cab door latches with manual locks				
	High back air suspension driver's seat				
	High back non suspension passenger seat				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	LH and RH integral door panel arm rests				
	Driver Seat- National, Cordura or equivalent, cloth				
	Passenger Seat- National, Cordura or equivalent, cloth				
	3 Point fixed d-ring retractor driver and passenger seat belts				
	Fixed steering column				
	Battery disconnect located by drivers seat				
	450MM (18") spoke steering wheel				
	Driver and passenger interior sun visor				
14	Instrument Panel and Controls				
	Low air pressure light and buzzer				
	Primary and secondary air pressure gauges. Intake mounted air restriction indicator without graduations				
	Back up alarm 97 db minimum				
	Cruise control, electronic, with switches on the dash/ steering wheel				
	Key operated ignition switch and integral start position; 4 position Off/Run/Start/Acc				
	4 keys required				
	ODO/Trip/Hour/Diagnostic/Voltage display				
	Diagnostic interface connector, 9 pin, located below dash				
	Electric fuel gauge				
	Engine remote interface with park brake and neutral interlocks				
	Engine remote interface for remote throttle				
	Engine remote interface connector at back of cab				
	Electrical engine coolant temperature gauge				
	Transmission oil temperature indicator light				
	Power outlet on dash				
	Test Exterior Lights- flashes exterior lights in sequence for driver pre-trip inspection				
	Engine and trip hour meters				
	Electric engine oil pressure gauge				
	Standard AM/FM radio; (2) radio speakers (cab only)				
	Electronic MPH speedometer with secondary KPH scale, without odometer				
	Electronic tachometer				
	Ignition controlled engine stop				
	Single windshield wiper motor with delay				
	Marker light switch integral with headlight switch				
	Switch and terminals for customer furnished snow plow lights- temporary installation of control modules				
	Self cancel turn signal switch with dimmer, washer/wiper in handle				
	Integral electronic turn signal flasher				
15	Paint Designs				
	Paint: one solid color				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Cab color Bright White from manufacturer standard color sheets, Premium paint, base coat, e-coat, clear coat.				
	Chassis: black, high solids polyurethane				
	Front wheels: powder coated white front wheels/rims, to resist corrosion				
	Rear wheels: powder coated white rear wheels/rims, to resist corrosion				
16	Manuals				
	Hard copy manuals, CD if available				
17	Warranty				
	Minimum three year warranty to include basic warranty, drivetrain, engine, after treatment, towing and roadside assistance				
18	Training				
	Eight hours of mechanic level training to include preventive maintenance, adjustments, and common maintenance insights from the manufacture. 8 hours of operator level training to be determined by customer after purchase				
19	Filter Log				
	Successful bidder will provide a filter log for all filters on the completed unit. Log must include filter type and part number				
20	Electrical Connections (all connections must meet this standard minimum)				
	All lighting used shall be, at a minimum, a two (2) wire light grounded through a wired connection to the battery system.				
	Wiring shall be run in loom where exposed, and have grommets or other edge protection where wires pass through metal.				
	Exterior exposed wire connectors shall be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment shall be installed utilizing the following guidelines: All wire ends not placed into connectors shall be sealed with a heat shrink end cap. Wires without a terminating connector or sealed end cap shall not be allowed.				
	All holes made in the roof shall be caulked with silicon (no exception).				
	Corrosion preventative compound shall be applied to non-waterproof electrical connectors located outside of the cab or body. All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation of the plug.				

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	Any lights containing non-waterproof sockets in a weather-exposed area shall have corrosion preventative compound added to the socket terminal area.				
	Rubber coated metal clamps shall be used to support wire harnessing and battery cables routed along the chassis frame rails.				
	Heat shields shall be used to protect harnessing in areas where high temperatures exist. Harnessing passing near the engine exhaust shall be protected by a heat shield				
	For ease of identification, battery cables shall be color coded. All positive battery cables shall be red in color or wrapped in red loom the entire length of the cable. All negative battery cables shall be black in color				
	Wire connections shall be made using crimp style heat shrink butt splice connectors or soldered connection covered with heat shrink. If crimp style connector is used, crimping tool Westward 13H876 or equivalent must be used to prevent piercing heat shrink. Solder sleeve butt splice type connectors shall not be allowed.				

