

**TOWN OF STONINGTON
DEPARTMENT OF
PUBLIC WORKS**



**INVITATION TO BID
FOR THE PURCHASE OF
CAB & CHASSIS
AND EQUIPMENT**

**Town Of Stonington
152 Elm Street
Stonington, Connecticut 06378
(860) 535-5055 • Fax (860) 535-1023**

Prepared for the
Town of Stonington
By Steven A Burdick

2014

TOWN OF STONINGTON

TRUCK SPECIFICATIONS

Intent

It is the intent of these documents to describe in detail two (2) 2015 International 7400 SFA 4x2 (SA525) Cab & Chassis, (2) Body Company equipment packages, and all miscellaneous items required to complete the trucks and equipment packages.

The Town of Stonington would like the Bidder, to work as an “allied” equipment vendor in this Bid and purchasing process, therefore the truck vendor shall be responsible for handling both the cab & chassis and the body company installations unless otherwise noted within the quote specifications.

The following specifications describe our minimum requirements for the quality and type of equipment to be furnished. Bidder may offer equipment which exceeds these requirements. Bids which fail to meet these minimum requirements will be considered non-responsive to our needs.

The truck Cab & Chassis shall be new and of the latest design and be in current production at the time of the submission of the bid. All subcontractors installing equipment and components must be an authorized stocking distributor of that equipment for the purposes of warranty, parts and service.

Availability

The Bidder must indicate the number of calendar days required for the delivery of the completed Trucks and Equipment packages with the Bid Prior to Receipt of Order. (P.R.O.)

Inspections

The work in progress shall be subject to periodic inspections.

- 1) When the truck dealer receives the Cab & Chassis.
- 2) When the truck dealer delivers the completed truck and equipment package to the Town of Stonington. (**Truck will come supplied with its original Order Content Confirmation.**)
- 3) Equipment installation is subjected to additional inspections listed herein this Document.

Pre-Delivery Inspection

The Cab & Chassis and associated options furnished will receive a detailed pre-delivery inspection to assure compliance with specifications in all aspects of the Cab & Chassis. All aspects of the Cab & Chassis must match the specifications within this document. The Cab & Chassis will not proceed to the Body Company until such time the Inspection has been completed and approved.

Body Company Delivery

Awarded Bidder shall be responsible for delivering and receiving the cab & chassis to and from the Body Company, cleaning, prepping, and delivery of the final product to the Town of Stonington.

Cab & Chassis Warranty

See compliance section.

Evaluation

The quality of the equipment supplied, their conformity with the specifications, their suitability to requirements, delivery terms, guaranty clauses, and price of the materials shall all be taken into consideration. Where equivalent equipment is offered, the Town of Stonington will determine if the proposed item is equal or better than that specified.

Design

Materials shall be of good commercial quality for the intended service and shall be produced by use of current manufacturing processes and treated to resist rust, corrosion and wear.

Standard Equipment

All cab & chassis specifications shall conform to standard equipment unless otherwise specified.

Model Information Required

The manufacturer, make and exact models proposed as substitutes shall also be submitted on bidder's letterhead with any proposal contended to be "equivalent".

Equivalent Proposals

It is the intent of these specifications to describe and govern the purchase of the new and unused cab & chassis with any and all accessories as noted herein. The cab & chassis shall conform to the highest quality of manufacturing and design standards. Any item or items not specifically mentioned herein, but which would be required to produce a complete working unit, shall be supplied by the vendor.

If a Bidder is basing his proposal on equipment other than what is specified in this document and wishes the cab & chassis he/she proposes to be considered as an "approved equal", he/she shall submit on a separate sheet, in the exact format of the technical specifications contained herein, and item by item description of that which he/she proposes to substitute including any and all variations from or exceptions to the conditions and specifications herein this document. Failure to comply may result in rejection of proposal.

To be Determined

All instances in which "to be determined" is expressed and written herein this document shall indicate a final need of approval by the Town of Stonington.

Regulations

All Trucks and associated equipment installation packages will meet all Federal, State, and OSHA regulations and so be certified.

Informalities

THE BOARD OF SELECTMEN RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS OR TO WAIVE ANY INFORMALITY IN THE BID.

Trade-In

See "trade in" section after compliance check list.

