THE CHARLO REGIONAL AIRPORT AUTHORITY
TENDER
FOR THE SUPPLY OF (1) SNOW PLOW, MATERIAL SPREADER TRUCK

The Charlo Regional Airport Authority Snow Plow Material Spreader Truck Tender has been made possible through a financial assistance contribution from
The Government of Canada under the Airports Capital Assistance Program (ACAP)

1. Scope of Work

The Charlo Regional Airport Authority (referred to as "CRAA ") will accept tenders for the supply of one (1) new Airport Snow Plow, Material Spreader truck as per the specifications contained herein.

To receive consideration, tenders must be submitted on the tender forms supplied and, in an envelope, plainly marked "Airport Tender Snow Plow, Material Spreader Truck".

The lowest or any tender not necessarily accepted.

2. Delivery and Opening of Tenders

One (1) original and two (2) copies of tenders sealed in an envelope, plainly marked "Airport Tender Snow Plow, Material Spreader Truck"**,** will be received by: The Charlo Regional Airport Authority's CEO, Stephanie Clark.

Charlo Regional Airport
291 Morris Street, Unit 101,
Charlo, New Brunswick E8E 2N1

That is, until 11:00 a.m. and no later than 11:00 a.m., local time, as shown on the official bid receiving clock, on Monday, August 27th.

A public tender opening will take place at 12:00 p.m., on Monday, August 27th in the Airport boardroom located on the main level of the Airport Terminal Building at 291, Morris Street.

This tender shall remain open for acceptance for a period of 30 days.

3. Disqualification of Tenders

Under no circumstances will tenders be considered which:

a. are received after 11:00 a.m. on the advertised closing date for tenders.

4. Withdrawal or Qualifying of Tenders

A tenderer who has already submitted a tender may submit a further tender at any time up to the Official closing time. The last tender received shall supersede and invalidate all tenders previously submitted by the tenderer for this tender.

5. Informal or Unbalanced Tenders

Tenders which are incomplete, conditional, illegible, or obscure, or that contain additions not called for, reservations, erasures, alternations or irregularities of any kind may be rejected as informal.

Tenders that contain prices which appear to be so unbalanced as likely to affect adversely the interests of the CRAA may be rejected.

Wherever in a tender the amount tendered for an item does not agree with the extension of the estimated quantity and the tendered unit price, the unit price shall govern and the amount and the Total Tender Price shall be corrected accordingly.

The CRAA reserves the right to waive formalities at its discretion.

Tenderers who have submitted tenders that have been rejected by the CRAA because of informalities will normally be notified of the reasons for the rejection within ten (10) days after the closing date of tenders.

6. Tender

Each tender shall include a completed Form of Tender as required herein. The complete written tender documents (One (1) original and two (2) copies) must be submitted as a tender and the Form of Tender must not be separated nor removed from the other documents therewith. The tenderer shall give the total tender price in figures and shall fill in all blank spaces for unit prices, item prices, lump sums, time for completion and other information in the Form of Tender and include a detailed itemized quote with the bid submission.

7. Acceptance or Rejection of Tenders

The Charlo Regional Airport Authority reserves the right to reject any or all tenders in the best interest of the Airport Authority. The lowest or any tender will not necessarily be accepted.

8. Material

All material provided is to be new and conform to the specifications herein.

9. Terms of Payment

Upon receipt and acceptance payment will be made within 60 days of receipt of the invoice.

10. Pricing

All bids must be in Canadian funds FOB Charlo Airport taxes shown as extra.

11. Evaluation

The following factors will be taken into consideration in the evaluation of the Tender:

a. Specifications
b. Delivery Date
c. Proven Ability to provide support, maintenance and parts.
d. Green or Environment Friendly technology – Bidders are to list all options available with descriptive literature and pricing (use a separate sheet if necessary)

12. Funding

Any contract issued as a result of this tender is conditional upon the availability of funds as dictated in the 2018-2019 Government of Canada Airport Capital Assistance Program (ACAP).

13. Delivery

State earliest date for delivery.

14. Equivalent Substitute

Products equivalent in form, fit, function and quality will be considered only if the Bidder: (1) designates the trade reference of the substitutes and the name of the manufacturer, (2) strikes out the trade reference specified and the words "or equal", and (3) provides complete specifications and descriptive literature for the substitutes. The Bidder warrants that proposed equivalent substitutes will be fully interchangeable with the trade reference specified.

15. Omission

The Charlo Regional Airport Authority reserves the right in its sole discretion to accept or reject all or part of any bid which is non-compliant with the requirements of this invitation.

16. Influence

No person, company, corporation or organization shall attempt in any way, either in private or in public, to influence the outcome of any Charlo Regional Airport Authority purchasing or disposal process.

The bid, quotation or proposal of any person, company, corporation or organization that does attempt to influence the outcome of any purchasing or disposal process will be disqualified, and the person, company, corporation or organization may be subjected to exclusion.

17. Contact

Until this Tender has been awarded, all contact regarding this Tender must be communicated directly through the Airport's Chief Executive Officer only. Please do not contact other staff. If you have any questions or comments, please do not hesitate to email sclark@charloairport.ca

18. Authorization

Name of Firm: _____
Address: _____
Name of Individual: _____
Authorized Signature: _____
Telephone and Fax: _____
Date: _____

GENERAL

1. The specifications contained herein describe in detail the above referred to requirements in specific detail, even to the extent that a specific project, brand or make or manufacturer may be stated.

2. The purpose of this specification is to establish a minimum acceptable quality standard of equipment, product, function or design and bidders must respond accordingly and bid on products or equipment that meet or exceed the minimum specification.

3. The name of the manufacturer, trade name or catalogue number mentioned in this tender is for the sole purpose of designating a minimum standard of quality and type and for no other reason. Such references are not intended to be restrictive. Bids will be considered for any brand or construction, which meets or exceeds the quality of the specifications listed in the respective items.

4. Some variations from this specification may be accepted provided these variations are, of a minor nature and will not adversely affect the performance of the equipment. Any variation to the specifications listed below must be stated in writing and shall be reviewed by the Airport to determine their acceptability. The acceptability and determination of compliance to the specifications herein shall be the sole decision of the Charlo Regional Airport Authority.

5. Where these specifications list only the major significant details of the unit(s) or equipment required, it is the bidders/suppliers responsibility to provide a unit or the equipment fully equipped for its intended use, with compatible components to provide dependable and efficient service and performance.

6. Where minimum or maximum requirements are specified within the various sections of the specifications, the item(s) offered must be within these limits and, unless what is offered meets the intent of the item(s) in the specifications, in the sole judgment of the CRAA, the bid will be rejected as non-compliant.

7. In the event the bidder's response to the item(s) specified is not clear as to compliance with the specifications, or is unanswered or unspecified, CRAA may request clarification from the bidder, and such clarification is to be confirmed in writing. Changes that affect the intent of the specifications or the price(s) bid will not be acceptable.

