



**Purchasing Department
Finance Group**

July 26, 2010

INVITATION TO BID

The City of Norwalk is soliciting bids for two (2) PLOW TRUCKS (2011 Mack GU712, GVW 45,120). Your firm has expressed interest in providing these services. Below is an outline of some of the requirements that apply to this project.

PROJECT #	2974	
DEADLINE	2:00 PM	August 17, 2010
PROJECT TITLE	PLOW TRUCK (2011 Mack GU712, GVW 45,120)	
PROJECT SITE	Public Works Center, 15 South Smith Street, Norwalk, CT.	

BID DOCUMENTS are available upon receipt of this invitation over the Internet at <http://www.bid.ci.norwalk.ct.us>. Adobe Acrobat reader is required to view this document. If you do not have this software you may download it for free from Adobe. A link to the Adobe site is provided on the Internet bid page.

All questions must be directed, in writing, to David Carroll, Purchasing Officer, via e-mail, dcarroll@norwalkct.org. The deadline for submission of questions is 2:00 pm, August 10, 2010.

Contact Joel Grant, Fleet Manager, at 203-854-3220 to arrange a date to view the trade-in equipment, or gain further access to the Public Works Center.

Businesses, without fax or Internet access equipment, may contact the Purchasing Department at 203-854-7712 for any RFP information. Our fax number is 203-854-7817.

If, after review of the RFP documents, your firm is interested in performing the services specified, provide the information requested, sign and return the complete document, along with your detailed proposal, to the City of Norwalk Purchasing Department by the due date.

Yours truly,

David Carroll
Purchasing Officer

SECTION 1 _ RESPONSE FORMS

SPECIAL NOTES ON RESPONDING:

ADDENDA information is available over the Internet at <http://www.bid.ci.norwalk.ct.us/> <http://www.bid.ci.norwalk.ct.us/html/add.htm> Adobe Acrobat reader is required to view this document. If you do not have this software you may download it for free from Adobe. A link to the Adobe site is provided at the bottom of the Internet bid page. This service is also available via FAX. Dial 203-854-7897 from any phone to access the Purchasing Department's Express Request Line. Request document #1001. We strongly suggest that you check for any addenda a minimum of forty-eight (48) hours in advance of the bid deadline.

SUMMARIES will be available any time after 5:00 PM on the day of the bid opening over the Internet at <http://www.bid.ci.norwalk.ct.us/html/sum.htm> . This service is also available via FAX. Dial 203-854-7897 from any phone to access the Purchasing Department's Express Request Line. The document number to request will be the same as the project number indicated in the invitation to bid. Bid results will not be provided over the phone.

AWARD NOTIFICATION will be issued by mail.

BUSINESSES WITHOUT FAX EQUIPMENT or Internet access may contact the Purchasing Department at 203-854-7712 for this information.

BID RESPONSES are to be delivered to:

City of Norwalk Purchasing Department
125 East Avenue
P.O. Box 5125
Norwalk, CT 06856-5125

See section 3 for information on delivering bids by fax.

Submit three (3) copies of your bid (clearly mark original copy)

1.1 PRICING SHEET #2974

Vendor Name:		
Address:		
Phone:	Fax: _	Email:
Manager:		Fed ID#:

The undersigned hereby declares that he/she or they are thoroughly familiar with the specifications, the various sites, the City's requirements, and the objectives for each element of the project item or service and understand that in signing this proposal all right to plead any misunderstanding regarding the same is waived.

The undersigned further understands and agrees that he will furnish and provide all the necessary material, machinery, implements, tools, labor, services, and other items of whatever nature, and to do and perform all the work necessary under the aforesaid conditions, to carry out the contract and to accept in full compensation therefore the amount of the contract as agreed to by the Contractor and the City.

PLOW TRUCK (2011 Mack GU712, GVW 45,120)

Qty	Year	Manufacturer/Make	Model	Unit Cost	Extended Cost
2				\$	\$

Warranties:

TYPE	Length of warranty	Meets required warranty (circle one) (if no, explain)	
		yes	no
Cab and chassis	12 Months Towing Chassis Related Failures	yes	no
Engine	5 Years 500,000 miles 100% Parts and Labor	yes	no
Transmission	5 Years 100% Parts and Labor	yes	no
Rear Axles	3 Years /300,000 miles to 100% Parts and Labor	yes	no

Delivery: _____ calendar days after receipt of order.