Please indicate yes or no to verify compliance with the specifications

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>SA52500</u>		
The base chassis model will be a 7400 SFA 4x2 with 171.00 wheelbase, 96.00 CA, and 63.00 axle to frame.	_____	_____
<u>1570</u>		
Tow hook, front (2) frame mounted.	_____	_____
<u>1CAG</u>		
Frame Rails heat treated alloy steel (120,000 PSI Yield) ; 10.250" x 3.610" x 0.375" (260.4mm x 91.7mm x 9.5mm) 456.0" (11582mm) maximum OAL	_____	_____
<u>1LLA</u>		
Bumper Front steel, swept back. Includes : Bumper, Front powder coated gray (Argent) color.	_____	_____
<u>1WDS</u>		
Frame Extension, Front integral; 20" in front of grille.	_____	_____
<u>1WEV</u>		
Wheelbase range 146" (370cm) through and including 195" (495cm).	_____	_____
<u>2ARU</u>		
Axle front non-driving {meritor MFS-16-143A} wide track, I-beam type, 16,000-lb capacity.	_____	_____
<u>3770</u>		
Springs, front auxiliary rubber.	_____	_____
<u>3ADE</u>		
Suspension, front, spring parabolic, taper leaf; 16,000-lb capacity, with shock absorbers. Includes : spring pins rubber bushings, maintenance free.	_____	_____
<u>4091</u>		
Brake system, Air dual system for straight truck applications. Includes : brake lines color and size coded nylon, drain valve twist type, dust shields front brake, dust shields rear brake, gauge air pressure (2) Air 1 and Air 2 gauges located in instrument cluster, parking brake control yellow knob located on instrument panel, parking brake valve for truck, quick release valve bendix on rear axle for spring brake release: 1 for 4x2, 2 for 6x4, slack adjusters front automatic, slack adjusters rear automatic, spring brake modulator valve R-7 for 4x2, SR-7/w relay for 6x4.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>4193</u>		
Brakes, front, Air Cam 16.5" x 6", Includes: 24 SqIn long stroke brake chambers.	_____	_____
<u>4619</u>		
Trailer connections four wheel, with hand control valve and tractor protection valve for straight truck.	_____	_____
<u>4773</u>		
Brake shoes, rear cast.	_____	_____
<u>4AZJ</u>		
Air brake ABS {bendix antilock brake system} full wheel control system (4- channel) with automatic traction control.	_____	_____
<u>4EDB</u>		
Air dryer {meritor wabco system saver 1200} with heater. Includes air dryer location inside left rail back of cab.	_____	_____
<u>4ERC</u>		
Brake chambers, spring relocated to rear of rear axle for maximum ground clearance.	_____	_____
<u>4ETE</u>		
Brake chambers, front axle {Haldex} 24 SqIn.	_____	_____
<u>4EVH</u>		
Brake chambers, rear axle {MGM TR3030LP3TSHD} 30/30 spring brake. Includes: brake Chambers, spring (2) rear parking: with truck brakes: All 4x2, 4x4; with tractor brakes: All 4x2, 4x4; 6x4 & 6x6 with rear tandem axles less than 46,000-lb. or GVWR less than 54,000-lb.	_____	_____
<u>4LAA</u>		
Slack adjusters, front {Haldex} automatic.	_____	_____
<u>4LGA</u>		
Slack adjusters, rear {Haldex} automatic.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>4NDB</u>		
Brakes, rear, Air Cam S-Cam; 16.5" x 7.0"; Includes 30/30 Sq.In. long stroke brake chamber And spring actuated parking brake.	_____	_____
<u>4SBC</u>		
Air compressor {Bendix Tu-Flo-550} 13.2 CFM capacity.	_____	_____
<u>4WDA</u>		
Drain valve (3) Petcocks; for air tanks	_____	_____
<u>5708</u>		
Steering column tilting.	_____	_____
<u>5CAL</u>		
Steering wheel 2-spoke, 18" diameter, black.	_____	_____
<u>5PTB</u>		
Steering gear (2) {Sheppard M-100/M-80} dual power.	_____	_____
<u>7BEP</u>		
Exhaust system switchback horizontal aftertreatment device, frame mounted right side under cab; includes single vertical tail pipe, frame mounted right side back of cab.	_____	_____
<u>8000</u>		
Electrical system 12-volt, standard equipment. Includes Battery box steel with plastic lid. Data link connector for vehicle programming and diagnostics in cab. Fuses, electrical SAE blade-type. Hazard switch push on/push off, located on top of steering column cover. Headlight dimmer switch integral with turn signal lever. Headlight (2) sealed beam, round with chrome plated bezels. Horn, electric single. Jump start stud located on positive terminal of outermost battery. Parking light integral with front turn signal and rear tail light. Running light (2) daytime, included with headlights. Starter switch electric, key operated. Stop, turn, tail & B/U lights dual, rear, combination with reflector. Turn signal switch self canceling for trucks, manual canceling for tractors, with lane change feature. Turn signals, front includes reflectors and auxiliary side turn signals, solid state flashers; flush mounted. Windshield wiper switch 2-speed with wash and intermittent feature (5 Pre-set delays), integral with turn signal lever. Windshield wipers single motor, electric, cowl mounted. Wiring, chassis color coded and continuously numbered.	_____	_____
<u>8518</u>		
Cigar lighter includes ash cup.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>8541</u>		
(2) Disc Style Electric Horns.	_____	_____
<u>8875</u>		
Battery terminals sealed.	_____	_____
<u>8GXD</u>		
Alternator{Leece-Neville AVI160P2013} brush type; 12 volt 160 amp. Capacity, pad mount, with remote sense.	_____	_____
<u>8HAB</u>		
Body builder wiring back of standard cab at left frame or under extended or crew cab at left Frame; Includes sealed connectors for tail/amber turn/marker backup/accessory power/ground and sealed connector for stop/turn.	_____	_____
<u>8HAG</u>		
Electric trailer brake/lights accommodation package to rear of frame; for separate trailer stop, tail, turn, marker light circuits; Includes electric trailer brake accommodation package with cab connections for mounting customer installed electric brake unit, less trailer socket.	_____	_____
<u>8MUE</u>		
Battery system {international} maintenance-free, (4) 12-volt 2600CCA total.	_____	_____
<u>8NAA</u>		
Tail light wiring modified includes: wiring for standard Lt & Rt tail lights; separate 8.0' of extra Cable wiring for Lt & Rt body mounted tail lights.	_____	_____
<u>8RGA</u>		
2-way radio wiring effects; wiring with 20 amp fuse protection, includes ignition wire with 5 amp fuse, wire ends heat shrink and routed to center of header console in cab.	_____	_____
<u>8RMA</u>		
Radio AM/FM/WB/Clock/Bluetooth/USB Input, MP3, Apple device play & control, Bluetooth For Phone & Music, with multiple speakers.	_____	_____
<u>8THB</u>		
Back-up alarm electric, 102dBA.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>8THJ</u>		
Auxiliary harness 3.0' for auxiliary front head lights and turn signals for front plow applications.	_____	_____
<u>8TKK</u>		
Trailer auxiliary feed circuit for electric trailer brake accommodation/Air trailer ABS; with 30 amp fuse and relay, controlled by ignition switch.	_____	_____
<u>8VUK</u>		
Battery box Aluminum with plastic cover, 18" wide, 2, 3, or 4 battery capacity, mounted right Side back of cab.	_____	_____
<u>8WBW</u>		
Jump start stud remote mounted. Includes jump start stud mounted to battery box.	_____	_____
<u>8WCL</u>		
Horn, air black, single trumpet, air solenoid operated.	_____	_____
<u>8WGL</u>		
Windshield wiper spd control force wipers to slowest intermittent speed when park brake set and wipers left on for a predetermined time.	_____	_____
<u>8WML</u>		
Headlights long life halogen; for two light system.	_____	_____
<u>8WPH</u>		
Clearance/marker lights (5) {truck lite} amber LED lights, flush mounted on cab or sunshade.	_____	_____
<u>8WPZ</u>		
Test exterior lights pre-trip inspection will cycle all exterior lamps except back-up lights.	_____	_____
<u>8WRB</u>		
Headlights on w/wipers headlights will automatically turn on if windshield wipers are turned on.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>8WTL</u>		
Starting motor {Delco Remy 39MT} 12 volt; gear reduced, with thermal over-crank protection.	_____	_____
<u>8WWJ</u>		
Indicator, low coolant level with audible alarm.	_____	_____
<u>8WXD</u>		
Alarm, parking brake electric horn sounds in repetitive manner when vehicle park brake is “Not” set with ignition “OFF” and any door opened.	_____	_____
<u>8XAH</u>		
Circuit breakers manual-reset (main panel) SAE type III with trip indicators, replaces all fuses except for 5-amp fuses.	_____	_____
<u>9585</u>		
Fender extensions rubber.	_____	_____
<u>9HAN</u>		
Insulation, under hood for sound abatement.	_____	_____
<u>9HBM</u>		
Grille stationary, chrome.	_____	_____
<u>9HBN</u>		
Insulation, splash panels for sound abatement.	_____	_____
<u>9WAC</u>		
Bug screen front end; mounted behind grille.	_____	_____
<u>9WBC</u>		
Front end tilting, fiberglass, with three piece construction; for 2007 & 2010 emissions.	_____	_____
<u>10060</u>		
Paint schematic, PT-1 single color, design 100. Includes paint schematic ID letters “GM”.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>10761</u>		
Paint type base coat/clear coat, 1-2 tone.	_____	_____
<u>11001</u>		
Clutch Omit item (clutch & control).	_____	_____
<u>12926</u>		
Radiator hoses, silicone; molded.	_____	_____
<u>12NWC</u>		
Engine, diesel {Navistar N9} EPA 10, SCR, 300 HP @ 2000 RPM, 860 lb-ft Torque @ 1200RPM, 2200 RPM governed speed, 300 Peak HP (Max). Includes: Air compressor air supply line naturally-aspirated (air brake chassis only). Anti-freeze red shell rotella extended life coolant; -40 degrees F/-40 degrees C; for Maxxforce and Navistar engines. Cold starting equipment intake manifold electric grid heater with engine ECM control. Cruise control electronic; controls integral to steering wheel. Engine oil drain plug magnetic. Engine shutdown electric, key operated. Fuel filter included with fuel/water separator. Fuel/water separator fuel/water separator and fuel filter in a single assembly; with water-in-fuel sensor; engine mounted. Governor electronic. Oil filter, engine spin-on type. Wet type cylinder sleeves.	_____	_____
<u>12THZ</u>		
Fan drive {Horton Drivemaster Polar Extreme} direct drive type, tow speed with residual torque device for disengaged fan speed. Includes: fan nylon.	_____	_____
<u>12UCW</u>		
Radiator aluminum, cross flow, series system; 1228 Ssqin core and 648 Ssqin charge Air cooler and with transmission oil cooler.	_____	_____
<u>12UNH</u>		
Federal emissions EPA, OBD and GHG certified for calendar year 2014; N9 & N10 engines.	_____	_____
<u>12VAG</u>		
Air cleaner single element, with integral snow valve and in-cab control. Include: gauge, air Cleaner restriction air cleaner mounted.	_____	_____
<u>12VXU</u>		
Throttle, hand control engine speed control for pto; electronic, stationary pre-set, two speed Setting; mounted on steering wheel.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>12VZA</u>		
Engine control, remote mounted provision for; Includes wiring for body builder installation of Pto controls; with ignition switch control for maxxforce post 2007 emissions electronic engines.	_____	_____
<u>12WTH</u>		
Block heater, engine {Philips} 120 volt/1250 watt; with “Y” cord from socket in standard location, for a dealer installed oil pan heater, with extended life coated metal/plastic/metal material oil pan, for I6. Includes block heater socket receptacle type; mounted below drivers door.	_____	_____
<u>12WZE</u>		
Emission compliance federal, does not comply with California clean air regulations.	_____	_____
<u>13AVL</u>		
Transmission, automatic {Allison 3500_RDS_P} 5 th generation controls; wide ratio, 6-speed, with double overdrive; on/off hwy; Includes oil level sensor, with pto provision, less retarder, with 80,000-lb GVW & GCW max.	_____	_____
<u>13WAW</u>		
Oil cooler, auto transmission {Modine} water to oil, for Allison or CEEMAT transmission.	_____	_____
<u>13WDZ</u>		
Shift control parameters Allison S-1 performance programming in primary and Allison fixed programming in secondary.	_____	_____
<u>13WLP</u>		
Transmission oil synthetic; 29 thru 42 pints.	_____	_____
<u>13WUC</u>		
Allison spare input/output for rugged duty series (RDS); general purpose trucks, construction.	_____	_____
<u>13WVN</u>		
Transmission shift control {Allison} Bump Shifter type; for Allison 3000 & 4000 transmission.	_____	_____
<u>13WYH</u>		
Transmission TCM location inside cab.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>14AHK</u>		
Axle, rear, single {Dana spicer S26-190} single reduction, 26,000-lb capacity, R wheel ends. Gear ratio 6.83 Includes: Rear axle drain plug(1) magnetic, for single rear axle.	_____	_____
<u>14VAJ</u>		
Suspension, RR, spring, single vari-rate; 31,000-lb capacity, with 4500 lb auxiliary rubber Spring.	_____	_____
<u>14WVG</u>		
Axle, rear, lube {EmGard FE-75W-90} synthetic oil; 30 thru 39.99 pints.	_____	_____
<u>15SRE</u>		
Fuel tank top draw; D style, non polished aluminum, 19” deep, 50 U.S. gal., 189 L capacity, with quick connect outlet, mounted left side, under cab.	_____	_____
<u>15WDG</u>		
Def tank 7 U.S. Gal. 26.5L capacity, frame mounted outside left rail, under cab.	_____	_____
<u>16030</u>		
Cab conventional. Includes: Arm rest (2) molded plastic; one each door. Clearance/marker lights (5) flush mounted. Coat hook, cab located on rear wall, centered above rear window. Cup holders two cup holders, located in lower center of instrument panel. Dome light, cab rectangular, door activated and push on-off at light lens, timed theater dimming, integral to console, center mounted. Glass, all windows tinted. Grab handle, cab interior (1) “A” pillar mounted, passenger side. Grab handle, cab interior (2) front of “B” pillar mounted, one each side. Interior sheet metal upper door (above window ledge) painted exterior color. Step (4) two steps per door.	_____	_____
<u>16975</u>		
Heater hoses silicone.	_____	_____
<u>16HBA</u>		
Gauge cluster English with English electronic speedometer. Includes: Gauge cluster (6) engine oil pressure (Electronic), water temperature (Electronic), fuel (Electronic), tachometer (electronic), voltmeter, washer fluid level. Odometer display, miles, trip miles, engine hours, trip hours, fault code readout. Warning system low fuel, low oil pressure, high engine coolant temp, and low battery voltage (visual and audible).	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>16HGH</u>		
Gauge, oil temp, Allison tran.	_____	_____
<u>16HHE</u>		
Gauge, air cleaner restriction {Filter-Minder} with black bezel mounted in instrument panel.	_____	_____
<u>16HKT</u>		
IP cluster display on board diagnostics display of fault codes in gauge cluster.	_____	_____
<u>16HLJ</u>		
Gauge, def fluid level.	_____	_____
<u>16JNT</u>		
Seat, driver {National 2000} air suspension, high back with integral headrest, vinyl, isolated, 1 Chamber lumbar, 2 position front cushion adjustment, -3 to +14 degree back adjust. Includes: Seat belt 3-point, lap and shoulder belt type.	_____	_____
<u>16RPV</u>		
Seat, passenger {National 2000} air suspension, high back with integral headset, vinyl, isolated, 1 chamber lumbar, 2 position front cushion adjustment, -3 to +14 degree back adjust. Includes: Seat belt 3-point, lap and shoulder belt type.	_____	_____
<u>16SDS</u>		
Mirrors (2) {Lang Mekra} styled; rectangular, 7.09” x 15.75” & integral convex both side, 102” inside spacing, breakaway type, heated heads thermostatic controlled, clearance lights LED, bright heads and brackets.	_____	_____
<u>16SDZ</u>		
Mirror, convex, hood mounted {Lang Mekra} right and left side; 7.44” Sq., bright.	_____	_____
<u>16SEE</u>		
Grab handle chrome; towel bar type with anti-slip rubber inserts; for cab entry mounted left side only at “B” pillar.	_____	_____
<u>16VSL</u>		
Windshield heated, single piece.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>16WBY</u>		
Arm rest, right, driver seat.	_____	_____
<u>16WCT</u>		
Air conditioner {Blend-Air} with integral heater & defroster. Includes: Clamps, heater hose mubea constant tension clamps. Heater hoses premium. Refrigerant hydrofluorocarbon HFC-134A.	_____	_____
<u>16WJT</u>		
Instrument panel center section, ergonomic panel.	_____	_____
<u>16WKY</u>		
HVAC fresh air filter.	_____	_____
<u>16WRZ</u>		
Cab interior premium. Includes: “A” pillar cover molded plastic. Cab interior trim panels cloth covered molded plastic, full height; all exposed interior sheet metal is covered except for the following: with a two-man passenger seat or with a full bench seat the back panel is completely void of covering. Cab sound insulation includes dash and engine cover insulators. Cab, interior trim, closeout lower dash closeout panel; molded plastic; under instrument panel driver side. console, overhead molded plastic; with dual storage pockets with retainer nets, cb radio pocket, speakers, and reading lights. Courtesy light (2) mounted in front map pocket left and right side. Door trim panels with cloth insert on bolster driver and passenger doors. Flooring covering rubber, black. Gauge, temperature, ambient includes compass readout and wiring and sensor with display unit mounted in cluster. Headliner soft padded cloth. Instrument panel trim molded plastic with black center section. Storage pocket, door (2) molded plastic (carpet texture), full length; driver and passenger doors. Sun visor (3) padded vinyl: 2 moveable (front-to-side) primary visors, driver side with vanity mirror and toll ticket strap, plus 1 auxiliary visor (front only), driver side.	_____	_____
<u>16WSK</u>		
Cab rear suspension air bag type.	_____	_____
<u>16XWD</u>		
Sunshade, exterior aerodynamic, painted roof color, includes integral clearance/marker lights.	_____	_____
<u>16XWJ</u>		
Windshield wiper blades snow type.	_____	_____