8. All equipment offered shall be new and a current standard production unit, excepting as modified by the CRAA specifications.

9. Equipment shall be of proven performance. Satisfactory evidence may be requested that the equipment has been satisfactorily operated for not less than one year or one or more seasons as appropriate in an environment in other airports or locations with a similar environment to the Charlo Regional Airport and under comparable operating conditions. Prototype equipment or units, demonstrators or discontinued models will not be considered or accepted.

10. If requested, bidders or potential bidders must be prepared to supply and demonstrate the equipment proposed or offered on short notice.

11. The Airport reserves the right to reject any Tender that offers equipment or products that are not available for demonstration within a reasonable period i.e. five working days, or that have not been demonstrated to the satisfaction of the Airport.

12. The Airport will not be responsible for or assume any costs of equipment or product demonstrations or liabilities resulting there from.

13. It is the intent of the CRAA to award this tender to the lowest responsive bidder. In order to achieve this award, the following criteria may be utilized by the Charlo Regional Airport Authority to evaluate all tenders submitted.

If requested, bidders shall arrange for a demonstration of the product offered within five (5) days of request, at no cost to the Airport.

It is understood the unit offered for evaluation may not exactly match the requirements detailed herein, however, the unit shipped must meet all specification requirements. The unit offered for demonstration shall be delivered to a site designated by the Airport and be available for at least five (5) working days for evaluation. The Airport shall not be liable for any damage or loss to the equipment occurring during the evaluation period except for those items, which are under the care, custody or control of the CRAA.

If requested, bidders shall submit copies of the operator, maintenance and parts manual(s) for the equipment offered for evaluation, within five (5) working days of request, at no cost to the Airport.

Stephanie Clark
Chief Executive Officer
506-684-5507
sclark@charloairport.ca

Price Table	
Total Snow Plow, Material Spreader and Truck Price before taxes delivered to the Charlo Regional Airport ***include itemized quote with bid***	
HST	
Total Price	
Liquid pre-treatment system for material spreader	
One spare carbide scraper blade	

*Please note lowest tender not necessarily accepted.