DEVIATIONS FROM SPECIFICATIONS: Any deviation from these specifications must be documented and submitted with your proposal in detail on a separate form. If deviations are not documented completely, the bidder may be disqualified from consideration for an award.

Submitted by:

Print Name of Authorized Agent of Company	
Signature of Authorized Agent of Company	
Date	

The above signatory acknowledges receipt of the following addenda issued during the bidding period and understands that they are a part of the bidding documents (if applicable):

Addendum #1, Dated _		Addendum #2, Dated _	
Addendum #3, Dated _		Addendum #4, Dated _	

1.2 BIDDER'S QUALIFICATIONS

If a qualification statement is not on file with Purchasing, or is over one year old, please answer the following questions. Attach a financial statement or other supportive documentation.

1. Number of years in business - _____
2. Number of personnel employed Part-time _ _____, Full _ _____,

3. List six contracts of this type/size your firm has completed within the last three years:

Project	Date	Contact Person	Phone No.

SERVICE:

4. Location of service center _ _____
5. Size of service center (sq. ft.) _ _____
6. Dollar value of parts relating to this bid in inventory \$ _____
7. Number of full time mechanics employed, qualified to handle this equipment: _____

Attach any additional information that demonstrates your qualification for this work including appropriate certifications.

Submit three (3) copies of your bid (clearly mark original copy)

SECTION 2 - PROJECT SPECIFICATIONS

The City of Norwalk’s Department of Public Works intends to purchase two (2) - **2011 Mack GU712, GVW 45,120** - during the 2011 Fiscal Year. The awarded firm must deliver the vehicles complete with cab, chassis, body, and plow as detailed in the specifications below.

2.1 SPECIFICATIONS:

1. Characteristics

The truck bid must be of the latest model and satisfactory for general highway maintenance work. The frame and suspension must be designed and reinforced for the installation and operation of a heavy duty reversible plow blade hydraulic plow ,and all season pump and sander body.

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
<u>2011 Model Year Mack GU712</u>			
<u>GVW 47,560</u>			
<u>A. Wheelbase , Cab to Axle Dimensions</u>			
Wheelbase shall be approximately 197 and no Longer than is needed to accommodate body Specified.	_____	_____	
Cab to Axle 96-100” Useable	_____	_____	
Axle to Frame 56”	_____	_____	
<u>B. Chassis</u>			
Frame Rails 11.811” x 3.54 x .44 Steel combined rating with inside channel reinforcement.	_____	_____	
Section Modulus 32.7cu in/RBM 3,580,000in per rail.	_____	_____	
120,000 PSI Steel Huck bolted construction			
Front bumper to the end of frame rail.	_____	_____	
20” Front integral frame rail extension parent frame			
No bolt- ons.	_____	_____	

Engine must be Certified and Comply with 2010 (EPA) Federal Emission Standards. The combined use of Selective Catalytic Reduction (SCR), Exhaust Fluid (DEF), Diesel Particulate Filter (DPF). NOx Level 0.2g/bph-hr. There is NO Exception to this item.

C. Engine-Diesel

2010 Federal Emission compliant	_____	_____
405 peak horse power .1480 lb.f.t Max torque	_____	_____
Inline Six (6) Cylinder	_____	_____
11 liter Minimum	_____	_____

D. Engine Components

High pressure unit injection system	_____	_____
2000 bar pressure capability for fuel economy	_____	_____
Single overhead Cam with roller followers 4 valve Per cylinder.	_____	_____
Hand primer pump	_____	_____
Dual Inside/Outside air with Cab Control	_____	_____
Borg Warner On/Off Engine Fan Control	_____	_____
Electronic modules to monitor fuel timing , coolant Temperature , coolant level , and oil pressure	_____	_____
Single Poly Belt	_____	_____
Spin-on Fuel , Water and Dual (Two) Full flow Oil filters	_____	_____
Spin-on coolant filter	_____	_____
Single variable Geometry Turbo Charger	_____	_____
Programmable Governor	_____	_____
Diesel Particulate Filter vertical right hand side Under passenger side of cab.	_____	_____
Exhaust after treatment system diesel particulate Filter ceramic catalyzed	_____	_____
DPF regeneration control fully auto in motion Manual stationary, manual inhibit	_____	_____
120 Volt 145 Amp Alternator	_____	_____
Batteries (3) 12 Volt M/F 1000/3000 CCA	_____	_____
Engine shutdown system shall be compatible with Engine specified with manual override , warning, Lights and buzzer.	_____	_____
Engine Brake Compression 400 hp brake power (Exhaust type Engine Brakes will not be accepted)	_____	_____
120 Volt engine block heater with recessed chrome mounted plug under drivers side door	_____	_____
Air cleaner restriction gauge dash mounted	_____	_____
Racor heated fuel water separator 100FH	_____	_____