<u>CODE</u>	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<u>16XXC</u>		
Cowl tray lid.	_____	_____
<u>27DMW</u>		
Wheels, front disc; 22.5” painted steel, 5 hand hole, 10 stud (285.75MM BC) hub piloted, flanged nut, metric mount, 9.00 DC rims; with steel hubs. Includes: Paint identity, front wheels white.	_____	_____
<u>28DMW</u>		
Wheels, rear dual disc; 22.5” painted steel, 5 hand hole, 10 stud (285.75MM BC) hub piloted, flanged nut, metric mount, 9.00 DC rims; with steel hubs. Includes: Paint identity, front wheels white.	_____	_____
<u>60AAH</u>		
BDY INTG, remote power module (2) mounted inside cab behind driver seat; up to 6 outputs & 6 inputs Each, max.20 amp, per channel, max. 80 amp total (includes 2 switch packs with latched switches).	_____	_____
<u>7382150162</u>		
(4) Tire, rear 12R22.5 Unisteel G177 (Goodyear) 478 rev/mile, load range H, 16 ply.	_____	_____
<u>7652543208</u>		
(2) Tire, front 315/80R22.5 XZY-3 (Michelin) 486 rev/mile, load range L, 20 ply.	_____	_____
<u>40107</u>		
Waranty standard for workstar 7300/7400 (4x2, 4x4, 6x4, 6x6), effective with vehicles built January 2 2014 or later, CTS-2002T.	_____	_____
<u>Misc Requirements</u>		
The Cab & Chassis will be supplied with a Standard limited warranty; all warranty literature shall be supplied at the time of delivery.	_____	_____
All vehicles warranty “ start ” dates are to be adjusted to a date that represents a fully completed (Including all body vendor installations), Delivered, and commissioned truck.	_____	_____
<u>Manuals</u>		
All parts, service, tech, powertrain control/ emissions diagnosis, electrical and vacuum diagnosis manuals, owners, maintenance, and warranty guides and supplements are to be supplied!	_____	_____
All CD-ROMs/DVD technical software (ISIS) pertaining to vehicle shall be included!	_____	_____

COMPLIANCE

Manuals

YES **NO**

All dealers are to supply a detailed listing of all MANUALS/ CD-ROMs/DVD part numbers, descriptions, and cost!

In the event that the Truck Dealer does not supply a complete set of Manuals/Cd-roms at the time of the completed Truck/Equipment delivery the Town of Stonington shall require a detailed Voucher indicating all missing components with an approximate date of delivery. Dealer shall incur any and all expenses related to cost increases with any/all Voucher listed items.

THE TOWN OF STONINGTON RESERVES THE RIGHT TO WITHHOLD A PAYMENT EQUAL TO THE COST OF THE MANUALS/CD-ROMS UNTIL SUCH TIME THEY ARE RECEIVED.

IMPORTANT

**CONTRACT AWARDED TRUCK DEALER WILL SUPPLY THE TOWN OF STONINGTON WITH THE DELIVERED TRUCKS ORIGINAL ORDER CONTENT CONFIRMATION.
IN ADDITION DEALER SHALL INCLUDE LINE SET TICKETS FOR EACH TRUCK.**

Trade In

One (1) "Used" 1994 Chevy Kodiak, Model C7H042, Vin# 1GBP7H1J3RJ105577, 3116 cat diesel with 102,000 miles, Allison Automatic, central hydraulic system, with Compu-spread CS 220 spreader control. Trade-in will also include (1) 11' Everest, power angle trip moldboard plow. (1) 9' Henderson Chief, Model FSH drop in V-box style salt spreader with stainless hopper.

One (1) "Used" 1996 Ford LN8000, Model , Vin# 1FDYR82EOTVA17111, 1460 Cummins, 8.3 L diesel with 116,685 miles, Allison Automatic, Everest all season body (side dump), central hydraulic system, with Compu-spread CS 230 spreader control. Trade-in will also include (1) 11' Everest, power angle trip moldboard plow.