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
1. Scope			
1.1 Scope Supply one Snow Plow truck as noted in the request for proposal. The requirement is for a 6 cubic Yds. Capacity dry material spreader, 20,909 Kg (46,000 LB) GVWR, 4 X4 Plow truck complete with reversible plow and wing plow. All items noted in sections 1 through 8 of this specification are to be included in the basic configuration.			
2.0 General Requirements			
2.1 Standard Requirements The vehicle supplied under this specification shall be the manufacturer's latest model standard commercial product and shall have demonstrated industry acceptance by having been manufactured and sold in significant numbers to the commercial trade and shall have been proven in service for the application specified, for at least 1 year prior to the request for proposal.			Provide details:
2.2 Overview The vehicle supplied under this specification is to be, a four-wheel drive truck embodying an automatic trans-mission, a diesel engine, and a tilt forward hood. The vehicle supplied is to be complete with all accessories customarily furnished and installed on this type of vehicle, whether specified herein or not, to enable the vehicle to function reliably and efficiently under all conditions of service.			Make: Model:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
2.0 General Requirements: Continued			
2.3 Operating Conditions The vehicle supplied must be capable of operating without failure of components when loaded to the maximum GVWR specified. The vehicle must be capable of satisfactory operation in ambient temperatures down to -40 degrees Celsius.			
2.4 Mandatory Items Items noted in the specification as "shall be, must be, to be, minimum, and maximum are mandatory requirements". No deviations will be accepted for these items.			
2.5 Responses Any responses noted as approximately will be interpreted as "ACTUAL". Any non-completed areas will be interpreted as non-compliance.			
3.0 Regulations and Standards			
3.1 General All standards and specifications referenced herein refer to the latest editions.			
3.2 Highway Traffic Act The vehicle supplied shall comply in all respects with the Highway Traffic Act or regulations of the province in which it is to operate.			
3.3 Canada Motor Vehicle Safety Standards All applicable Canada Motor Vehicle Safety Standards shall be adhered to.			
3.4 Society of Automotive Engineers All notations in this specification indicating SAE refer to the most recent specification in effect by the Society of Automotive Engineers.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
4.0 Delivery			
4.1 Pre-Delivery A pre-delivery service shall be completed by a vehicle manufacturer's dealer located within 100 km of the operating site. The dealer providing the pre-delivery service must provide, upon request, all post delivery services including normal maintenance, warranty, etc.			PDI Dealer: Address:
4.2 Distance The vehicle is to be delivered to the final destination with a maximum of 1,000 km on the odometer. The method of delivery and costs are to be noted in the proposal.			Provide Details:
4.3 Documentation All necessary documentation (origin certificate, weight ticket, or new vehicle information statement, etc.) required for licensing the vehicle for road use, by the issuing provincial authority, shall be provided to the consignee when the unit is delivered.			
4.4 Inspection The prime contractor is responsible to ensure that the vehicle is thoroughly tested, inspected, and that all deviations are corrected prior to delivery. A final inspection shall be completed by the consignee at the time of delivery.			
4.5 Delivery The prime contractor is responsible to provide an in-service training in the Charlo Regional Airport Authority Delivery for both the truck and accessory equipment, Plows and Dry material spreader.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
5.0 Warranty and Manuals			
5.1 Manuals Provide one copy of the service manuals for each truck chassis. Provide one copy of the manufacturer's maintenance and parts manuals for the transmission, engine, rear axle, snow plow and dry material spreader box. All manuals are to be delivered with the truck. Manuals can be provided in an electronic format or a direct link to the manufacturer's website.			
5.2 Warranty period Provide warranty on all components and repair labour from the date the unit is initiated into service.			Provide details of all warranties:
5.3 Warranty claims If dealer requested warranty repairs have not commenced within a 24-hour period, the consignee reserves the right to complete repairs and bill the vehicle manufacturer for the repair parts and labour in accordance with their standard repair time and rate. If equipment is out of service for greater than 48 hours, a replacement vehicle, at our discretion, will be supplied at the supplier's cost.			
5.4 Dealer Specify the dealer responsible for performing any required warranty repairs and provide the name and phone number of the person to be contacted should warranty repairs be required.			Dealer: Contact: Phone:
6.0 Cab and Chassis			
6.1.1 G.V.W.R. The minimum gross vehicle weight rating shall be 20,909 Kg (46,000 LB).			Actual GVWR:
6.2 Chassis Dimensions			
6.2.1 Cab to axle to be a minimum 2133 mm (84 in) to suit a dry material spreader box.			Actual CA:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.0 Cab and Chassis: Continued			
6.2 **Chassis Dimensions:** Continued			
6.2.2 Cab dimensions, Bumper to Back of Cab to be 2794mm to 2900mm (110 in to 114 in).			Actual BBC:
6.2.3 Wheelbase to be 3605mm to 3935mm (142 in to 155 in).			Actual WB:
6.2.4 Mandatory maximum Turning Radius to be 8.5 M (28 Ft) to centerline of front tire as per SAE J695.			Actual TR:
6.3 Engine			
6.3.1 Engine to be a diesel. The engine must have wet sleeve replaceable cylinder liners. (Cummins ism or equivalent).			Engine Make and Model:
6.3.2 The minimum power output to be 350 HP at the manufacturer's recommended maximum RPM per SAE-J1349. The minimum torque to be 1250 Ft-lb at 1200 RPM.			Actual HP: Actual Torque:
6.3.3 Oil filter to be a full flow type, incorporating a replaceable element.			
6.3.4 Provide a full flow, heated, fuel filter/water separator incorporating a replaceable element.			
6.3.5 Provide a two stage inside/outside intake air cleaner complete with in-cab air restriction gauge.			
6.3.6 The radiator is to be a severe duty type. Coolant protection to -40 C to be provided.			
6.3.7 The engine fan is to incorporate a thermostatically controlled fan clutch, if not air to air engine.			Provide Details:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.0 Cab and Chassis: Continued			
6.3 Engine: Continued			
6.3.8 All radiator and heater hoses are to be silicon type. All hose clamps **MUST** be silicon hose. No deviations accepted.			
6.3.9 Provide an engine coolant filter with replaceable cartridges.			
6.3.10 Provide a fast-idle switch capable of maintaining a constant engine speed of 1200 RPM. The fast-idle system must only operate with the transmission in neutral.			
6.4 Transmission			
6.4.1 The vehicle is to incorporate an Allison automatic transmission RDS series. The transmission is to have a minimum of five forward speeds, with 3rd gear hold.			Transmission Make and Model:
6.4.2 Provide an automatic safety device to ensure that the truck engine can only be started in neutral range, and the range selector cannot be inadvertently shifted into reverse.			
6.4.3 Shift control quadrant to be illuminated.			
6.4.4 Provide a transmission oil cooler.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.5 Suspensions			
6.5.1 Both the front and rear springs are to be progressive, heavy duty type. Front rating to be a minimum of 24,000 lbs., rear 23,000 lbs.			Front Rating: Rear Rating:
6.5.2 Shock absorbers to be supplied on the front axle.			Provide Details:
6.6 Drive Line			
6.6.1 Minimum Spicer 1810HD series (or equivalent) drive shaft(s) and universal joints.			Make and Series:
6.7 Frame			
6.7.1 Full depth, heavy duty, reinforced frame having a minimum RBM of 2.8 million in-lbs. at any location. The frame must be reinforced the entire length.			
6.7.2 Provide for the installation of a front mounted PTO pump, driven from the engine crankshaft.			
6.8 Axles			
6.8.1 The front axle to have a minimum capacity of 10,909 Kg (24,000 LB).			Actual:
6.8.2 The front axle is to be set back a minimum of 1016 mm (40”).			Set Back Dimension:
6.8.3 The rear axle to have a minimum capacity of 10,400 Kg (23,000 LB).			Actual:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.0 Cab and Chassis: Continued			
6.8 Axles: Continued			
6.8.4 Axle ratio to be provided to allow for an approximate road speed of 90 KPH.			Axle Ratio Top Speed:
6.8.5 Provide power operated, driver controlled, traction lock rear differential, in forward-rear and rear-rear axle with dash mounted switch and light.			Provide Details:
6.9 Wheels			
6.9.1 Front rims to be 12.25 x 22.5.			Front Rim Size:
6.9.2 Rear dual rims to be 8.25x22.5.			Rear Rim Size:
6.9.3 Both front and rear wheels to be bud style.			
6.9.4 The wheels shall comply with the axle manufacturer's rating for imposed loads and operating conditions.			Front Wheel Rating: Rear Wheel Rating:
6.9.5 Provide one front spare rim fitted **with a front tread type tire** as noted in section 6.10.2 of this specification.			
6.10 Tires			
6.10.1 Rear tires to be 16 ply on/off road, radial type, 11R 22.5 Michelin XDL or Goodyear or equivalent.			Make and Type:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.0 Cab and Chassis: Continued			
6.10 Tires: Continued			
6.10.2 Front tires to be 20 ply on/off road radial type, 425/65R 22.5 Michelin XZY or Goodyear G286 or equivalent.			Make and Type:
6.11 Steering			
6.11.1 Integral power steering with a right-side slave or ram. Tilt steering column.			Provide Details:
6.12 Fuel Tank			
6.12.1 The capacity to be no less than 220 Liters. Left hand side mounted under cab c/w powder coated paint.			Capacity and Location:
6.13 Exhaust			
6.13.1 Vertical exhaust pipe equipped with an elbow. Tail pipe and tail pipe guard frame mounted right side under cab.			
6.14 Brakes			
6.14.1 Full air brakes incorporating the following items a. Minimum 13 CFM compressor, b. Spring applied air release parking brakes, c. Minimum 16.5 x 6 "S cam" front brakes with automatic adjusters, d. Minimum 16.5 x 7 "S cam" rear brakes with automatic adjusters, e. Bendix AD-9, or equivalent, heated air dryer, complete with moisture ejector, f. In dash pressure gauge with low pressure warning light and buzzer.			Provide Details for All:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.0 Cab and Chassis: Continued			
6.14 Brakes: Continued			
6.14.2 Provide full trailer connections, to include air and electrical connections mounted at the end of the frame, including tractor protection valve and 7 pin electrical trailer receptacle.			
6.15 Electrical			
6.15.1 Include batteries having a minimum of 2250 CCA capacity.			
6.15.2 Include a minimum 160-amp 12 V alternator, having a minimum output of 60 amps at engine idle.			Capacity: Type: Idle Amperage:
6.15.3 Provide a back-up alarm having a minimum of 97 dBA as per SAE J-994 type 'C'.			
6.15.4 Provide a warning light and buzzer to indicate all of the following conditions; high coolant temperature and low engine oil pressure.			Provide Details:
6.15.5 Provide an hour meter installed in the instrument panel.			
6.15.6 Provide an engine block heater, minimum size of 1000 watts, complete with bulk head receptacle located beneath the driver's door.			
6.15.7 Manual reset circuit breakers must be provided.			Provide Details:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.0 Cab and Chassis: Continued			
6.15 Electrical: continued			
6.15.8 Provide roof mounted amber strobe beacon Federal Signal Corporation #M1682 P/N 420900-02 meeting airport standards or other manufactures equivalent.			
6.15.9 Provide (1) two-way radio wiring effects and VHF/AM radio with 122.2 and 122.6 frequencies, Model ICOM 1C-A120 or another equivalent for airport use. Provide (1) two-way radio Chanel 1, 418.2125 transmitting. 413.215 receiving Chanel 2, 413.5375			Price: Provide Details:
6.16 Cab			
6.16.1 Fully insulated metal cab and engine cover insulator equipped with maximum capacity fresh air intake heating and defrosting system, with air intake protected from the ingress of rain and snow.			Provide Details:
6.16.2 The cab heating system shall have sufficient capacity to maintain the cab interior at 13 C with an ambient temperature of -40 C.			Provide Details:
6.16.3 Cab access handles to be installed on both right and left-hand sides of the vehicle exterior as well as interior door access handles.			
6.16.4 Provide the heaviest duty, variable speed electric or air wipers. The wipers must be complete with automatic park capability. Wet blade type windshield washers preferred. Snow blades.			Wiper Type: Washer Type:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.0 Cab and Chassis: Continued			
6.16 **Cab:** Continued			
6.16.5 A maximum sound proof insulation package shall be fitted to provide the lowest possible interior sound level. The interior sound level shall not exceed 83 DBA when measured in accordance with SAE J336; the constant speed moving test shall be conducted on bare asphalt with the vehicle moving at maximum governed speed in third gear.			
6.16.6 Hood to be a tilt forward type having both a stationary grill and side access hatches to permit easy access to the engine.			
6.16.7 Provide a driver and passenger sun visor.			
6.16.8 Driver's high back, cloth, air-ride suspension seat. Single passenger seat to be provided.			Type:
6.16.9 Provide power windows with the controls at the driver's side.			
6.16.10 Dual west coast type heated mirrors: minimum 178 X 406 mm (7 X 16 in), with built-in clearance lights. Minimum 8-inch convex mirrors to be supplied on each side"			Provide Details:
6.17 Painting			
6.17.1 The cab and dry material spreader box are to be painted with Epoxy, Polyurethane or Imron type paint or equivalent. Paint color Orange CGSB-1-GP-88, shade 508-101, standard paint color 1-GP-12. Or manufacturers closest equivalent. The frame should be the same as above, but in the color black instead.			Provide Details:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
6.0 Cab and Chassis: Continued			
6.18 Instruction Identification			
6.18.1 Provide permanently installed ISO or English/French instructions, diagrams and warning plates, where required to ensure efficient operation and servicing with maximum safety.			
7.0 Dump Body Spreader Make: Model: Price:			
7.1 General requirement			
7.1.1 Approximate dimensions Overall length: 137" _____ Inside length: 132" _____ Inside width: 88" _____ Side height: 27" _____ Tailgate height and front panel: 39" _____ Capacity (water level): 6 Cu. Yds. _____			Overall length: _____ Inside length: _____ Inside width: _____ Overall width: _____ Side height: _____ Tailgate height and front panel: _____ Capacity: _____ Required truck C.A.: _____
7.1.2 Body Construction - The front panel shall be made of 3/16" 50,000 psi steel, reinforced by 2 brakes formed "V" shapes. - The left-hand side of the body (driver side) shall be made of 3/16" steel, 115,000 psi tensile strength. - The reloading floor, tailgate panel and conveyor covers shall be made of 3/16" steel AR400 180,000 psi min. tensile strength. - The right side of the body shall have a fixed wall plate that provides the required rigidity for dump body use model and will also restrain the personnel entry under the tilting floor. - The stationary right-hand side outer wall shall be made of 10-gauge 50,000 psi steel.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.1 General requirement: Continued			
7.1.2 Body Construction: Continued - The tailgate shall be reinforced by (2) two 5" x 3" minimum section vertical posts and (3) three 7" x 3" top, mid and bottom braces. Horizontal braces shall be of the fall off type. - Tailgate 100% welded; no skip weld will be accepted. - The body sides shall be reinforced vertically by a front and rear corner post of 13" min. cross section, two (2) side posts, and horizontally by a 6" x 3" x 3/16" minimum tubular steel section top capping, along with a slanted self-cleaning rub rail. - Body sides shall be provided with sideboard gussets. - A ladder shall be located on the driver's side with a folding section for easier climbing. - A longitudinal conveyor located on the left-hand side shall feed a material chute and a spinner disc ahead of the truck rear wheels. - The feed chute shall be made of polyethylene and reinforced with extra wide upper steel support. 8" wide minimum. - One safety prop shall be provided to support dump body when servicing. - One safety prop shall be provided to support the reloading floor when servicing.			
7.1.3 Body Understructure Shall be of the stacked type under structure consisting of 3" @ 4,1 lbs./ft. channel cross members welded and gusseted to a 10" @ 20.0 lbs./ft structural channel long members.			
7.1.4 Floor Support Structure - The bottom and side of reloading floor shall be fully supported by "L" shaped 3" x 2" tubular steel sections welded directly to the body floor plate to achieve an 14" average cross member spacing. ** To prevent material hang-ups and corrosion, a honeycomb structure underneath the floor plate will not be accepted.*			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.1 General requirements: Continued			
7.1.5 Floor Hinge Reloading floor shall be easily removable. The open hinge design shall allow for hinge disassembly without pulling out floor hinge pins. Hinge pin shall be 304 stainless steel 1 1/4'' dia. Full length shaft, piano type hinge or a welded hinge type will not be accepted.			
7.1.6 Cab Shield 24" cab protector shall be made of 10-gauge steel.			
7.1.7 Tailgate Latch Mechanism - Tailgate latches shall be adjustable to compensate wear. - The latch mechanism shall be designed with over-center cam locking mechanism to assure positive locking of the tailgate. - The latch mechanism shall be operated by double-acting air cylinder of 3" rod X 8" travel minimum c/w an adjustable clevis yoke. - A booster with less than 5" travel will not be accepted - A pressure protection valve shall be installed on the air tailgate system to insure air pressure priority for the truck air brake system. No other locking system will be accepted.			
7.1.8 Front Mount Hydraulic Hoist 3 sections Mailhot G4 hoist, or approved equivalent			
7.1.9 Reloading Floor Cylinders - The two double acting cylinders must be connected in series and operate in phase at all time without the use of any flow divider or motor. A T-connection between the two cylinders will not be accepted as the cylinders are not connected in series.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.1 General requirement: continued			
7.1.9 Reloading Floor Cylinders: Continued - Also, the (2) reloading floor cylinders must be protected by relief valve set at 1,500 psi upward and 500 psi downward. This valve must be factory mounted on the dump body and plumped at the factory. - Hardened induction chrome reloading floor cylinders shall be covered by a two (2) year warranty against corrosion. - A high temperature rubber wiper (to withstand damage if hauling hot mix) between the reloading floor and headboard shall be provided. Polyethylene scrapers not accepted.			
7.1.10 Conveyor Chain Extra heavy-duty self-cleaning pintle type. - Model: 88KI, *no equivalent such as 667X will be accepted* - Pitch: 2.609" - Total breaking strength: 49,000 lbs.			
7.1.11 Flights - 3/8" x 1 1/4" dimension. - Welded at every two links - The ends shall be bent upwards to allow welding on both sides of the flight.			
7.1.12 Conveyor Shafts - Conveyor drive shaft 1 3/4" minimum - Conveyor driven shaft 1 3/16" minimum			
7.1.13 Drive Sprockets Two sprockets shall be provided on the conveyor drive shaft made of chromed-nickel alloy with a minimum of 7 teeth, with double shoulders to support the conveyor chain links.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.1 General requirement: Continued			
7.1.14 Idler Rollers Two idler roller wheels shall be provided at the other end of the conveyor to reduce wear on the chain and allow the chain to readjust itself. Sprockets provided at both ends of the conveyor are not accepted.			
7.1.15 Bearings Both conveyor shafts shall be mounted on sealed self-aligning ball bearings equipped with grease fittings.			
7.1.16 Speed Reducer - Shall be 25:1 ratio. - Worm gear type with bronze gear			
7.1.17 Conveyor Drive System Conveyor drive assembly (gear box speed reducer, driveshaft, drive sprockets, flange bearings) shall be bolted for easy removable.			
7.1.18 Grease cylinders chain tensioning system - The chain tensioning system shall be located at the front of the unit for easy access near the gear box speed reducer assembly. - Chain tension adjustment to be performed by two grease actuated cylinders - The two cylinders shall be fabricated with stainless steel piston rods and u-cup wiper seals to build high pressure. (O-ring fabrication will not be accepted). - Each cylinder shall be provided with button head grease fitting to prevent maladjustment of chain from a standard grease gun.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.1 General requirement: Continued			
7.1.19 Spinner assembly - The spinner shaft shall be 7/8" min. dia. with 2 sealed ball bearings assembled with a tubular housing. The lower end of the spinner shaft shall be supported by a flange bearing equipped with grease fitting and locking collar. - Spinner disc: 17" dia. min. - The spinner assembly shall be chassis mounted on a tubular support for adjustment in height and width. - Two sets of male and female couplers for quick disconnect of spinner assembly			
7.1.20 Electrical system Shall meet FMVSS108 standards. All electrical systems to be water proof. The wiring shall be of the flexible rubber jacketed type equipped with choked seal and threaded fittings.			
7.1.21 C5520 Spreader Controls			
7.1.22 Safety Decals Safety & operation decals shall be supplied with the unit.			
7.1.23 Spinner deflector Allows adjustment of spreading pattern around the spinner disc.			
7.1.24 Conveyor and spinner lights (2) LED lights be provided to shine on spinner and conveyor			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.1 General requirement: Continued			
7.1.25 Top Screen on the Spreader Body.			
7.1.26 (3) Led lights arrangement in rear post Installed in each rear corner post: - Top: (1) amber strobe light - Center: (1) Red stop, tail turn light - Bottom: (1) White back-up light			
7.1.27 The bidder if requested must be able to provide name and contact information of at least five airports or municipalities who currently own and operate the same make and model of dump body that the bidder is offering in the tender submission.			
7.2 Demonstration			
7.2.1 The bidder will arrange a working demonstration of any unit offered as an approved equivalent at the airport's location prior to the tender closing date.			
Approximative Dimension			
Heavy-duty full trip power reversible plow			
7.2.2 Approximate Dimensions Overall length: 11'_____ Overall height: 42"_____ Clearing path @ 37°: 8'9"_____			Make: _____ Model: _____ Overall length: _____ Overall height: _____ Clearing path @ 37°: _____ Weight: _____