Dump Body

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
1	Dump Body				
	11' body length for Swaploader rear cross member clearance				
	Approximately 6.5 yard side capacity and 8.5 yard end capacity				
	Sides to be 30", ends to be 36" to 38"				
	Sides and front to be constructed of 7 gauge grade 50 high tensile steel or equivalent with one (1) intermediate horizontal weld-in or press -in center brace				
	Floor constructed of ¼ AR 400 steel or equivalent				
	All welds to be continuous				
	Side to floor formed radius shall be integral with the floor. Weld in radius is not acceptable				
	Longsills must be 8" x3" x 3/8" structural tube with A frame hook-lift compatible with Swaploader 2418				
	Dump body rear bolsters, all tailgate bracing, rear apron beneath tailgate, and all external tailgate hardware to be stainless steel to be 201 or 409 grade stainless steel, painted or coated to match the dump body				
	Fully boxed top rail				
	Understructure needs to be cross-member-less				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Ladder on side (fold up) – Driver side towards front of body. Grab handle mounted on body accessible from ladder to provide added safety				
	Permanently attached safety prop shall have the ability to be locked in place and the pivot point shall have a grease zerk				
	(2) Shovel holders SH675SS shall be mounted to each side of dump body (one on each side). Mounting plate for shovel holders shall be welded to the side of dump body. Location to be determined by City of Cedar Rapids.				
	Under body toolbox 24" W X 18" L X 18" H mounted on right side forward of rear axle				
	2" X 12" green treated side boards with center supports mounted in channel at top of box, painted black				
2	Tailgate				
	Tailgate must be double acting, 7 gauge 2 panel, to have weld-on tailgate brace.				
	Off-set tail gate hinge design				
	1-1/4" 1045 steel, tailgate pins				
	5/16" Hi-tensile tailgate chains. Chains must be long enough to lay tailgate level with floor.				
	Air operated tailgate locks using a standard brake chamber				
	3/4" - 1" tailgate latching fingers				
	Upper tailgate pivots to be grease zerk lubricated. (Stainless steel bushings are acceptable)				
	Tailgate shall be level with dump body floor when tailgate is lowered				
3	Cab Shield				
	Cab shield not to exceed 4" above cab of truck. Cab shield to extend 22" over cab of truck				
	Cab shield to be stationary and mounted the truck frame				
	Four oval holes in cab shield for warning strobes. Two on the front of cab shield, one on each side of cab shield. Location of holes to be approved by City of Cedar Rapids				
	Bracket welded to the center leading edge of cab shield to accept Whelen R1LPHP-A or equivalent				
	Tool holder mounted right side front of cab shield mounted to the cab shield post. Stainless steel.				
4	Hoist				
	Swaploader 2418 hoist, no substitutions				
	(1)Double acting lift cylinder to raise under body hoist				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
5	PTO				
	Chelsea hot shift PTO mounted to the 3500 RDS Allison transmission, no substitutions				
6	Hydraulic Lines				
	Hydraulic lines to insert spreader shall terminate on the right side rear inside frame rail with hydraulic couplers				