One (1) "Used" 1995 Ford L8000, Model , Vin# 1FDYK82E6SVA28729, 1460 Cummins, 8.3 L diesel with 103,862 miles, Allison Automatic, Everest all season body (side dump), central hydraulic system, with Compu-spread CS 420 spreader control.

One (1) "Used" 1997 Ford LN8000, Model , Vin# 1FDYR82E4VVA26641, 1460 Cummins, 8.3 L diesel with 107,507 miles, Allison Automatic, Everest all season body (side dump), central hydraulic system, with Compu-spread CS 230-AC spreader control.

TOWN OF STONINGTON

BODY COMPANY SPECIFICATIONS

Intent

It is the intent of this document to describe in detail (2) 10' side dump left front discharge dump body spreaders, plow hitches, snow plows, hydraulic systems, lighting systems, and all miscellaneous items required to complete the equipment packages. These equipment packages shall be installed on (2) 2015 International 7400 SFA 4x2 (SA525) Cab & Chassis with a CA: of 96", equipped with an {Allison 3500_RDS_P} wide ratio, 6 speed transmission. In the event that additional specifications are needed please refer to attached truck spec.

The following specifications describe our minimum requirements for the quality and type of equipment to be furnished. Bidder may offer equipment which exceeds these requirements. Bids which fail to meet these minimum requirements will be considered non-responsive to our needs.

The equipment shall be new and of the latest design and be in current production at the time of the submission of the Bid. All subcontractors installing equipment and components must be an authorized stocking distributor of that equipment for the purposes of warranty, parts and service.

Availability And Delivery

The Body Company must indicate the number of calendar days required for the delivery of the completed Trucks and Equipment packages Prior to Receipt of Order. (P.R.O.)

Post Award Meeting

Awarded truck dealer and subcontracted body company sales and service managers shall agree to meet with the master mechanic to review all aspects of proposal specification.

Inspections

(The work in progress shall be subject to periodic inspections.)

- 1) After hoist basket, body hinges, pto, pump, plow hitch, pintle plate and spinner installation.
- 2) After valve mounting, manifold installation, prior to in-cab controls, wiring, and hose installations.
- 3) After Accessory installations, just prior to paint.

Pre-Delivery Inspection

The unit and associated equipment furnished will receive a detailed pre-delivery inspection to assure the compliance with specifications in all aspects of the unit as well as subcontracted components or accessories. The Bidder must receive approval on all areas before acceptance of the unit will be processed.

Warranty

The subcontracted Body Co. shall provide all manufacture's written guarantees for all components and accessories. The Body Co. shall guarantee, as a minimum, to repair or replace without cost (as to labor, materials or parts) to the owner, any article that has become defective in service and not proven to have been caused by negligence on the part of the user, within the time frame of the standard manufacture's written guarantee. In addition to Body company warranty coverage's above, Body Co. shall warranty all body Company/subcontractors installed components, systems, subsystems, parts/accessories as to labor commencing at the time of delivery and extending twelve months thereafter.

Evaluation

The quality of the equipment supplied, their conformity with the specifications, their suitability to requirements, delivery terms, guaranty clauses, and price of the materials shall all be taken into consideration. Where equivalent equipment is offered, the Town of Stonington will determine if the proposed item is equal or better than that specified.

Manuals

Unless otherwise indicated, a set of Manuals and CD-ROMS shall be provided with the equipment as follows:

- 1) Operator's Manuals
- 2) Parts Books
- 3) Shop Service Manuals including wiring diagrams and troubleshooting guides
- 4) Hydraulic System Manuals including parts book, tech, and service repair manuals
- 5) Build sheet to include table of contents, parts Descriptions, and factory part numbers

Design

Materials shall be of good commercial quality for the intended service and shall be produced by use of current manufacturing processes and treated to resist rust, corrosion and wear.

Standard Equipment

These specifications include all standard equipment provided for the equipment package unless specifically upgraded or deleted. In the event options are required, the contractor shall provide upgrading of all support systems affected, in accordance with factory recommendations.

Model Information required

The manufacturer, make and exact models proposed as substitutes shall also be submitted on Body Companies letterhead with any proposal contended to be "equivalent".

Equivalent Proposals

It is the intent of these specifications to describe and govern the purchase of the new and unused equipment packages with any and all accessories as noted herein. The equipment packages shall conform to the highest quality of manufacturing and design standards. Any item or items not specifically mentioned herein, but which would be required to produce complete working units, shall be supplied and installed by the Body Co.

If a Body Co. is basing their proposal on equipment other than what is specified in this document and wishes the equipment he/she proposes to be considered as an "approved equal", he/she shall submit on a separate sheet, in the exact format of the technical specifications contained herein, an item by item description of that which he/she proposes to substitute including any and all variations from or exceptions to the conditions and specifications listed in this document. Failure to comply may result in rejection of proposal.

Regulations

All Trucks and associated equipment installation packages will meet all Federal, State, and OSHA regulations and so be certified.

Penalty

The Body Vendor shall deliver to the Truck manufacturer acting as allied equipment (Nutmeg International) each truck fully completed; operational, and commissioned Body Vendor installation. The Body Vendor will have 45 days from the receipt of chassis to make this delivery or be subjected to a \$100.00 per day penalty fee that shall be deducted from the overall body vendor invoice. Time frames shall be calculated in **Calendar Days**.

Payment

The Body Vendor will “not” receive any payment prior to the Town of Stonington receiving (2) fully operational, installed, and completed (Per Specifications) equipment packages.

To be Determined

All instances in which “to be determined” is expressed and written herein this document shall indicate a final need of approval by the Town of Stonington.

MINIMUM PROPOSAL SPECIFICATIONS CHECK LIST

Please indicate yes or no to verify compliance with the specifications.

COMPLIANCE

Yes **No**

Body

Length: 10’ Width: 96” Side Height: 28” Tailgate Height: 38” _____ _____

Headboard

Flat one piece with bolt on conveyor drive unit. Inner face shall be constructed with 3/16” AR400 190,000 PSI Steel. External bracing will be formed with Corten A606G4 Steel. There shall be a 31” cab guard, the cab guard frame will be constructed with Corten A606G4 steel. The cab guard Shall be designed to hold an optional white poly 110 – 120 gallon liquid tank for possible Future upgradability. Top of cab shield shall be fitted with a standard bolt in aluminum insert. _____ _____

Hoist Basket

The Hoist basket will be a Dana HyCo cradle design fitted with a single acting power up gravity down multi stage telescopic hydraulic cylinder. Floating trunions cylinder pivots will be removable grease-able bearing blocks. _____ _____

Floor

Live action type 3/16” AR400 190,000 PSI minimum one-piece steel floor with a ramp to the right side. The floor and right sidewall are supported by a 4” I-beam cross member on 12” centers. The floor and right sidewall move as one unit and are hinged to left side conveyor tray at the long sill by a welded in place 11 piece piano hinge constructed of stainless steel. _____ _____

COMPLIANCE

Yes **No**

Sub-Frame

10” structural channel longsills, full width channel crossmembers front and rear, two intermediate cross members, one tubular longitudinal to form the perimeter fabricated from 4” x 2” x ¼” rectangular tube. All body pins will have spiral cut grease grooves, stainless steel pins and remote grease.

Side

One piece AR400 190,000 PSI steel plate with formed box section top and bottom, material shedding 45 degree lower rub rails, 7” x 3.5” front corner post, two 7” x 3.5” vertical side posts, 15” x 4” rear corner post, 6” high front and rear board pockets, all external bracing shall be fabricated from 10 gauge COR-TEN steel plate, the right side shall tilt with floor if its TBEI Duraclass roll formed style remote grease system to include top and bottom of side tilt cylinder pins. There will be two 8” channel side boards stitch welded in place.

Tailgate

Tailgate will have 3 stoker doors; each door shall be welded in place between each pair of tailgate vertical bracing. Tail gate panel opening shall be modified to a smaller dimension of 13” x 13” in order to help channel asphalt stream into a wheel barrel. Inspection doors shall be TBEI doors.

One piece skin plate of 3/16” 400F (190,000 psi) steel with perimeter box reinforcement six panel bracing, horizontal intermediate stiffener plus lower rub rail shall be dirt shedding design. 1 ½” diameter flame cut hinge ears with 1 ¼” pins and lower latch rod, two chain hooks per side welded to the rear corner posts of the body with 3/8” adjustment chains. Chains will be covered with abrasion resistant sleeves.

A weld on “D” ring shall be welded to the top rear facing angle of dirt shedding angle brace. D-ring is to be utilized for tailgate removal. D-ring mounting hardware is not to extend above top Shedding angle brace.

Chain attachment to tailgate inside upper face of outer vertical braces will be facilitated with welded in place **BL-10-8 Gunnebo** couplers.