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.3 Moldboard - Moldboard to be break formed (not rolled) to a series of panels to break up the snow load and to add structural strength to plow. - Moldboard to be made of 10 ga. steel. - Overhang: 17" over the cutting edge. - Top of moldboard shall incorporate a 3" formed channel. - No additional tube shall be welded to top of the moldboard as to reduce weight. - Moldboard shall be reinforced with (6) full length 3/8" thick vertical ribs welded to the bottom backer angle and the back of the moldboard. - Each rib must be one piece and at least 3" deep. - Each rib must be of the exact same shape as the moldboard sheet (panel shaped) as to allow maximum contact and support with the moldboard sheet. - The push frame shall connect to the moldboard at (4) points. - The push frame connecting points shall be reinforced on (4) of the vertical ribs using 3/8" steel plates on each side for a total bearing thickness of 1 1/8". - The ribs and top of moldboard must connect using the fork type connection. This must be achieved as the top of the vertical ribs will be inserted in triangular shape pieces welded to the back of the 3" reinforcing channel shape, break formed into the moldboard sheet. - This type of connection is mandatory to reduce top of moldboard weldment failure and for a better distribution of plowing stresses. - Vertical ribs connection to top of moldboard must allow water drainage as the water can run free along the top of the moldboard, through the ribs connection. - A 3" X 3" X ¼" thick steel angle construction shall run the full length of the back of the moldboard and be welded to each of the vertical ribs. - A lifting lug must be welded at the back of the moldboard on the 3" X 3" X ¼" steel angle.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.4 Cutting edge and backer angle - A ½" thick SAE 1090 grade cutting edge with carbide insert shall be bolted to a heavy-duty support angle. Cutting edge shall be bolted with 5/8" x 2 ½" gr. 5 bolts and lock nuts. - This support angle shall be 6" x 4" x 5/8" min. and be drilled to receive 8" or 12" center punched cutting edge. - This support angle shall be further reinforced with 3/8" thick triangular gussets. - (2) moldboard shoes shall be provided under the backer angle.			