	<u>Comply</u>	
<u>Engine Continued:</u>	<u>Yes</u>	<u>NO</u>
Silicone hoses radiator and heater	_____	_____
Maximum available cooling system compatible with engine specified	_____	_____
Gear driven air compressor 18.7 cfm	_____	_____
-40 degrees coolant protection	_____	_____
Engine shutdown system to reduce power as condition worsens , alerts driver through yellow then red warning lights	_____	_____
Engine pre heater	_____	_____
Tether device , furnish cap retainer for oil fill and Radiator overflow tank ,battery box.	_____	_____
12 Volt Starter	_____	_____

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
<u>E.</u> <u>Transmission and Dive-lines</u>			
Transmission Automatic 5 Speed	_____	_____	
Allison 4500 RDS with Oil Cooler and internal oil Filter	_____	_____	
Dash Mounted Shift Control	_____	_____	
Synthetic Fluid	_____	_____	
Drive-line Main 1810HD with coated splines	_____	_____	
<u>F.</u> <u>Frame Equipment</u>			
Bumper Steel sweptback steel channel	_____	_____	
Crossmember Steel I Beam behind cab and Intermediate	_____	_____	
Crossmember –behind rear axle	_____	_____	
Parent Front Frame Extension 20” parent frame For snow plow mount	_____	_____	
Towing service hooks	_____	_____	
Fuel Tank LH 66 gallons steel with grated step	_____	_____	
Rust preventative procedures prior to Assembly	_____	_____	

	<u>Yes</u>	<u>No</u>
<u>G. Front Axle Equipment</u>		
Front Axle 18,000lbs	_____	_____
Front Springs Multi-leaf 18,000lbs.	_____	_____
Front Shocks	_____	_____
Front Wheels 10 Hole Hub Piloted	_____	_____
Front Tires 315/80R22.5 20 Ply G287MSA	_____	_____
Brakes Front s-cam 16.5 x 5	_____	_____
Hubs Ferrous	_____	_____
Brake drums cast outboard mounted	_____	_____
Front Dust shields	_____	_____
Sealed oil seals M/F	_____	_____
Slack Adjusters automatic	_____	_____
Power Steering Sheppard SD1100	_____	_____
<u>H. Single Rear Axle Equipment</u>		
Rear Axle 30,000 lbs RS-30-180.	_____	_____
Rear Springs 30,000 lbs.	_____	_____
Axle Ratio 5.32	_____	_____
Wheels 10 Hole Hub Piloted	_____	_____
Brakes "S"Cam 16.5 x 7	_____	_____
Brake Drums Rear Cast	_____	_____
Dust Shields	_____	_____
Differential Lock Out Dash Mounted Switch	_____	_____
<u>Rear Axle Continued</u>		
Auto Slack Adjusters	_____	_____
Spring Brake Chambers MGM Model TR-T	_____	_____
Chicago Rawhide Oil Seals	_____	_____
Rear Tires 12:00R22.5 16 Ply Traction G124	_____	_____
Spring Chambers 36/36	_____	_____
<u>I. Air Brakes</u>		
Air Lines Extruded Nylon Tubing	_____	_____
Air Brake System Dual	_____	_____
Benidix AD-9 Air dryer	_____	_____
Air control valves vendor bendix switches and Valves where possible	_____	_____
Anti-lock brake system with traction control	_____	_____
Automatic Heated drain valves	_____	_____
Hand control valve rear axle.	_____	_____
Air tanks mounted forward of Fuel Tanks and Under cab.	_____	_____
Manual Drain Valve with lanyard control	_____	_____
Plug Only Kole Herse Model #N-1235	_____	_____