	All pressure hoses shall have swivel fittings on <u>both</u> ends and have a minimum SAE 100-R2 rating. Return lines and case drain shall have minimum SAE 100-R1 rating.				
	Hydraulic lines shall be routed as not to interfere with OEM equipment that requires routine maintenance				
	Hydraulic hoses shall be routed on chassis without fasteners, clamps, or plastic ties connected to any OEM wiring, air lines, transmission or engine hoses or pipes				
	Hydraulic hose support brackets shall be constructed of stainless steel using stainless steel fasteners to secure hoses to bracket				
	No pipe fittings shall be accepted in any high pressure line				
	Maximum distance between supports =24"				
	All hydraulic hoses shall be routed to prevent chafing, pinching, or exposure to exhaust heat				
	Faster brand lever activated and locked quick connect for use with the hook lift system. Unit to be mounted on the top of the truck frame facing the street side.				
7	Lights				
	All lights shall be LED				
	Swaploader rear light bar mounted to the rear pintle hitch plate, stainless steel construction, light bar to include: The light bar includes LED stop/turn/tail, 12 volt amber LED warning flashers, and LED back-up light each side. NO lights on dump body, all lights stay on truck chassis.				
	Four oval amber LED strobes mounted inside cab shield, (two front, one left one right)				
	A Whelen R1LPHP-A shall be mounted to the cab shield bracket, no substitutions. Must have an external ground wire to dump body				
	Trailer light/trailer brake connection shall terminate in rear hitch plate with 7 pin female plug Pollak 12-705 or equivalent				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	<p>Circuit Boss – Circuit Isolator # 70207 (7 circuits), no substitutions. Painless is the current product line we use configured as follows: Circuit 1-3 – constant power Circuit 4-7 - ignition powered</p> <p>Henderson power distribution panel to isolate equipment electrical from truck chassis electrical. Includes fuses for each circuit. All circuits labeled and are lit red or green to ease trouble shooting and maintenance.</p>				
8	Trailer brake controller				
	Electric brake controller shall be mounted per final discussion with successful bidder				
	Electric brake controller shall be wired to the trailer light plug mounted in the rear hitch				
	All wires shall be routed behind dash using heat shrink connectors and corrugated plastic split loom				
9	Rear Tow Hitch				
	Tow hitch plate to be constructed of ¾" steel plate				
	Two (2) weld on ¾" D-rings				
	Bolt on 30,000lb pintle style hitch, height to be adjustable with three sets of mounting holes to allow varying hitch height				
10	Paint				
	Dump body to be washed, sandblasted, undercoated, and primed and painted or powder coated with Dupont Imron NO635 Green Frame to be washed and primed and painted black				
11	Mud Flaps/Fenders				
	Full poly fenders over rear wheels				
12	Manuals				
	Parts, service and operation manuals required for all components installed. Books or CD if available				
	Build sheet for chassis to be provided by chassis dealer				
13	Training				
	The successful vendor, at a time mutually acceptable with City staff, shall provide a minimum of three (3) hours of training to operators and mechanics covering the operation and maintenance of equipment				