7.2.5 Moldboard trip mechanism
- The plow shall be protected during the plowing operation by a full tripping moldboard system.
- The tripping mechanism shall consist of:
- (2) spring loaded adjustable trip arm assemblies
- Arm assemblies shall be pin connected to the reinforced lugs on the moldboard and pin connected to the reinforced lugs on the reversing frame.
- Each arm assembly shall be constructed of (2) ½" thick steel bars and (1) 5/8" thick steel bar enclosed by (1) compression type spring:
  - 5/8 " wire diameter
  - 5 ¼" O.D"
  - 23 ¼" long
- The recoil force of each spring device shall be individually adjustable using (2) threaded rods and bolts system to compensate for wear and cope with various plowing conditions.
- Such adjustment is mandatory and must be performed using regular tools.
- Adjusting trip system requiring special tools provided by the plow manufacturer is not accepted.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.6 Moldboard attack angle adjustment - The (2) spring loaded adjustable trip arm assemblies shall also serve the dual purpose of allowing adjustment of the moldboard attack angle. - Each arm assembly shall be connected to the moldboard on 3/4" thick steel bracket reinforced by a 3/16" thick steel plate welded to the 3" X 3" X ¼" iron angle - These brackets shall allow the following adjustments: 70°, 75° and 80°.			
7.2.7 Drive frame The drive frame assembly shall consist of an "A" Frame and a semi-circle: <u>"A" frame</u> - The "A" frame shall be made with 4" x 2 ½" x ½" steel ship channel @ 13.8 # / ft. The channels and oscillator plate shall be reinforced by a 5/8" thick x 22" long steel plate. - A 1" x 6" x 31 ½" steel oscillator bar support shall be provided. - The hydraulic cylinder pins shall be 1 1/4" min. diameter. - The "A" frame pin shall attach the "A" frame to the semi-circle and serve as a pivoting point for the angling action. - The "A" frame pin shall be machined from a 2" dia. solid shaft and be equipped with a grease fitting threaded into the head. - A welded cap on this pin will not be accepted. - The "A" frame pin pivoting point bearing surface shall be 15/16" thick.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.7 Drive frame: Continued <u>Semi-circle</u> - Shall be made of 4" x 3" x ½" steel angle @ 11.1# /ft. welded and gusseted to a 4" x 4" x ½" @ 21.63 #/ft. structural tubing connected to the moldboard with a minimum of (8) connecting point made of ½" thick steel plates. - The 4" x 3" x ½" steel angle shall be further reinforced with (2) 6" x 4" x 5/8" steel angles. - Each of the (4) moldboard connecting pins shall be 1 ¼" diameter. - (2) 3/8" thick plates shall be welded to the 4" x 4"x ½" structural tubing to allow an easy retrofit of skid shoes or caster wheel assemblies. - An adjustable parking stand shall be provided.			
7.2.8 Oscillator - The drive frame shall be built to allow the moldboard to oscillate plus or minus 10 degrees on each side of its drive points to follow the road contour. - The oscillating device construction shall consist of a stationary section fully welded to the drive frame and coupled to the oscillator plate with a 1 ¼" grade 5 pivoting bolt complete with a lock nut. - Both the stationary and oscillator plate shall be made of 1" thick steel. - The oscillator plate shall be equipped with (2) drive lugs welded and braced to it. - These drive lugs shall be made of 1" thick steel and drilled to adapt 1 ¼" coupling pins. - Drive lugs shall be mounted at 30 ½" centers. - The drive frame shall be set for a pinning height of 19" plus or minus ½" above ground level.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			