J. Electrical

Back-up Alarm Constant Audible	_____	_____
Steel Battery Box / Molded Plastic Cover	_____	_____
Battery disconnect with rotary handle near battery Box	_____	_____
Electric Circuit protection package all circuits fused and breaker protected	_____	_____
Battery Box left hand frame mounted forward of Fuel Tank under Cab	_____	_____
Jump Start Connections Kalas Terminals	_____	_____
Rear Lighting LED type	_____	_____
Cab Identification Lights LED type	_____	_____
Signal Flasher Transistorized Federal Mogul 250	_____	_____
Wire Harness with cab floor pass through rubber boot	_____	_____
Electrical connections water proof protective coating	_____	_____
Dash Mounted body hoist up with indicator light	_____	_____
Six (6) Aux. Dash mounted switches for snow plow Package . body lights , strobes, spinner.	_____	_____
Work Lights LED RH/LH top of steps on both sides of truck	_____	_____

K. Cab Conventional BBC 116"

Heavy Duty welded Steel Cab	_____	_____
Air restriction dash mounted	_____	_____
Arm rest pads driver and passenger doors	_____	_____
Ash Tray	_____	_____
Cab mounting dual air bag suspension	_____	_____
Severe Duty cab mountings and brackets	_____	_____
Custom interior to include padded doors , headliner and rear panel.(No plastic or paper material type panels	_____	_____
Cab to be Factory rust proofed	_____	_____
Overhead storage compartments	_____	_____
4" Fender Extensions	_____	_____
Dual Hood Air Intake Brite Finish	_____	_____
Rear Storage pouch	_____	_____
Brite Finish Steel Stationary Radiator Mounted Front Grill	_____	_____
Exterior Sun Visor	_____	_____
Steel Radiator Guard/Hood Must tilt without tilting Grill	_____	_____
Dual Air Horns with covers	_____	_____
Dual City Horns	_____	_____
Two speed wipers with intermittent feature	_____	_____
Factory Installed <u>Heated</u> Windshield	_____	_____

Cab Continued:

Yes

No

Cigar Lighter	_____	_____
Heater and Air conditioner	_____	_____
Tinted Glass	_____	_____
West Coast Mirrors LH & RH Heated	_____	_____
Convex Heated	_____	_____
AM/FM CD Player	_____	_____
Infinite adjustable steering column Tilt / Telescopic	_____	_____
Air suspension Drivers Seat Hi Back 915 with	_____	_____
Air Lumbar	_____	_____
Single Passenger Non Suspension w/Tool Box	_____	_____
CB Posts	_____	_____
Automatic Radio shut off when transmission is	_____	_____
Shifted in reverse.	_____	_____
Seat Covering Vinyl	_____	_____
Replaceable Filter Cab Filtration System	_____	_____
Automatic Hood Latch when hood is opened	_____	_____
Rear Window 48"x19" with Passenger Door	_____	_____
Visibility window 16 3/8 x 9 3/4	_____	_____
Aux. pneumatic air line for cab cleanout	_____	_____
Roof Mounted three way roof vent	_____	_____
5lb. fire ext. and Tri angle kit mounted in cab	_____	_____
Gauge Cluster Exhaust Pyrometer , Transmission	_____	_____
Gauges , Engine Oil.	_____	_____
(2) 12 Volt Auxiliary Power Outlets Dash Mounted	_____	_____
(4) Four Overhead Dome Lights	_____	_____
Power Window Control LH/RH Side	_____	_____
Sun Visors LH/RH sides	_____	_____
Suspended Brake and Accelerator Pedal	_____	_____
Full Warning Dash Lamp Display System Central	_____	_____
High mounted LCD. 8 standard gauges and 24	_____	_____
Indicator lamps	_____	_____
Maintenance due indicator , Engine Hour, Ambient	_____	_____
Temp. and Sweet Spot indicator.	_____	_____
Plow Light Connectors mounted front of Hood	_____	_____
Keyed Alike Doors and Ignition All Chassis	_____	_____
<u>L. Paint</u>		
Cab Exterior-Single Color –Shamrock Green	_____	_____
N6694	_____	_____
Chassis Running Gear Black	_____	_____
Rims White	_____	_____

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
<u>Additional Equipment</u> Parts Book and Service Manual For Chassis, Body, and Equipment - - One (1) set			

M. Warranty _____

12 Months Towing Chassis Related Failures

Transmission 5 Years 100% Parts and Labor

Rear Axle: 3 Years /300,000 miles to 100% Parts and Labor

Bearings, Bearing Covers , Bolts and Nuts , Bull Gear ,
Carrier Housing , Mating Gear Set , Thrust Washers ,
Inter-axle Driveshaft , Power Divider and Pinion Housing
Power Divider Cam , Wedges and Shift Fork , Spacers and
Shims.