Round stock anti-scuff chain guards are to be welded on the outer rear face of the tailgate outer vertical braces to guard against chain to luminosity contact. Material will be ¾” round stock. Guards are to extend to bottom of gate.

Forged weld-on 3/8” grab hooks shall be utilized for chain storage. Storage grab hooks will be welded in place perpendicular to the lower rear face of the outer vertical braces. Approximate weld on location is 8” from bottom of tailgate to seat of grab hook, and 4 3/8” from outer sides of outer vertical braces to the center of the grab hook. Grab hook placement is to allow for obstruction free viewing of rear corner post lighting when chains are not in use.

COMPLIANCE

Yes **No**

Tailgate Locking Mechanism

Positive lock cam action latches giving a “double” lock action, rear latches independently adjustable, flat cut 1/2” plate latch ears with 5/8” flame cut lock fingers, air circulated latch fingers through a double acting air cylinder with in cab del air control.

Conveyor

Left side longitudinal conveyor emptying to the front, full length conveyor cover hinged to fold and latch to the side wall, the cover shall be fabricated from 3/16” AR400 plate conveyor tray fabricated from 3/16” stainless steel plate, pintle type conveyor chain on 18” centers with 3/8” x 1 1/4” flites on 7” centers, 1 3/4” diameter front drive axle shaft powered by a hydraulic motor through a 25:1 worm gear reducer, 1 1/4” rear idler shaft with sealed ball bearings, bolt-in replaceable conveyor floor, Duraclass stainless rod adjusters, guillotine type flow control door with infinite adjustment, poly chute feeding to an 18” diameter poly spinner, the spinner assembly must be easily removable with quick disconnects on the spinner hydraulic motor lines. Complete conveyor is bolt-in type stainless steel.

Miscellaneous Body Requirements

Shovel holder shall be included consisting of (1) one each of the following; Handle hook, blade receiver, and a **Buyers** (model RC10S) welded to front face of dump body headboard driver side.

A frame mounted heavy duty custom fabricated bolt on traffic cone holder is to be included. Cone holder is to be installed on drivers side of cab & chassis. Design and dimensions of cone holder shall mimic our last big truck installation.

Reflexite luminosity tape shall be installed on upper and lower rub rails, and rear tail gate vertical and horizontal bracing.

All metal shall have the mill scale removed and the surface chemically cleaned in preparation of paint/under coating. All surfaces will be primed with a **quality rust preventative primer**. The paint shall be of high quality lead free enamel, top coat color to match cab. Underside of body to be top coated with black lead free enamel.

The underbody shall be top coated with a quality rust inhibitive epoxy primer.

Side ladder consisting of two self-cleaning steps on the body with a three step lower section hinged to fold up and latch to the outside of the body and not interfere with the load cover. Ladder will have custom made and installed 5/8” round stock handles on both sides of stationary ladder section. Base fold up ladder assembly shall be a **Henderson**.

Four-section top screen installed with one access door to the body.

Load cover shall be a Power Cover model DT1200CH fully automatic hydraulic locking load cover installed with steel arms and asphalt tarp, Installation shall include a polished aluminum cab shield mounted wind/debris deflector to guard the load cover when in the uncovered position. The deflector shall be bolt on with (**Stainless steel fasteners**) for easy removal/installation.

COMPLIANCE

Yes **No**

Miscellaneous Body Requirements

All body grease points with the exception of the side dump cylinders shall be plumbed to a header at the bottom of the right side rub rail. All Hydraulic and zerk fittings for this application shall be mounted with female bulkhead connector 37° Flare / NPTF W/Locknut for ease of maintenance. All grease line hydraulic hoses shall be ¼” Aeroquip GH781/Parker 471ST equipped with TTC/43 series JIC 37° fittings. All hoses shall be routed to minimize interference with equipment and chassis components requiring periodic servicing.

Two mud flaps beyond the rear wheel assemblies shall be direct mounted to the lower part of the body apron. A single hook shall be installed in the center of mud flap mounting bracket, with a center punched hole on the lower edge of the mud flap to allow for the folding and hooking of the mud flap for paving operations.

A bolt on cross mud flap assembly consisting of two mud flaps, with bolt on frame shall be installed in front of rear axle to protect the rear brake assemblies from salt/sand spray.

A mud flap with ½” round stock anti-sails shall be chassis mounted behind the SCR tank and in front of the spinner assembly to guard against salt/sand spray.

Fleet Engineers with ice reducing ribs high quality heavy duty black poly fenders are to be installed on the cab & Chassis frame with kit mounting hardware. Poly fenders are to be chosen to match the tire size 12.00/22.5 . Mounting of fenders shall include appropriate tire to fender spacing to allow for chassis loaded conditions. Final installation shall be functional as well as aesthetically pleasing.

Perforated metal channel step platform is to be fabricated and welded to outer side of bolt on conveyor transducer housing just above conveyor gear box. Platform dimension shall be approximately 13 ½” x 4 ½”.

A 5/8”x 3”x 12” custom made round stock handle shall be welded to outer face of cab protector. Handle shall be positioned as high as possible in a horizontal plane.

There will be two 8” channel iron side boards 100% welded in place with flanges facing into body. In addition (4) Buyers B-40 D-rings will be welded on the inside of channel, two on each side approximately 3” from top edge of channel flange to center of D-ring weld on base, spacing for each side will be 22 ¼” from inner face of tailgate to center of D-ring weld on base, and 97” from inner face of tailgate to center of D-ring weld on base.

Two buyers wheel chocks # WC1080 are to be supplied and installed. Two custom fabricated wheel chock receiver hooks are to be welded in place on the front face of dump body head board, driver’s side, upper outer most area.

One OSHA approved backup alarm is to be supplied and installed on the body hinge mounting angle iron on the vertically aligned section of the angle. Exact mounting location of back up alarm is to be determined.

Yes **No**

Miscellaneous Body Requirements

Custom made license plate mounting stanchions are to be welded to the top rear edge of the horizontally aligned dump body hinge mounting angle. Stanchions are to be high enough to mount license plate above the lower horizontally aligned dump body hinge mount angle section to help ward against corrosion from salt build up. Stanchions shall be made of 1/2" x 1" bar stock. _____

Snow Plow

The plow shall be a Henderson Model RSP single section **trip edge design**, 11' long x 42" high 10 gauge steel moldboard, torsion spring type trip edge, cylinder type reverse with cushion valve, moldboard shoes, curb shoes, end punch design for a **3 piece cutting edge**, (2) 4' lengths, and (1) 3' length (**standard highway punch for each section**), the plow lift shall be a cable/drum type assembly. Snow plow will be equipped with a severe service pivot pin. Plow shall be new and furnished with all previous updates/upgrades, of the latest design, and are in current production at the time of the proposal. (Model # RSPxllx42xSTDxRHMB) or equivalent. _____

Snow Plow Misc Requirements

(2) Heavy duty 36" (**Winter Brand**) plow markers are to be supplied and installed. _____

Right side of plow shall have a standard mailbox cut out. _____

Heavy duty snow foil is to be supplied and installed; foil shall be made from heavy duty 1/2" x 12" rubber belting material. Belt shall be secured with a single piece of 2 1/4" x 1/4" flat stock material primed and painted black, securing bolt through holes will be center spaced approximately every 12" inches. Mounting fasteners shall be grade 8, 3/8" diameter with flat washers head and nut side, nuts shall be grade 8 locking. _____

Plow Hitch

The plow hitch will be a stationary type custom frame allowing the hood to tilt over the hitch Without disconnecting the plow, the plow frame will consist of the front mast constructed of 4" X 4" x 1/2" angle vertical members reinforced by 5/8" plate ribs intersected by a 4" x 4" x 1/2" Horizontal top angle, and be assembled with 5/8" huck bolts. A 4" x 4" x 1/2" cylinder base angle And a 3" x 2" x 1/4" base tube, the plow pin points will be 21" and 30 1/2" centers with three 1 1/4" Diameter pin locations, the front mast shall be welded to a mast support frame, the support is in Turn welded to a 5/8" steel bumper plate, the bumper plate shall be bolted to the chassis frame Through two front frame brackets of 1/2" steel plate and two lower cheek plates of 5/8" steel Plate that reach back on the frame rails to evenly distribute the load stress, the lift arm shall be Fabricated from 1" flame cut steel plate braced with two 1/2" x 2" steel flatbars welded to the Main arm and provides lift with a 4" diameter by 10" stroke double acting cylinder, the lift arm Shall have a triple point chain hook, the plow lights shall be hood mounted on custom aluminum Brackets. The hitch will mount outside of frame using 8-5/8" grade 8 Huck plow bolts per side. The hitch will keep a minimum of 14" from grille of the original frame rail and plow hitch Will not stick out more than 18" from the grille. Plow Hitch will be manufactured by Henderson Mfg. _____

COMPLIANCE

Yes **No**

Pintle Hitch

Installed trailer hitch plate shall be a 100% welded, stress relieved custom fabricated 3/4" plate, Fully braced and gusseted to meet the intended **Buyers** trailer hitch **BP760A** load requirements. The assembly shall include two welded on forged rated D-Rings, (1) bolt on 30 ton forged Swivel type pintle hitch with an M.G.T.W. rating of no less than 30-Tons. Hook crotch to ground dimension will be approximately 30" inches.