7.2.9 Plow angling cylinders
- The plow can be reversed using (2) double acting hydraulic cylinders:
- Cylinder specifications:
  - 9" stroke
  - 3" inside diameter
  - 1 ½" diameter piston rod
- Piston rod to be nitrated and corrosion resistant as per ASTM B-117-94.
- Cylinder ports shall be (2) 90° port adapters SAE 'O' ring 08
- Rod end of cylinders connected to the 4" x4"x ½" structural tubing to be bushing mounted with grease fittings.
- Cylinder base connected to the A-frame shall be 1" thick plate mounted
- A cushion valve set to relieve @ 2,500 psi shall be installed on the plow semi-circle to provide protection to the hydraulic components and plow.
- Cushion valve shall be mounted with quick disconnects for power angling applications.
- Reversing angle shall be allowed up to 37° left and right.			

7.2.10 Lifting device - The plow shall be provided with (2) ½" exact chain strands. - These chains are to be provided with shackles - The (2) chains shall be mounted on a (4) connecting points structural tube that allow the correct attachment of the chains to the plow hitch.			

SPECIFICATION	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
Front plow quick hitch with integrated tilting front wing post system			
7.2.12			Make: _____ Model: _____
7.2.13 Major components The quick hitch with integrated tilting front wing post system shall include the following elements: A) Cheek plates and push plates adapted to the truck frame. B) Stationary female coupler adapter connected to the push plates. C) Hinged male coupling adapter framework. D) Quick coupler system, male section, including a double acting and lock up hydraulic cylinders. E) Inverted "J" shaped and quick coupler plow adapter (female section), which is to be connected to the snow plow drive frame.			
7.2.14 Cheek plates and push plates The cheek plates shall be made of 6" X 4" X 5/8" steel angles adapted and bolted to the truck frame rails. The push plates shall be 5/8" thick min. welded and gusseted to the cheek plates. The length of these plates shall be a minimum of 30".			
7.2.15 Must have (2)18” min high flexible markers mounted on each end of the moldboard and easily replaceable.			
7.2.16 Stationary female male connecting adapter Support structure and mounting to push plates shall consist of:			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.16 Stationary female male connecting adapter: Continued <u>Support structure to push plate:</u> A stationary front support structure shall be made of 1/2" thick material and be welded to the cheek plates to form an integral assembly and to be used as a female adapter for the tilting section of the front hitch. The above stationary front structure shall provide (2) lower pivot points and (2) upper removable locking pins. This female mounting shall be of the double shear clevis type. Each of the (4) points of this female connecting adapter shall be provided with (8) 2 1/2" dia. x 1/2" wall x 1 1/4" deep steel bushings. The minimum distance between the lower pivot points and the upper locking pins shall be 18" min. <u>Male connecting adapter for tilting front post:</u> The male connecting adapter shall consist of a hinged framework made out of (2) 5/8" thick vertical stiffeners each complete with (2) adapter coupling points to fit the stationary female 4-point adapter along with: - a 5" x 5" x 3/8" bottom tubular section. (lower front post support) - a 5" x 3" x 1/4" upper tubular section. (upper front post support)			
7.2.17 Male connecting adapter points The (4) adapter points shall be reinforced by (4) 2 1/4" O.D. x 3/8" wall thickness steel bushings welded to the 5/8" thick vertical stiffeners of the male connecting adapter. <u>Locking pins and pivot point:</u> The (2) lower pivot points along with the (2) upper locking pins shall be at least 1 1/2" diameter C1020 cold rolled steel.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.18 Front plow quick coupler system (male section) The vertical components of the quick coupler shall be made of 4" X 3/4" flat bar and shall perform two functions: - Raise/lower the front plow. - Couple/uncouple the front plow assembly when releasing the lock up cylinder.			
7.2.19 Quick coupler tilting adaptor frame upper rollers (male section) The tilting adapter frame shall be provided with two rollers of 3 3/4" dia. by 1/2" wall thickness and shall be greasable so as to eliminate premature wear between the tilting adapter frame (male) seat and the inverted "J" quick coupler plow adapter. The main hinge pins connecting the upper tilting adapter frame to its stationary bottom section shall be 1 1/2" dia. minimum and each shall be lubricated by (2) grease fittings.			
7.2.20 Inverted "J" shaped quick coupler plow adapter frame (female section) - The female section of the quick coupler plow adapter frame shall be made of 2 inverted "J" shaped steel plates and shall adapt any plow model designed for a standard drive ear spacing of 30 1/2" center to center and shall be mounted to the snow plow drive frame. - It shall enable the operator to disconnect the snow plow assembly without leaving the truck cab. - The adapter frame shall be flame cut from 1" steel plate. - The coupling ears shall be 1" thick minimum. - It shall be provided with grab links for an easy adjustment of the snow plow lifting chains. - The female quick coupler plow adapter frame shall be equipped with 1 1/4" dia. coupling pins.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.21 Protective urethane bumpers Protective urethane bumpers shall be mounted on both sides of the female adapter in order to ease the coupling action and prevent damages to either female quick coupler adapter and/or snow plow drive frame.			
7.2.22 Hydraulics The cylinder and valve ports shall be o'ring type S.A.E. connected to 37 degrees flare J.I.C. adapters. The lift cylinder shall be of the double acting type and meet the following requirements: - Minimum effective stroke: 11" - Bore: 4" - Piston rod diameter: 2" minimum The lock up cylinder shall be of the double acting type: - Minimum effective stroke: 6" - Bore: 1 1/2" - Lock up pin diameter: 3/4"			
7.2.23 Snow plow headlamps Shall be of the LED rectangular type with integral turn signals. <u>Truck bumper</u> The original truck front bumper shall be modified so it can be fitted to the front plow hitch structure during summer operation.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
Wing plow			
7.2.24 Approximate Dimensions Overall width: 144” _____ Intake height: 31” _____ Discharge height: 41” _____ Cutting edge length: 132” _____			Make: _____ Model: _____ Overall width: _____ Intake height: _____ Discharge height: _____ Cutting edge length: _____ Weight: _____
7.2.25 Moldboard - The moldboard skin shall be made of 10 ga. HSLA steel, 50,000 psi yield strength. - The moldboard shall be of the paneled construction type, not rolled, to improve stiffness and ease snow ejection. - The side wing shall be reinforced by a minimum of 5 vertical ribs, 3/8” thick. The ribs shall run the full height of the moldboard. - The top of the moldboard shall be reinforced by formed channel type reinforcement. The junction between the vertical ribs and the top reinforcement shall be of a fork style weldment each providing a minimum contact length of 5". - A ¾’’ dia hot rolled steel rod shall be fully welded at the discharge end of the moldboard for added strength.			
7.2.26 Cutting edge and backer angle - A ½” thick SAE 1090 grade cutting edge with carbide insert shall be bolted to a heavy-duty support angle. - This support angle shall be 6" x 4" x 5/8" min. and be drilled to receive 8” or 12” center punched cutting edge. - This support angle shall be further reinforced with 3/8" thick triangular gussets. - (2) moldboard shoes shall be provided under the backer angle.			