Yes No Comments

Engine: 5 Years 500,000 miles 100% parts and Labor

Air Compressor , Compressor Drive Gear and Mounting
Bolts. Bearings and all Main Rods, Belt Drive Pulleys ,
At Crankshaft , Belt Drive System Idler Pulley ,Belt Tensioners
Block Heater , Block Plugs , Block Stiffner Plate , Breather Tube
Camshaft ,Camshaft Caps and Bolts,Camshaft Bearings Cap Attachments
Camshaft Bearing Saddle, Camshaft Bearings, Connecting Rod and Cap
Screws Forging , Connecting Rod Bushings , Coolant Duct Cover
Coolant Pump Base Plate , Drive Pulley , Impeller Assembly ,
Coolant Pump Housing , Crankshaft Forging , Crankshaft front
And Rear Seals,Crankshaft Hub , Cylinder Block Housing , Cylinder
Head Capscrews , Cylinder Head Castings , Cylinder Head Core Plugs,
Cylinder Head Gasket , Cylinder Sleeves , EGR Control Valve Heat
Shield , EGR Cooler Heat Sheild , EGR Cooling Mounting Bracket,
EGR Piping Clamps and Gaskets, Electronic Unit Injectors , Electronic
Unit O Rings , Electronic Injectors and Nozzles ,Electronic Injector
Sleeves, Engine Brake , Engine front Mounting Bracket , Engine Gears
Engine lifting Eye Bracket , Engine Rear Mounting Bracket , Exhaust
Manifold Castings , Exhaust manifold Gaskets, Rings ,Stugs , Wraps,
Flex Plate , Flywheel , Flywheel Housing , Fly wheel Ring Gear ,
Fuel Filter Housing , Fuel Pressure Regulator , Fuel Supply Pump,
Gaskets , Hoses and Fittings , Intake Manifold Gasket, Main
Bearings and Bolts, Oil Cooler Core and Piping
Oil cooler housing , oil fill tube, oil filter valve housing , Oil pan,
Oil Pressure relieve valve , Oil Pump , Oil Pump Drive , Oil Pump
Pick up tubes , Piston Rings ,Liners , Snap Rings , Power steering
Pump , Pre Heater ,Rocker Arm Assembly , Rocker Arm Leaf Springs
Rocker Arms ,Shafts and Attaching Screws , Seals and O Rings , Sensor
Egine Oil Level ,Sensor Engine , Sensor Water in Fuel. Starter , Starter
Heat Shield , Thermostat Housing , Timing Gear ,TURBO CHARGER ,
Turbo Charger and VGT , Turbo Charge Coolant Lines , Turbo Charger
Oil Drain and Feed , Turbocharger .VGT Actuator Coolant Lines , Valve
Cover and Valve Heat Shielf , Valve Train Components , Valves , Springs
Keepers , Guides , Rotators , Seats , Valve Yokes Bridge and Yoke Pins ,
Vibration Dampener. Exhaust After Treatment to include After Treatment
Hydrocarbon injectors , shut off valve ,air check valve ,air solenoid valve
Atomization Block , Cold Junction Box ,Control Module , Diesel Particulate
Filter , Differential Pressure Sensor Discharge Recirculation Valve , Fuel
Pump , Ignition Coil , DPF Injectors for FES , Down Stream DPF Temp.
Sensor , Internal Thermal Regen Temp. Sensor , Post Thermal Regen Temp.
Sensor , Pre Treatment Senor , NOX02 Sensor. Emission EGR :Engine
Electronic Control Unit , EGR Valve cooler and Mixer , EGR Piping ,
EGR Wiring , EGR Sensors Air Humidity , air inlet , boost pressure ,
EGR mass flow ,EGR Temp. , Engine speed Crankshaft , Turbo Speed.

N. Radio and GPS/AVL

The following radio and GPS equipment will be purchased after-market and installed by current, awarded City vendors. The awarded Mack contractor will be instructed by City of Norwalk representatives where and when the radios & GPS systems are to be installed.

The City has supplied the following radio and GPS specification as a courtesy to interested Mack suppliers in order to accommodate any variation and/or preparation for the after-market supply and installation of the equipment.

Please contact this office with any question relating to this section.