Glad hands air lines shall be plumbed through the trucks frame beyond the rear spring hanger. Air lines shall be protected against chaffing. OEM trailer air brake feeds shall attach to the appropriate fittings outside the frame rail. Heavy duty glad hands with chain attached covers are to be mounted in protective steel boxes outside of frame rails.

Lighting

Trailer Pintle hitch shall be equipped with (1) model 12310 Cole Hersee 7 Pole trailer socket, and a model 81356 Cole Hersee socket boot. All wires are to be tined before installation. Minimum of 12" inches of extra wire is to be stored behind hitch plate to help facilitate future wiring repairs.

Trailer socket will be connected to chassis **trailer** wiring feeds, all non grounding primary conductors shall be an AWG of 12 or greater. In the event that a trailer wire extension pigtail is required, all pigtail conductors shall match the AWG of the OEM Cab & Chassis trailer harness.

A warning system with 360 degrees of visible warning light shall be built into the dump body. Each front corner of the cab shield shall contain a stainless steel housing, and each housing shall contain two Whelen 400 Series Super-LED warning light fixtures. One light in each housing will face forward, and one light in each housing will face toward its side of the truck. The light fixtures shall be connected using Deutsch waterproof connectors to a 60', 4 conductor, 14 gauge oil resistant TPR cable to a centralized solid state flasher. Light fixtures with built in flashers that lack synchronization are not acceptable. Built into each rear corner posts of the dump body shall be a stainless steel housings, each containing a 700 Series Super-LED warning light fixture, a 700 Series Super-LED Backup Lamp, and a 700 Series LED Brake/tail lamp. The warning lights shall be connected using Deutsch waterproof connectors to a 30' 2 conductor, 14 gauge oil resistant TPR cable to a centralized solid state flasher. Light fixtures with built in flashers that lack synchronization are not acceptable. Brake/Tail lamp and back-up lamps shall be connected using Deutsch waterproof connectors to a 30' 5 conductor , 18 gauge oil resistant TPR cable to its appropriate terminal within the truck chassis.

All primary wire feeds for lighting attached to cab protector shall be run in UV rated PVC Conduit. All conduit securing clamps shall be **stainless steel**. All non conduit protected harness shall be wrapped in UV rated loom.

All body ICC lights will be Truck-Lite (Model 10 LED # 10385R), with closed back wide groove grommet mounts # 10702, equipped with # 93745 Fit 'N Forget plugs. The three center ID apron mounted lights are to be protected from dump loads with a custom self cleaning 3/8 thick gusseted debris guard. The guard will be gusseted in no less than 4 places.

COMPLIANCE

Yes **No**

Lighting

All body cut out holes for 2 ½” Trucklite grommet mounted lights shall be 2.781 dia. _____

All Grommet mounted lighting holes shall be cut to **Lighting Manufactures Specifications**, loose/tight grommet to body fitting is unacceptable. _____

Plow lights shall be Truck-Lite Universal Snow Plow/ATL # 80800. They shall be cushion mounted to front mirror brackets. These lights shall be wired into the truck plow light circuitry. All harnesses to be loom protected and tie wrapped with UV rated loom and tie wraps. _____

Work light/backup light system shall consist of two LED 4” Truck-Lite work lamps # 80360, work lights are to be installed at the inner rear of the body long sills (proper light placement will allow for future trailer hitch installation), this system shall utilize an in cab switch to work in conjunction with the cab & chassis backup light circuitry. These lights will double as work/ backup lights. This system shall be integrated with truck backup light circuitry through a load rated diode/relay to prevent voltage feedback from dash mounted work lamp switch. The diode/relay splice shall be made inside a sealed junction box to guard against corrosion. The work light part of the system will utilize and independent dash mounted switch. Exact mounting location of lights is to be determined. . _____

The remaining two work lights will be used as follows: One will be frame mounted and used as a spinner light, and one will be cab shield mounted to work as a load light. Both will work off of the same switch. _____

License plate light shall be Truck-Lite (Model 15 Led kit # 15040). Light shall be mounted to a raised stanchion welded to the left rear edge of the body hinge mounting angle iron. Stanchion shall be fabricated from ½” x 1” bar stock. _____

All ICC, Stop/Tail/Turn, backup lights, and Multipurpose work lighting junctions shall be protected in a Truck-Lite Super 50 junction box (Model # 50601), along with the applicable 50 series compression fittings/plugs. Exact mounting location of box is to be determined. _____

The number of Truck-Lite Super 50 junction boxes utilized in this install shall be dictated by the number of circuits in this install. Multiple boxes will be utilized in the event of wire crowding. When in doubt the master mechanic will decide how many boxes are to be utilized. _____

All junction box terminal connections shall be treated with a light coat of aerosol Fluid Film protectant. (Clear junction box cover is not to be coated with protectant.) _____

All electrical connections shall be protected with **UV rated (black) Dual Wall Heat shrink tubing with Polyolefin adhesive sealant**. **Crimp and Seal connectors will not be accepted!** _____

All wiring will be protected with heavy duty split poly wire loom/PVC conduit. All wiring Harnesses/Conduit shall be mounted and supported with insulated harness brackets. All harnesses/wires shall be routed to avoid abrasion, cutting, and impact damage. _____

COMPLIANCE

Yes **No**

Lighting

All primary ICC body light feeds shall be **Belden 14 Gauge Marine Jacketed Multi-Conductor Primary wire**. (Parallel bonded with extra outer jacket) _____

All primary wire feeds shall be left with no less than 12” of extra wire, excess wire shall be Bunched and tie wrapped in a neat and orderly fashion. _____

All Body Company wiring installations shall utilize the appropriate circuits, e.g., trailer Relays/pigtails are to be used for trailer wiring not for body lighting. _____

All Ground feeds shall be floated to junction boxes. _____

Each light assembly shall have its **own** ground floated from junction box, only exception to this will be split grounds at the ID lamps on rear body apron. _____

All fuse holders shall be mounted, fully sealed **Belden # 784623**. _____

All thru cab wiring shall be protected from chaffing with Rubber wiring Grommets as well as sealed with a high quality silicone sealant. _____

All lighting and reflectors shall comply with Local, State, and Federal Lighting regulations. _____

Any Body Company through cab installations (grommet wire holes/air feeds etc.) will not Interfere with any support structures/cross members on cab. Body Company will be liable for any such damage. _____

Central Hydraulic System

Controls for engage/ disengage of the PTO shall be a CS105 controller. Control circuit shall be circuit breaker/ fused, and energized/de-energize via body builders relay. _____

The CS 105 Controller shall monitor hydraulic reservoir oil level via the reservoir oil level float switch. Once oil level drops below a safe operating level, this switch will disengage the P.T.O. Once this safety circuit is energized an annunciator on the main control panel will be activated. The low oil circuit will also incorporate a low oil override, this switch shall be wired in such a way as to de-energize the system shut down to facilitate fault finding and equipment stowing. The controller shall be of a compatible CS550 Lite design. All P.T.O wire ends/splices shall be crimp type connectors with **UV rated heavy dual wall heat shrink tubing with polyolefin adhesive sealant**. In addition, all P.T.O wire feeds are to be protected in a heavy duty split wire loom/ PVC conduit. All wire harnesses are to be supported with insulated harness brackets/Heavy duty UV rated wire ties. Harness shall be routed in such a way so to avoid abrasion, cutting, and Impact damage. _____

All primary wire feeds shall be left with no less than 12” of extra wire, excess wire shall be Bunched and tie wrapped in a neat and orderly fashion. _____

COMPLIANCE

Yes **No**

Central Hydraulic System

Power take off will be Transmission mounted and will be hot shift design with no less than 100% of engine speed. The P.T.O. will accept a 4 CID piston pump via direct mount. P.T.O. shall be a Chelsea Model 277 mounted driver's side of cab & Chassis.

Installation of P.T.O shall include a **Wet Spline system** for the connection between the P.T.O. and hydraulic Pump shaft.

The P.T.O. and pump assembly shall be supported with a custom support bracket attached at no less than 2 transmission bolt locations and 2 pump bolt locations **if feasible**. Installation of support bracket shall follow the P.T.O manufactures guide lines. Bracket is to be mounted in such a way that no preloading is transferred onto pump or P.T.O. The bracket shall be primed and top coated to resist corrosion.

The direct P.T.O. mounted hydraulic pump will be a piston type, variable displacement, pressure Compensating design. The pump will be capable of 32 GPM @ 2000 engine rpm. The pump will be a Rexroth A10V060 52 Series.