SPECIFICATIONS	CONFROM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.27 Front wing plow coupling configuration The intake height area of the wing plow shall be reinforced by a 1" thick steel plate of 21" X 18" and provided with (2) alternative bolting options spaced by 4" each to allow for proper overlapping with the front plow. The connecting bolt shall have a minimum diameter of 1 1/2" grade 8 type. It shall be mounted with a flat washer and a castle nut locked in position by a 5/16" dia. cutter pin.			
7.2.28 Safety chains The front and rear wing attachment shall be equipped with 3/8'' min. safety chains, an adjustable grab link to protect against a fall or an accidental triggering of the side wing.			
7.2.29 Product liability insurance In order to protect the customer from any claims that might result from an accident due to the failure of the equipment, the bidder shall supply with his bid product liability insurance for a minimum amount of 5 million dollars. In the case of a claim, the customer can call upon the equipment manufacturer to assume responsibility.			
Patrol wing system			
7.2.30 The following specification is intended to define the manufacturing and installation characteristics of a front and rear wing attachments primarily designed for ground level operation. The raising and lowering of the wing shall be achieved by the mean of direct acting cylinders without the use of cables and sheaves. The rear wing attachment shall be designed for ground level snow clearing operation and shall require a minimum rear of the cab mounting space.			Make: _____ Model: _____

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.31 Front post The front post intended for the operation of the front wing slide shall be made of a 7 in. «I» beam at 15.3 lbs. /ft. The front post shall be provided with a properly gusseted adapter flange providing a minimum contact area of 120 sq. in. with six 5/8" dia. grade 5 bolts. The front post mounting must assure that under NO operating condition the right-hand front tire shall come in contact with the levelling wing. The complete front post structure shall be bolted to the front plow harness for ease of seasonal removal and installation.			

7.2.32 Operation of the front slide
- The front wing slide shall be mounted on a 40" X 6" X 3/4" double bevel base plate. It shall further be provided with a trip over mechanism.
- Trip over mechanism shall be torsional spring loaded using a 3/4" minimum wire size and shall assure the return of the wing to its normal working position after it has hit an obstacle.
**N.B.: In no case shall a rubber compression spring be accepted.*
- The operation of the front slide shall be performed by a directly connected double acting hydraulic cylinder, nested inside the front post for better protection.
- The connection between the cylinder and the wing slide shall be achieved by a greaseable offset trunnion.
- Minimum cylinder requirements:
  - Piston diameter: 3"
  - Piston rod diameter: 1 1/2"
  - Minimum stroke: 24"
 	
The above minimum stroke requirement is mandatory to accommodate an emergency R.H. front tire change.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.33 Floating system The front post assembly shall be designed so as to allow free floating of the wing on 4" travel minimum.			
7.2.34 Rear wing attachment Model: _____ <u>Right hand frame rail reinforcement:</u> A 30" long x 3" deep x 5/16" thick formed angle covering the full height of the right-hand frame rail web shall be solidly bolted to the surface of the truck frame, wherever possible existing holes shall be used.			
7.2.35 Rear horizontal crossmember <u>Load transferring cross member:</u> A 6" x 4" x 5/8" thick structural angle beam shall cross over and be attached to each frame rail in order to better distribute the side loading effect resulting from the plowing operation.			
7.2.36 Bolted support structure The 3-point attachment of the 2 wing push arms and raise cylinder shall be flange mounted to the rear wing attachment by the means of 8 grade 5 - 5/8 dia. bolts. The two flanges shall be made of 1/2" thick steel. This is intended to remove any possible protrusion of the 3-point attachment on the right-hand side of the truck when the plow is removed. This feature also allows easier disconnect of wing push arms and cylinder.			
7.2.37 Tubular reinforcement A tubular reinforcement of 2 1/2" diameter shall be provided as an auxiliary support to the wing rear attachment.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.38 Telescopic push arms <u>Lower wing push arm:</u> The lower wing push arm shall be of the fixed type adjustable in length to; 69", 79" and 89" and meet the following minimum dimensions: - Outside diameter of tube: 2 7/8" - Adjusting bar: 2 1/4" dia. solid shaft. - Shall be further equipped with a shear pin in order to protect the wing trip mechanism in case of a severe impact.			
7.2.39 Upper wing push arm The upper push arm shall be of the adjustable length type and be equipped with a compression spring. It shall meet the following minimum dimensions: - Outside diameter of tube: 3 1/2" - Adjusting bar: 2 3/4" dia. solid shaft.			
7.2.40 Upper wing push arm compression spring The compression spring shall meet the following minimum specifications: 1) O.D.: 5 1/2" 2) Overall length: 18" 3) Wire dia.:3/4" 4) Shall be mounted to work in compression for better reliability in case of a spring failure. An extension spring will not be accepted. 5) The compression spring force shall be adjustable.			
7.2.41 Push arm end couplers Shall be made of cast steel and designed so that the plowing forces transmitted to the push arms are supported by the bearing shoulders of the male and female adapter and not by the coupling bolt.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.2 Demonstration: Continued			
7.2.42 Auxiliary led wing light 4" dia., weather proof, LED type c/w wiring and in-cab switch.			
7.2.43 Rear wing attachment hydraulic system The hydraulic cylinder actuating the wing push arms to raise and lower the rear end of wing shall meet the following minimum requirements: - Piston diameter: 3 1/2" - Piston rod diameter: 2"			
7.2.44 Floating system The operation of the rear wing attachment shall be provided with a wing floating mechanism in order to allow the wing plow to follow the road contour. The cylinder and valve ports shall be o'ring type S.A.E. connected to 37 degrees flare J.I.C. fittings.			
7.3.1 Pintle hook to be Holland PH-410RA11 rigid mount air operated, with air chamber, plunger and mounting bracket, suitably reinforced to the frame with provisions for safety chains. Custom designed pintle hook mounting plate with D-rings Electrical connectors for pintle plate 7 –way and 2-way connection Sweeper control box connection.			Provide Details:
7.4 Welding/ Construction			
7.4.1 All welding is to be continuous. Welds shall be neat and smooth and weld penetration shall provide for maximum design strength without failure through the base metal junction.			