Plow and Spreader

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
1	Front Plow Option				
	11' torsion trip style plow, with replaceable plow edge				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Trip edge plow				
	Plow height no less than 36" (measured from top side of cutting edge position)				
	Integrated shield				
	Stainless steel moldboard with steel framework painted safety orange				
	Screw type parking jack				
	12" wide rubber deflector				
	Delete skid shoes				
	27-36" rubberized cable style plow markers				
	Right hand mailbox cutout				
	Two (2) 5/8 x 8" cutting edges, bolted to moldboard				
	Bolt on curb shoe on each end of moldboard that extend beyond edge of moldboard				
	Manual relief valve mounted to front bumper plumbed to plow angle circuit				
	Cushion valve mounted on plow				
2	Plow Hitch Option				
	3 1/2" X 3 1/2" X 1/2" steel circle frame with positive stops				
	Universal quick hitch swivel plow mount, 30.5" center to center				
	4"x10" double acting hydraulic lift cylinder				
	Plow hitch shall be mounted in such a way that the engine hood can be fully opened				
	Front frame extensions as appropriate to support installation of front plow				
3	Plow Light Package Option				
	7" heated LED Truck Lite plow lights, part no. 80990, no substitutions. To be mounted on the left and right side fenders to illuminate the roadway and plow area. Light shall have one hexagon shaped clear beam and one round amber turn/marker Manufacture wired for plow lights.				
	All plow light mounts and hardware must be stainless steel				
4	Hydraulic Controls (With Option A)				
	All hydraulic controls must be compatible with Swaploader 2418				
	Force America Patrol Commander MPJC Ultra with plow control, dump body				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	control, and a 5100 EX sander and spinner control. No substitute shall be accepted				
	Switch console shall consist of (4) rocker switches to control auxiliary lights, etc. Force America UD4, no substitutions. Location of switch console to be determined with successful bidder. Switches to be relay protected with appropriate fuse block protection				
	Control center shall be installed to driver's seat, location and construction to be determined with successful bidder				
	Spreader display shall provide spread rate information and provide warning lights for low oil, body up, high oil temp, and filter bypass				
	Spreader display location to be determined with successful bidder				
	Event logging key for AVL system shall be installed to access information from the hydraulic control center				
	(2) supervisor/calibration keys				
	TXV92 load sensing pump directly mounted to PTO (no driveline) No substitutes shall be accepted				
	Pump shall have a minimum 2" suction line and ½" control drain line plumbed directly back to the reservoir				
	Control center shall be installed to driver's seat, location and construction to be determined with successful bidder				
	Stainless steel valve enclosure/ reservoir shall be mounted to the left side of truck frame, forward of rear axle				
	Hydraulic valve enclosure shall be mounted in such a way that the cover can be removed while the hoist is in the lowered position				
	Mounting bracket to be designed and supplied by reservoir supplier				
	Must be equipped with fluid level indicator, sight gauge and filter				
	Tank must have a 2" full flow brass ball valve plumbed at the suction port of the tank.				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Valve enclosure shall be a Force America VT35, or equivalent				
	The hydraulic control valves shall be pulse width modulated, proportionally controlled				
	Hydraulic valves shall be Force America Add-A-Fold. No substitutes shall be accepted				
	Valve sections to be arranged as follows: Hook, 4-way Jib, 4 Way Pressure Reducing section 2800 to 2000 psi Plow Angle, 4-way Plow Lift, 4-way with float Spinner, 2-way Auger, 2-way				
	Each hydraulic valve segment shall be equipped with a manual override				
	There shall be a float type level sensor for low oil and high temperature mounted through the top of the reservoir. It will be a normally open circuit rated for 3 amps. When the oil reaches a critical level this circuit will close sending a signal to a relay, disengaging the PTO and pump, shutting off the flow of oil to the system. At the same time, a signal will be sent to an indicator light on the control panel that alerts the operator of system shut down. The control panel will also incorporate a momentary override switch wired to de-energize the shut down system to facilitate diagnostics and equipment storage				
5	Salt Insert Spreader				
	Capacity 5.2 cubic yards				
	11' spreader				
	12 gauge stainless steel hopper and supports				
	10 gauge stainless steel formed in chain shields				
	7 gauge stainless steel body floor, stitch welded				
	Stainless steel inverted "V"				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Spreader must be mounted to Swaploader compatible 6" long sills with A frame hook lift for Swaploader 2418 hoist, carbon steel painted black				
	Lift hooks on each corner, ¼" x 2" stainless steel plate				
	To provide accurate calibration of the material flow a feed gate indicator and ruler shall be provided				
	Dual stainless steel auger system				
	Hinged top screens carbon steel				
	Stainless steel shield to be installed between the top front of spreader to overlap the cab shield				
	4 spinner overlapping deflectors				
	Stainless bypass chute for unloading				
	Spinner hydraulic motor shall be mounted directly to spinner plate, above or below spinner. No drive shaft or bearing blocks accepted				
	3.6.1 reduction gear case				
	Tilt up spinner with manual hand crank and cable required				
	Ladder to access hopper bolted to driver's side of spreader using "grip strut" steps. Must be accessible from ground level				
	20" urethane spinner with 6 fins				
	Sander light shall be mounted to the left rear truck, Whelen PAR-36 or equivalent. City of Cedar Rapids will approve mounting location				
	Sander LED light shall be wired to the 7 pin trailer plug to come on with the tail lights				
	All stainless steel components shall remain unpainted				
	All carbon steel bolt on components shall be sand blasted after welding, epoxy primed and powder coated black.				
	Feedback sensor located near Faster connector in Swaploader A-Frame.				
	Conveyor feedback sensor to be integral with conveyor motor. Sensor replaceable without having to change entire motor.				