QTY	DESCRIPTION
1	AAM25DKC9AA1_N CDM750 42-50 4 CHANNEL
1	PROGRAM AND TEST
1	HKN9327A CABLE, IGNITION 16 PIN MOBILE
1	G382 HEAVY DUTY MIC
1	RAB4014 RUGGED DUTY ANTENNA – 42-50 MHZ
1	0180351A98 ROOF MOUNT, MINI UHF, 17 FT CABLE
1	INSTALLATION INTO NEW HEAVY DUTY VEHICLE

GPS/AVL Unit Model # G56224UJ22 Antenna and ancillary hardware Cirrus controller connection.

Unit must be installed and operational to the City of Norwalk specification.

BODY

Combination SS Dump Body/Material Spreader and Snow Plow Hitch Specifications

These are minimum detailed specification to describe a snow removal package to be installed on the towns 37,000 GVWR, 6 wheel cab and chassis with a 96 inch cab to axle measurement.

All deviations from this specification must be addressed by the prospective bidder in writing and submitted with bid.

Body general description.

Heavy duty body serving as a dump body or transformed to a sand/salt/material spreader by means of a hydraulically tilting floor.

Description	YES	NO
Body – Tenco TCB-10-T-AL-SS-LF	YES	NO
Capacity to be a minimum of 6.11 cubic yards water level without side boards – 304# Stainless Steel Body		
Weight of body including hoist and hardware not to exceed 4860 pounds		
Inside width to be 88 inches		
Inside length to be 120 inches		
Outside width 97 ½ inches		
Side height 27 inches		
Tailgate height 39 inches		
Cab shield 24 inches, 10 gauge 304# Stainless steel, reinforced on both ends, and cut out on wing side to accommodate for a post if necessary		
Front panel to be constructed from 3/16” 304# Stainless steel, reinforced by two full length vertical V shaped outside breaks filled in with 3/16” Stainless plate		
Sides, constructed of 304# Stainless steel, reinforced with two 10 gauge Stainless Steel side posts per side		
Bottom Of sides comes to a 45 degree formed taper		
Top tube is 4” x 3” x 304# Stainless Steel		
Tilt side must be single wall design serving as both outer and inner wall and moving with floor as one. Double wall designs are not acceptable.		
There will be two front and two rear corner posts made of 10 gauge Stainless steel.		
Tailgate	YES	NO
Constructed of 3/16” 304# Stainless steel.		
Six panel design		

Top ears will be made of 3/4" 304# Stainless steel		
Top and bottom pins made of 1 1/4" cold rolled steel		
Top hinge will include greasing zerks		
Latches shall be over center design		
Tailgate will be double acting		
When tailgate is horizontal it will be level with the floor		
Tailgate will be air operated, control will be inside cab of truck		
Floor	YES	NO
Constructed of 3/16" Hardox 400 Steel 180,000 PSI yield strength - <i>No exception.</i>		
Reinforced by two steel flats formed into a honeycomb structure between five 3" Channel Cross Members traversing under the floor.		
Floor hinge, shall be bolt on, for ease of removal, by three blocks held by 4" x 5/8" grade 5 bolts. Welded hinges or piano type are <i>not acceptable.</i>		
Blocks shall be grooved and fitted with grease zerks that are remote mounted to one location for ease of maintenance. All extension hoses to be 2000 psi hydraulic type with swivels fittings.		
Pins shall be three piece, 1 3/4" in diameter and made from hard induction chrome.		
The combination of this floor hinge system and the above mentioned floor and understructure shall eliminate the need for 50/50 flow dividers or equalizing hydraulic systems. Such systems are <i>not acceptable.</i>		
Understructure	YES	NO
Two full length I beams at 25.4 lbs. Per foot		
Three 1/4" flats welded between I beams		
Three square tubes 3" x 3" x 3/16" traverse top of I beams joined at ends by 4" x 3" x 3/16" tube		
A 3" x 1 1/2" x 1/8" steel tube and 1/4" steel flat stock is welded at the front of the I beams		
A 14" x 91" x 3/16" bumper is welded at the back of the I beams		
Longitudinal conveyor	YES	NO
The conveyor is an integral part of body floor and runs longitudinally down the driver's side of the body, discharging in front of the rear wheels. Center conveyor units as well as rear discharge units are not acceptable alternatives.		
Conveyor frame is constructed of 3/16" AR Steel		
Removable conveyor wear plate constructed of 3/16" Hardox 400 Steel 180,000 psi yield strength		
Conveyor cover plate in two sections constructed of 3/16" Hardox 400 Steel 180,000 psi steel reinforced with 2" x 3/16" flats.		
Conveyor cover plates are integral to unit and do not need to be removed from the body.		