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.5 Hydraulic Oil			
7.5.1 Must be Dexron II or equivalent.			
7.6 Hydraulics			
7.6.1 Comply with SAE standards for operating conditions.			
7.6.2 Remain resilient and flexible down to minus 40 degrees Celsius.			
7.6.3 Supply and install a crankshaft driven "Tyrone dry mode" or equivalent hydraulic pump. The pump is to operate the snow plow as well as the dump box.			Type:
7.6.4 The pump drive shaft is to be a minimum Spicer 1280 series, having needle roller bearing universal joints and a splined slip joint.			Type:
7.6.5 The hydraulic system is to include adequate oil capacity, filtration (with replaceable filters), pressure control and relief devices, and other equipment necessary to ensure the satisfactory and safe operation of the dump box and snow plow(s).			Provide Details:
7.6.6 In-cab mounted air controls to be feathering proportional type, which allow the operator to easily raise or lower the plow to any desired position. The valve controls are to be the joystick type with easy access for the operator.			Type:

SPECIFICATIONS	CONFORM		Specify the actual components supplied and their rated capacities for the unit tendered. Note in detail any deviations from the specified items.
	YES	NO	
7.0 Dump Body Spreader: Continued			
7.6 Hydraulics: Continued			
7.6.7 All air control lines to be color coded for easy identification.			
8.0 Miscellaneous			
8.1 Miscellaneous			
8.1.1 Permanently identify all instrumentation and controls. Provide instructions, diagrams and warning plates to ensure efficient operation and servicing with maximum safety.			
8.1.2 Provide and install a minimum 3/8-inch-thick, 20 feet by 1 foot, and rubber deflector on the front of the plow.			
8.2			
8.2.1 If available provide a training video. The video contents shall include training on the operation and maintenance of the detachable plow system.			
9.0			
9.1 Prototype units will not be acceptable. The bidder must be able to demonstrate a solid history for the product offered in this tender by airports.			
9.2 References			
List five (5) airports who have been using the plow offered in this tender for a minimum period of one year.			

	Name of Airport	Contact Name	Length of Time in Service For	Specify Model	Phone #
1					
2					
3					
4					
5					

AMENDMENT NUMBER 1 TO THE BID DOCUMENTS
Amendment Date: **August 16, 2018**

SNOW PLOW MATERIAL SPREADER TRUCK

A. This Amendment shall be considered part of the bid documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Amendment shall govern and take precedence. BIDDERS MUST SIGN THE AMENDMENT AND SUBMIT IT WITH THEIR BIDS.

B. Bidders are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Amendment. It will be construed that each bidder's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

Except as described below, the original bid document remains unchanged. The bid documents are modified and/or clarified, as follows:

Price Table	
Total Snow Plow, Material Spreader and Truck Price before taxes delivered to the Charlo Regional Airport **include itemized quote with bid*	
HST	
Total Price	
Liquid pre-treatment system for material spreader	
One spare carbide scraper blade	
One rear spare rim-fitted tire as specified in section 6.10.1	

BIDDER MUST ACKNOWLEDGE THIS AMENDMENT BY SIGNING BELOW AND ATTACHING THE SIGNED AMENDMENT TO THE BID FORM:

Company Name _____

Contact Person _____

Signature _____

Date _____

Stephanie Clark
CEO, Charlo Regional Airport Authority

AMENDMENT NUMBER 2 TO THE BID DOCUMENTS

Amendment Date: **August 22, 2018**

SNOW PLOW MATERIAL SPREADER TRUCK

A. This Amendment shall be considered part of the bid documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Amendment shall govern and take precedence. BIDDERS MUST SIGN THE AMENDMENT AND SUBMIT IT WITH THEIR BIDS.

B. Bidders are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Amendment. It will be construed that each bidder's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

Except as described below, the original bid document remains unchanged. The bid documents are modified and/or clarified, as follows:

Under item 7.3.1 remove: *sweeper control box connection*

BIDDER MUST ACKNOWLEDGE THIS AMENDMENT BY SIGNING BELOW AND ATTACHING THE SIGNED AMENDMENT TO THE BID FORM:

Company Name _____

Contact Person _____

Signature _____

Date _____

Stephanie Clark
CEO, Charlo Regional Airport Authority

AMENDMENT NUMBER 3 TO THE BID DOCUMENTS
Amendment Date: **August 27, 2018**

SNOW PLOW MATERIAL SPREADER TRUCK

A. This Amendment shall be considered part of the bid documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Amendment shall govern and take precedence. BIDDERS MUST SIGN THE AMENDMENT AND SUBMIT IT WITH THEIR BIDS.

B. Bidders are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Amendment. It will be construed that each bidder's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

Except as described below, the original bid document remains unchanged. The bid documents are modified and/or clarified, as follows:

Under item 2. Delivery and Opening of Tenders

That is, until 11:00 a.m. and no later than 11:00 a.m., local time, as shown on the official bid receiving clock, on Friday, August 31st.

A public tender opening will take place at 12:00 p.m., on Friday, August 31st in the Airport boardroom located on the main level of the Airport Terminal Building at 291, Morris Street.

Under item 7.1.4 remove:

**To prevent material hang-ups and corrosion, a honeycomb structure underneath the floor plate will not be accepted.*

BIDDER MUST ACKNOWLEDGE THIS AMENDMENT BY SIGNING BELOW
AND ATTACHING THE SIGNED AMENDMENT TO THE BID FORM:

Company Name _____

Contact Person _____

Signature _____

Date _____

Stephanie Clark
CEO, Charlo Regional Airport Authority