Hydraulic Pre-Wet System

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
1	Pre-Wet System				
	Henderson PWS-H Hydraulic Pre-Wet System, no substitutions				
	Dual 200 gallon tanks installed on V-box spreader (should include stainless steel mounting brackets) with 5" diameter vented fill cap				
	Operation thru spreader controls				
	Corrosion-resistant components throughout				
	Replaceable in-line screen strainer				
	Shut-off valves				
	2" diameter fill quick couplings for tanks				
	Variable displacement orifice to provide an extended range of material output, to place liquid on granular as it falls thru the chute spinner				
	Add valve section for hydraulic pre-wet system				
	8.2 GPM hydraulic pump for pre-wet				
	Flow meter for closed loop control				

Swaploader SL 2418-no substitutions

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
1	Hook Lift System				
	Hooklift shall be able to handle skid-mounted containers/bodies with lengths of 10 through 13 feet				
	Minimum of 24,000 pounds dumping capacity and a minimum lifting capacity of 18,000 pounds with gross weight evenly distributed in and/or on container/body				
	Minimum lifting and dumping capacity must be achieved for all stated container/body lengths				
	Hooklift shall have a minimum of 57 degree dump angle, on a 41" truck frame height chassis				
	Hooklift shall not to exceed 3,050 pounds in shipping weight				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Skid-mounted containers/bodies shall be supported with a pair of 6-1/4" minimum diameter outside flanged rollers at the rear of the hoist, and be adjustable to accommodate bodies/containers with outside subframe rail widths of 40-1/2" or 41-5/8"				
	The hook to rear roller dimension to be 118" in length				
	Hooklift shall be capable of being mounted to a truck chassis with a 96" cab-to-axle dimension for optimum weight distribution and stability				
2	Hooklift Operation				
	The hooklift telescopic jib shall be capable of hydraulically sliding the container/body horizontally on the chassis to adjust weight distribution while remaining in the body locks and without lifting the container/body rails off the hoist frame. Tilting or articulating jib designs are not acceptable				
	Hooklift shall have a dual rear pivot section incorporated into the hoist design to allow for both a true dump truck operation, with the container/body secured to the hooklift via body locks during the entire dump cycle, and increased mounting leverage at the beginning of the container lift cycle				
	Hooklift jib to reach rearward to the A-frame lifting bar by means of double articulating hinge points (dual rear pivot) incorporated into the hoist mechanism				
	All lift sections shall lock into a common rigid full-length frame to support the body/container when in a dump mode. This must be accomplished by mechanical operated latches, which lock the mast without relying on gravity or hydraulic operated locks to accomplish				
	Must have a jib lockout valve to prevent jib operation while in a dump mode				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	Hooklift shall be designed to function through all modes, load/unload and dump, without the use of breakaway tabs and/or proximity switches				
3	Hydraulic Cylinders				
	Dump/lift cylinders to be a minimum 5.5" bore, 2.5" rod diameter and 39" stroke				
	Dump/lift cylinders are double acting, twin cylinders, sized for the unit capacity with dual integral counterbalance valves				
	No external or remote mount (connected by steel lines) counterbalance valve configurations to be accepted				
	Cylinders must be manufactured in the U.S.A.				
	Telescopic jib cylinder shall be double acting, single cylinder, sized to unit capacity with a single counterbalance valve				
	Jib cylinder to be a minimum 4" bore, 2" rod diameter and 24" stroke				
	No external or remote mount (connected by steel lines) counterbalance valve configurations to be accepted				
4	Mainframe Design				
	The mainframe of the hoist is to be constructed of a "Z" rail configuration				
	The "Z" rail mainframe is to be a maximum of 8.5" in height and constructed of 1/4" thick A572 50 KSI steel				
	Hoist "Z" frame rails to include a minimum of 6 (or 3 per side) 11-3/4" x 2-3/4" x 1/2" Nylatron wear pads for container/body support. The Nylatron pad will allow the containers/bodies to slide back and forth horizontally on the "Z" rail of the hoist with ease. Metal to metal contact (direct contact of the container/body subframe rail on the hoist mainframe rail) will not be allowed				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
5	Jib Hook Design				
	Vertical Jib to be constructed of a 8" x 8" x 3/8" wall square tube of A500 46 KSI steel				
	Jib hook height shall be 54" from the bottom of the container/body subframe rails to the bottom of the A-frame lift bar				
	Hooklift shall be able to pick up a container/body that rests 21" below the grade that the truck chassis is on (assumes a 41" truck frame height)				
	Jib hook to be designed to secure container/body to hoist without the need for a hook latch mechanism to cover the hook opening				
	Jib hook to be permanently welded to jib. No bolt on jib hook will be allowed				
6	Pins				
	All hooklift pins to be constructed of high-strength CFR steel bar; stainless steel pins are not acceptable				
	All pinned connections to be greasable to both lubricate the joint and flush out all contaminants				
7	Body Locks				
	Hooklift body locks shall be designed to secure the container/body to the hoist during an overturn situation of the truck chassis				
	Prong style body locks are not acceptable				
	Hooklift shall have passive integral slide through body locks to secure the container/body latch plates to the hooklift in dump and transport positions; to accommodate different length bodies and to allow for weight distribution changes while remaining in the body locks when in the transport or in dump cycle				
8	Container/Body Subframe				
	The A-frame of the container/body shall be constructed to allow the hooklift operator to approach and load the container/body on the truck chassis frame from an angle				