Chain maintenance system including access panel in rear apron to allow for removal of chain and slotted doghouse to allow for removal of gearbox.		
Chain and driving mechanism	YES	NO
Self cleaning pintle type chain		
18 ½” overall width		
Bar flights, 3/8”x 1 1/4” spaced every other link.		
All chain links are protected by integral chain guard leaving only bar flights exposed.		
Chain is driven by 25:1 ratio gear box		
Gearbox assembly is installed on discharge end and is bolt on.		
Front sprockets are ductile cast iron grade 60		
Driveshaft is 1 ¼” high resistant stress proof 100,000 psi steel		
Rear sprockets are ductile cast iron grade 30		
Idler shaft is 1” diameter 90,000 psi steel		
Bearings are self aligning and greasable		
Tension of chain is adjusted by use of two grease adjustable actuators.		
Use of threaded rods or rollers for chain tensioning is not acceptable		
Spinner assembly	YES	NO
Spinner shaft is sealed type with motor on top		
Hydraulic motor is 30 cubic inch and is bi-rotational.		
Spinner shaft contains two embedded self-greasing ball bearings.		
Spinner assembly is chassis mounted and is bolt laterally adjustable and removable.		
Urethane spreading disc is 18” diameter; steel discs are not acceptable.		
Ultra light non-adhesive polyethylene chute feeds the spreading disc. Chute is both adjustable and removable. Steel chutes are not acceptable.		
Hoist cylinder	YES	NO
Mailhot CS-90-2 two stage telescopic cylinder.		
Capacity of 20 tons at 2000 psi		
Base of cylinder shall be largest stage. Inverted cylinders are not accepted.		
Cylinder is nitrated using the quench polished quench method. Chrome cylinder are not an acceptable substitute.		
Minimum 2 year warranty against corrosion		
Tilt floor hydraulic cylinders	YES	NO
Two Mailhot double acting cylinders.		
Cylinder size is 3 ½” diameter x 22 ½” stroke		
Combined capacity of 19 tons at 2000 psi.		
Cylinder is nitrated using the quench polished quench method. Chrome cylinder are not an acceptable substitute.		

Minimum 2 year warranty against corrosion		
Cylinder ends contain bushings with grooves and zerks for greasing.		
Pins holding cylinders in place are made from 60,000 psi cold rolled steel.		
Bottom cylinder bracket is cast iron (ASTM A27 GR 65-35 annealed)		
Bottom cylinder bracket must be located on passenger side I beam to provide push from a place of strength.		
Top of cylinder must mount in base of passenger sidewall and have access ports from which cylinder pins may be accessed.		
Safety and accessories	YES	NO
Stainless Steel Ladder, appropriately braced, forgiving style, with self-cleaning steps and grab handle located at left front corner of body.		
Stainless Steel Holder for two chock blocks		
Stainless Steel Shovel holder with 5/16" snapper pin		
Safety leg to hold the body in raised position		
Safety leg to hold the floor in raised position		
Eleven safety stickers		
Center mud flap to protect rear brake chambers		
Four rubber mudflaps		
Owners manual		

Additional body requirements	YES	NO
Bolt on 12" asphalt apron		
Aluminum tool box		
Pintle Hitch with 3/4" tow plate to be 25 ton with D-rings & Glad Hands		
Poly Fenders over rear Wheels to protect Body Understructure		
ALCS HYDRAULIC LOAD COVER VIA CENTRAL HYDS		

Hydraulic system	YES	NO
The system is to be furnished and completely installed to power and control all hydraulic requirements satisfactorily, both independently and collectively.		
80CC Minimum Variable Displacement Pump- directly mounted to PTO.		
Electric shift PTO to be driven by World transmission.		
Five (5) Bank Load Sense Control valves with Airquip test fitting (inlet with relief, plow up and down, left and right, body up, side dump up and down with down pressure relief, & power beyond)		
Cirus MS-216 Plow & Body Controls with Arm-rest mount		
ILO Cable		
Stainless Steel Enclosure for Entire Valve Assembly		
Cirus Spread Smart Ground Speed Orientation system for Controlling Spreader Function – No Exceptions		
IP68 Cable connections – No Exceptions		
Cirus Spread Smart Electric/hydraulic Manifold Block shall be located inside a Stainless Steel Enclosure with the Load Sense Valve Body		
Hydraulic tank, to be mounted behind cab vertically, 37 gallon capacity, with, low oil sender, breather cap, and sight / temp gauge.		
Shut off valves, to be ¼ turn ball shut off valves		
Return filter will be 10 micron, spin on type, with 15-psi relief bypass and conditions indicator gauge.		
Hydraulic manifold, all return lines to be routed into centrally located manifold.		
Hydraulic pipes to deliver and return hydraulic oil from control valve to plow functions to be, integrated, modular, ½” ID, stainless steel pipe, custom bent and mounted in cushion clamps. Not to obstruct normal maintenance items. Extended lengths of hydraulic hose will not be accepted.		
Pressure and suction line to pump appropriate size to meet system requirements. Joined with hydraulic hose at flex point.		
Hydraulic hose may only be utilized at flex points and must have swivel fittings on both ends for ease of replacement if necessary.		