Hydraulic lines shall be routed to minimize interference with equipment and chassis components requiring periodic servicing. Appropriate support brackets, Grommets, Clamps, Wear sleeves, Insulated mounts, Hose Shields, and Tie wraps shall be utilized to protect lines from abrasion cutting and Impact damage.

Hoses shall not be installed near manifold or exhaust pipes so as to be affected by extreme heat. There shall be no pipe fittings used with any high pressure lines. Any and all hydraulic quick disconnect couplings shall be of the bulkhead mounted style and be rigidly attached without the use of any hose clamp arrangements (Loose hose ends are Not acceptable). Dust caps for male ends and dust plugs for female ends must be attached to couplers. Maximum distance allowed between support clamps/insulated mounts on all hydraulic hoses shall be approximately 24".

Pump pressure sense line will be an Aeroquip 3/8" GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings (internally) bled at the pump. (Load Sense Line)

Pump case drain will be an Aeroquip 3/4" GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings plumbed directly to the reservoir, not through the return line filter. Case drain line shall be attached to the highest available port on the pump housing.

DFR commissioning test port shall be **plumbed out to the protective hydraulic valve body enclosure** and attached to a bulkhead fitting equipped with a gauge port connector #003450. Test port shall be easily accessible. (Gauge port shall come equipped with a sealed cap)

DFR test port line will be an Aeroquip 1/4" GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings.

Pump suction line shall be a 2" I.D. **811-32 Parker**. The pump inlet port shall be a 4 bolt split flange O-ring base with a **JIC 37° adapter end**. Hose fittings will be Parker 88 series **0688-32-32** with crimp shells **#10081-32/Parker 43 series 10643-32-32**. Radiator Hose Clamps Unacceptable.

COMPLIANCE

Yes **No**

Central Hydraulic System

Suction line port @ tank will be equipped with JIC 37° adapter. _____

Pump to valve pressure hose shall be an Aeroquip 1” GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings. _____

Valve drain line shall be an Aeroquip ¼” GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings. _____

Valve to tank return line hose shall be an Aeroquip 1” GH781/Parker 471ST hose with TTC/43 Series female JIC 37° swivel fittings. _____

Valve to spinner assembly lines shall be Aeroquip ½” GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings. The hydraulic inter-connects to the spinner motor shall be stainless quick coupling type, Bulkhead mounted to the spinner chassis mount. Bulkhead fittings will be removable JIC 37° to pipe fittings. _____

Valve to conveyor motor sub-frame rigid stainless steel tubing inter-connecting hydraulic hoses shall be Aeroquip ½” GH781/Parker hose with TTC/43 series Female JIC 37° swivel fittings. Sub-frame interconnecting tubing shall be ½” stainless steel tubing with 0.065” wall Thickness. All stainless steel rigid tubing will be equipped with stainless union adapters SAE Flareless / 37° Flare. Sub-frame lines shall be cushion mounted approximately every 24 “with poly type clamps. _____

Valve to body hoist cylinder hose shall be an Aeroquip 1” GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings. _____

Valve body to side dump sub-frame rigid tubing inter-connecting hydraulic hoses shall be Aeroquip ½” GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings. Sub-frame interconnecting tubing shall be ½” stainless steel tubing with 0.065” wall Thickness. All stainless steel rigid tubing will be equipped with stainless union adapters SAE Flareless / 37° Flare. Sub-frame lines shall be cushion mounted approximately every 24 “with poly type clamps. All Dump body mounted hydraulic hoses shall be factory installed. _____

Valve body to Power Cover sub-frame rigid stainless steel tubing inter-connecting hydraulic Hoses shall be Aeroquip ¼ GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings. Sub-frame lines shall be ½” stainless steel tubing with 0.065” wall thickness. Tubing shall be cushion mounted every 24” with poly type clamps. All stainless steel rigid tubing will be equipped with stainless union adapters SAE Flareless / 37° Flare. _____

Valve to plow raise and lower cylinder lines shall be Aeroquip ½” GH781/Parker 471ST hose with TCC/43 series female JIC 37° swivel fittings. Chassis frame lines shall run from valve body proximity and extend to front frame extensions and be ½” stainless steel tubing with 0.065” wall thickness. Stainless tubing shall be cushion mounted approximately every 24” with poly type clamps. Rigid tubing fittings shall be all stainless union adapters SAE Flareless / 37° Flare. Hoses from lift cylinder shall run to quick couplers, couplers shall be (Parker 60 Series). _____

COMPLIANCE

Yes **No**

Central Hydraulic System

Chassis quick couplers for plow shall be bulkhead mounted with removable JIC 37° to pipe adapters. Protective (60 series) aluminum dust plugs and caps are to be supplied and installed. Exact bulkhead placement to be determined.

Plow up and down hydraulics will have a **float** type function, controlled by a **4-way electric cartridge** all metal design directional control valve, pneumatic control valve, with air over electric switching. Float return circuit will have an **adjustable quill valve** to allow for variable regulation of plow down speed. (**4-way electric cartridge valves are to be mounted inside the protective hydraulic valve enclosure**).

Valve to plow angle left/right cylinder lines shall be Aeroquip ½” GH781/Parker 471ST hose with TTC/43 series female JIC 37° swivel fittings. Chassis frame lines shall run from valve body proximity and extend to front frame extensions and be ½” stainless steel tubing with 0.065” wall thickness. Stainless tubing shall be cushion mounted approximately every 24” with poly type clamps. Rigid tubing fittings shall be all stainless union adapters SAE Flareless / 37° Flare. Hoses from cushion valve shall run to quick couplers, couplers shall be (Parker 60 Series). Chassis quick coupler shall be bulkhead mounted with removable JIC 37° to pipe adapters. Protective (60 series) aluminum dust plugs and caps are to be supplied and installed. Exact bulkhead placement to be determined.

All ports/fittings on the valve body are to be Male SAE-ORB straight thread to JIC 37° adapters. Adapter size shall match the hose sizing within that circuit.

All ports/fittings shall be SAE straight thread unless specified otherwise.

All hydraulic motor circuits will have individual pressure sends and return lines. Under no conditions will shared return ports be allowed.

All bulkhead mounted hydraulic hoses shall be coupled to JIC 37° Bulkhead Unions unless specific installation procedures are noted elsewhere within this document.

All hydraulic cylinders will be double acting design. With the exception of the dump body hoist cylinder.

Central Hydraulic System valving shall be of mobile design to withstand exposure to de-icing chemicals and severe weather conditions. It shall be of cast iron construction-Horizontally stackable and serviceable without disassembly. **Each valve section incorporated will have a built-in flow specifically tailored for Optimum operation of each function/application.** Each section will have built in load sensing.

All sections are to be air operated except a manifold block valve design for the spinner, and auger, this manifold block must be incorporated into main valve assembly. Both spinner / conveyor sections are to have manual override feature. All valving shall be mounted in (1) one main valve assembly. Multiple valve assemblies are unacceptable. Hydraulic valves shall be Rexroth M4-12.

COMPLIANCE

Yes **No**

Pneumatic Controls

Side dump/Inner body lever control shall be mounted in the swivel pedestal. The control shall be 4-way compensating to control the metering action of the pneumatic shift cylinder. The lever shall be a momentary non detent design. The air control valve shall be equipped with an offset handle to accommodate installation order below.

Dump body hoist, and load cover controls shall be mounted in the swivel pedestal, and shall have a brightly-colored spring-loaded, lock-in-neutral collar to prevent accidental operation. The control shall be 4-way compensating to control the metering action of the pneumatic shift cylinder. The lever shall be a momentary non detent design.

The tailgate air lock control valve shall be mounted in the lower right face opening of the swivel pedestal. The air control valve shall be a 2-way valve with a lock out control feature to prevent accidental operation. The control shall be of a push/pull design.

All controls shall be clearly labeled to display control function.

The pneumatic system shall have a DEL pressure protection valve hard-piped directly to the compressed air tank, and shall have an adjustable filter/lubricator/regulator assembly plumbed in line with all controls. Supply-line pneumatic connections shall be made with 1/4" O.D. tubing and compression-type fittings, and sectional control connections shall be 5/32" O.D. color-coded tubing and push-connect swivel elbows. All air tubing shall be rated at no less than 250 psi working pressure, and no less than 1000 psi burst pressure. Operating temperature ratings shall meet or exceed the range of -50°F to +225°F.

Pneumatic filter/lubricator/regulator assembly shall be mounted in the cab.
Exact in cab location to be determined.

Valve section air actuators shall be factory installed Apsco actuators.

Pneumatic control valves shall be mounted in the following order:

(Enclosure arrangement is from left to right starting with top plow multi-function valve.)