	Minimum Specification	Does Not Meet Spec	Meets Spec	Exceeds Spec	Comments
	The skid-mounted container/body shall have integral slide through latch plates to secure body to hooklift in dump and transport positions, and to accommodate different length bodies or weight distribution changes while remaining in the body locks				
	Slide through latch plates to be a minimum of 24" in length to allow the container/body to slide forward and back horizontally a minimum of 14" while remaining fully engaged in the hoist body locks				
9	Warranty				
	The complete mechanism, including hydraulics, will be factory warranted free of defects in material and workmanship for a period of forty-eight (48) months on Parts, and twelve (12) months on Labor from the date of installation				
10	Origin of Manufacture				
	Hooklift to be designed and manufactured in the U.S.A.				

Pricing	Quantity	Unit Price	Extended Price
Single Axle Chassis with Swaploader SL 2418 Hook Lift System per the specifications	4	\$	\$

Truck Manufacturer: _____ Model: _____ Model Year: _____

Plow Manufacturer: _____ Model: _____ Model Year: _____

Spreader Manufacturer: _____ Model: _____ Model Year: _____

Pre-Wet System Manufacturer: _____ Model: _____ Model Year: _____

Swaploader Provider: _____

Is Swaploader dealer authorized by the manufacturer to sell, warrant, and service equipment as bid? Yes No

Warranty Information: _____

An approved purchase order will be the document that authorized an order to be placed.

Estimated lead time for delivery upon receipt of purchase order: _____ calendar days

Dealer Name: _____

NOTE: All bids MUST be submitted by a licensed vehicle dealer in the State of Iowa

Dealer Representative Signature: _____ Date: _____

DELIVERY ADDRESS:

Joy Huber
City of Cedar Rapids Fleet Services Division
500 15th Avenue SW
Cedar Rapids, IA 52404

BILLING ADDRESS:

Finance Department – Accounts Payable
City of Cedar Rapids
101 First Street SE, PO Box 2148
Cedar Rapids, IA 52406-2148