Electrical and lighting	YES	NO
Plow lights will be Truck Lite #80800 mounted on the hood with custom aluminum brackets.		
A Betts completely sealed system with Truck Lite junction box, all terminals coated with silicone dielectric grease.		
Spinner light- Truck Lite		
Load light- Truck Lite		
ICC lighting- Betts with Lexan, heat and shatter resistant lenses		
Back up alarm- audible		
Body up alarm- visual and audible		
Trailer plug- Cole Hersey #1235		
All auxiliary electrical components to be powered by Self contained, circuit breaker protected, electrical distribution system.		

LED Strobe System	YES	NO
Whelen two-wire STROBE /LED Rubber Grommet mount. Dual cabshield LED Strobes. Rear Corner Post to incorporate LED Strobe/ LED Stop-Turn-Tail/ & Reverse. System will not need a power pack. System will be a STROBE, not a flasher.		
Must be powered by up-fitter switches and turn off with the ignition switch, or a Norwalk-approved alternate location.		

Henderson Plow Frame	YES	NO
Shall be manufactured by same as the snow plow manufacturer.		
Nose piece of Plow frame shall extend out for Level-lift of plow		
Frame attachment shall be manufactured in such a way as to: allow the hood of a chassis fitted with a tilt engine cowl and stationary grill work to tilt forward over the upper portion of such attachment		
Side plates ½” thick, reinforced and bolted as far back on the truck frame as possible.		
Top cross members and vertical risers shall be constructed of 4”x 3”x ½” angle.		
Nose piece must be adjustable extending out over pivot pin on Plow – NO EXCEPTION		
Bottom member is to be of 15”x 4-1/2”x ½” C- Channel, inter laced with vertical members. Two (2) sets of Dual push centers- 30.5” & 21” OC with three (3) heights. Cylinder base mounting bracket will be mounted to this member.		
Lift yolk to be constructed of ½” steel sides to form a frame, 1-1/8” tube for pivot and ¼” plate for top. Yolk to pivot on a 1” diameter full width bolt with castle nut and cotter pin.		
Cylinder to be double acting, 4” bore x 10” stroke.		

Plow- Henderson Model RSP-11-36-TE		
11’ Length		
36” Height		
10 Gauge Steel Construction Moldboard with Integral Shield		
Mailbox cut-out for Plow		
Torsion-Spring trip		
Cable Shieve Angle System		
3” X 2” Nitrate-treated Cylinders with Cushion Relief Valve		
Swivel Bar with 30.5” Push Centers		
Parking Jack		
Wrap-around Curb Shoes per side		
Rubber Flap across Top of Plow		

Paint	YES	NO
All Non Stainless body parts requiring paint shall be sand blasted, primed, and painted		
All spot painting shall be properly prepared and primed before the finish coat is applied.		
Two-Part Rust Prohibitive (Black) Paint Shall be applied on the Body understructure		

Delivered units must include anything necessary but not specifically mentioned to have a complete and operational unit.

SECTION 3 - GENERAL INFORMATION

NOTE: SECTION 3 - GENERAL INFORMATION contains the City's Standard Terms and Conditions. You are responsible for obtaining a copy prior to bidding. If you do not have a revision dated 062209 or later on file you may obtain a copy over the Internet at <http://www.bid.ci.norwalk.ct.us/>, <http://www.bid.ci.norwalk.ct.us/html/terms.htm> . Adobe Acrobat reader is required to view this document. If you do not have this software you may down load it for free from Adobe. A link to the Adobe site is provided. Please request document number 1002.