- Plow Multi-Function = D45-1266-99-03 Pneumatic Joystick Valve
- Side Dump/Inner Body = D14-1221-99-01 Pneumatic Valve
- Dump Body Hoist = D14-1224-99-01 Center Lock Air Valve
- Spacer = D24-DAV1221SPCRS
- Load Cover = D14-1224-99-01 Center Lock Air Valve
- Spacer = D24-DAV1221SPCRS
- Air Gate = D14-1205-99-01 Push / Pull Air Valve

COMPLIANCE

Yes **No**

Spreader Controls

The CAN Bus spreader control system shall be ground speed oriented to maintain a Pre-determined application rate regardless of vehicle speed. Control shall be by Microprocessor for high control accuracy with the outputs being current compensated. The controller must be modular in design to allow flexibility in mounting, example remote mount display.

The display shall be a glass/film/glass design with a hardness of 7H.

The display will be a 7" wide VGA touch screen display with 262144 colors.

The display shall have adjustable brightness with the maximum brightness being no less than 400 cd/m2.

The display shall include a 1.5 watt speaker that announces rate changes, pause and blast.

In order to ensure there will be no electrical interference either to or from the controller, any Controller bid shall comply with the following standards:

- ISO 11452-2(2004-10) for RF Immunity
- ISO 11452-4(1996) for RF Immunity
- ISO 7637-2(2004) for Conducted Immunity
- ISO 7637-2(2004-06) for Transient Emissions

Controller shall comply with ISO 16750-5 for Resistance to media. (Resistance to spills of coffee, soda etc.)

The controller must be capable of operating in Manual, Automatic (closed loop), or Open loop, Ground speed triggered manual and 12V triggered modes.

The controller shall be capable of having 4 different solid material calibrations, 4 different Prewet liquid calibrations and 4 different anti-ice material calibrations for a total of 12 different Materials. Each material shall have 9 programmable application rates.

Controller shall have 3 detented rotary knobs for application rate selection. Each knob shall have Stainless steel shafts and have a rotational torque of at least 8 oz-in.

The controller shall be capable of operating Auger/Conveyor, Spinner, Pre-wet, Anti-Ice, Cross Conveyor, Air Gate, And Spinner Chute Control.

It must be capable of operating the Spinner, Auger/Conveyor, Pre-Wet, and Anti-Ice all at the same time.

Controller shall have blast features which will include a push on-off type switch, programmable blast amount from 0-100 percent of hydraulic capacity, and a separate and clearly defined audible warning beeper that will sound when the blast button is in the "on" position.

COMPLIANCE

Yes **No**

Spreader Controls

The controller will have a Pause function to accommodate for spot sanding operations. A switch mounted in the control head will allow operators to interrupt spreader functions. During spreading applications this will allow spot spreading without adjusting knobs.

The controller must be capable of the following features;

Spreader control must be capable of reading a gate feedback signal to alert driver when gate is out of range and inaccurate spreading may be occurring.

The controller must be capable of displaying both road temperature and ambient air temperature on screen when an external temperature sensor is used(Control products or Sprague Road Watch). The controller shall be capable of automatically increasing the application rate in response to decreasing road temperature, The rate at which the controller increases the application shall be adjustable in the controllers programming.

The controller, as supplied, must be capable of passing data logging information directly to an external GPS system without having to purchase additional equipment from the spreader controller manufacturer.

Spreader control must be capable of reading a gate feedback signal to alert driver when gate is out of range and inaccurate spreading may be occurring.

The controller shall have built-in Wi-Fi and GPS for optional data downloading.

The controller shall be capable of auto nulling spinner, conveyor/auger and liquid channels when feedback sensors are used. Manual Nulling must be available for all circuits.

Programming shall only be accessed by use of an encrypted USB key. All programming shall Be done by using the touch screen display. The touch screen display shall have a pop-up Keyboard for easy entering of information.

When using liquid to pre-wet granular material the controller must be capable of cutting back The granular material by a predetermined percentage when the liquid is being applied. The Percentage shall be programmable.

The controller will have the ability for the driver to access a trip summary screen that will show them miles traveled and material spread quantities. This information shall also be stored in the controller and used to calculate season totals.

The controller, as supplied will be capable of event based data logging. Controller will provide information that is Event based such as; Event time, Date, Material set point and usage amounts. Spinner set point, Pre-Wet set point and usage amounts. Blast distances and amounts used, Pause Distance, Gate setting and Road Temperature. All the information will be transferred From the spreader control to a desktop/laptop computer via USB drive. All date logging information must be capable of being customized and exported. (Summation reports are not acceptable).

COMPLIANCE

Yes **No**

Spreader Controls

Software updates must be able to be upgraded via desktop/laptop computer and by encrypted USB key. EPROM changes are not acceptable. Upgrade must be Downloadable through the internet from the factory web site.

The controller must be capable of the following features;

All electrical cables supplied must come complete with attached watertight “quick disconnect” connectors, shielded, heavy-duty industrial anti-scuff, and sheathing. Wire joints must be soldered and heat shrink tubing used in all appropriate locations.

For ease of troubleshooting, the controller shall have an on screen error log that is capable of Displaying any error codes that have been generated. The error log shall not clear itself when the Controller is powered off.

The following lengths of cable will be required:

- A) From spreader control to main power – 18 GA, approx. 10ft.
- B) From spreader control to speedometer-18 GA, approx. 10ft.
- C) From spreader control to valve assembly and feedback sensor-18 GA, approx. 25ft.

The spreader control must be made by the same manufacturer as the pump and valve To insure complete system compatibility.

The spreader Control must be Compu-Spread (**CS-550 Lite**) no exceptions.

The spreader Control system and associated components shall be as such to allow for (**closed Loop operation**). “e.g.” Conveyor drive motor, feedback sensors etc.

OPTIONAL INSTALLATIONS

(Please list Itemized optional installation costs separately from main proposal.)

(1) Vibco 3500 vibrator supplied and installed according to manufactures recommendations.

(2) Bawer Storage locker constructed of **304 stainless steel** approximately 24”wide x 18”deep X 18” high with a single door, vented back, and one adjustable shelf. Unit will be supplied and mounted on the truck frame on the Passenger side in front of poly fender. (Exact storage locker mounting location to be determined)

(3) All TTC/43 series female JIC 37° swivel fittings hose ends @ the **sub-frame** rigid stainless steel tubing connections will be stainless steel.

(4) Either Lincoln, Inter-Lube AC3/TLS automatic lube system installed for body and chassis.

(5) Rexroth/Basic Technologies gate feedback system installed and operational.

Financial Summary
(2) 2015 7400 SFA 4X2 (SA525)

Date _____

<u>Quantity</u>	<u>Description</u>	(US DOLLARS)	<u>Unit Price</u>	<u>Extended Price</u>
_____	Net Sale Price Cab & Chassis:		_____	_____
_____	Body/Allied Equipment Package:		_____	_____
_____	# (1) Optional Body/Allied Equipment Package:		_____	_____
_____	# (2) Optional Body/Allied Equipment Package:		_____	_____
_____	# (3) Optional Body/Allied Equipment Package:		_____	_____
_____	# (4) Optional Body/Allied Equipment Package:		_____	_____
_____	# (5) Optional Body/Allied Equipment Package:		_____	_____
_____	Trade-in allowance/credit:		_____	_____
				<u>Total</u>

CONTRACT

THIS TRUCK AND ASSOCIATED EQUIPMENT ORDER SPECIFICATION HEREIN SHALL NOT BE CONSIDERED BINDING UPON THE SELLER/PURCHASER UNTIL SUCH TIME THAT THE SELLER/PURCHASER HAS FULLY REVIEWED, AND APPROVED THIS DOCUMENT WITH AUTHORIZED SIGNATURES.

APPROVED BY SELLER:

ACCEPTED BY PURCHASER:

DEALER OR BUSINESS NAME

_____ Town of Stonington DPW
FIRM OR BUSINESS NAME

AUTHORIZED SIGNATURE AND DATE

AUTHORIZED SIGNATURE AND DATE

OFFICIAL TITLE AND DATE

OFFICIAL TITLE AND DATE

CONTACTS

Director of Finance: Maryanna Stevens

Phone: 860-535-5012

Fax: 860-535-0602

Address: Town of Stonington
Finance Office
152 Elm Street
Stonington, CT. 06378

Director of Public Works: Barbara McKrell

Phone: 860-535-5056

Fax: 860-535-1023

Address: Town of Stonington
Department of Public Works
152 Elm Street
Stonington, CT. 06378

Highway Supervisor: Louis DiCesare II

Phone: 860-535-5019

Fax: 860-535-1392

Address: Town of Stonington
Department of Public Works
86 Alpha Ave
Stonington, CT. 06378

Master Mechanic: Steven Burdick

Phone: 860-535-5020

Fax: 860-535-1392

Address: Town of Stonington
Department of Public Works
86 Alpha Ave
Stonington, CT. 06378