



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA COMMERCIAL ITEM DESCRIPTION (PCID)

Two Wheel Drive Commercial Vehicles

(Supersedes PCID 1106 eff. July 26, 2016)

PCID NO. 1106

Eff. August 17, 2021

1. **Scope:** This PCID covers two-wheel drive commercial type vehicles commonly used by Agencies in the Commonwealth. Unless otherwise noted, the following shall indicate the minimum requirements including all genuine parts, accessories, equipment and safety features considered standard, whether mentioned herein or not.

2. **Classification:** The following vehicles are included in this PCID.

Class 3, Type 1, 11,500 lb. GVWR, Two Wheel Drive, Gasoline Engine Cutaway Cab and Chassis, with Optional Bodies.

Class 4, Type 1, 14,500 lb. GVWR, Two Wheel Drive, Gasoline Engine Cab Over and Chassis, with Van Bodies.

Class 6, Type 1, 26,000 lb. GVWR Two Wheel Drive, Diesel Engine Regular Cab & Chassis, with Optional Van & Stake Bodies.

Class 6, Type 1A, 26,000 lb. GVWR Two Wheel Drive, Diesel Engine Regular Cab & Chassis, with Optional Dump Body.

Class 6, Type 1B, 26,000 lb. GVWR Two Wheel Drive, Gas Engine Regular Cab & Chassis, with Optional Van & Stake Bodies.

Class 6, Type 1C, 26,000lb. GVWR Two Wheel Drive, Diesel Engine Regular Cab & Chassis with Optional Bodies.

Class 8, Type 1, 37,000 lb. GVWR Two Wheel Drive, Diesel Engine, Regular Cab & Chassis, with Optional Bodies.

Class 8, Type 1A, 38,000 lb. GVWR Two Wheel Drive, Diesel Engine, Regular Cab & Chassis, with Optional Bodies.

Class 8, Type 1T, 64,000 lb. GVWR Two Wheel Drive, Diesel Engine, Tandem Axle Cab & Chassis, with Optional Bodies.

3. **Applicable Documents:**

The following standards, or applicable parts of the issue in effect on date of Invitation-Bid Proposal, shall apply at the discretion of interested Commonwealth agencies.

Commonwealth of Pennsylvania Motor Vehicle Code
 Federal Motor Vehicle Safety Standards
 NTEA Dump Body and Conversion Hoist Chart

4. **Requirements:**

Unless otherwise stated in the bid, delivery requirements and required equipment shall be in accordance with PCID 1067, General Requirements for Delivery of Vehicles, most current version in effect at the time and date of bid opening. In addition, the following items shall be included:

- 1) Emergency warning triangle kit.
- 2) First aid kit, ten-person with mountable cabinet.
- 3) Fire extinguisher, 2A:10B:C, five-pound.
- 4) OSHA approved back-up alarm.
- 5) Manufacturer's standard AM-FM radio.

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- 6) Paint color to be selected by ordering agency from manufacturer's standard color choices.
- 7) One cigar lighter/power port.

5. **Material Master** – No Material Masters established for these commodities.

Quality Assurance Specialist: Gerald Grecek, CPPB

Quality Assurance Supervisor: Brian Vulgaris

Class 3, Type 1, Cutaway Cab, Dual Rear Wheel
11,500 lb. Gasoline Engine, Two Wheel Drive Cab and Chassis

- CHASSIS
- 11,500 lb. GVWR
 - Wheelbase and cab-to-axle compatible with specified body
 - Front and rear bumpers
- ENGINE
- Eight (8) or ten (10) cylinder gasoline
 - 255 HP - SAE net rating
- TRANSMISSION
- Heavy-duty automatic with auxiliary oil cooler
- FRONT AXLE
- GAWR compatible with specified GVWR and application
 - Heavy duty front shock absorbers
 - Power steering
 - Front stabilizer bar
- REAR AXLE
- GAWR compatible with specified GVWR and application
 - Heavy duty rear shock absorbers
 - Limited slip rear differential
- BRAKES
- Four wheel antilock, hydraulic.
- ELECTRICAL
- 120 amp alternator
 - 12 volt maintenance free battery - 600 CCA @ 0°F.
- CAB
- Cutaway cab with dual cloth bucket seats, air conditioning integral with the heater and defrosters, left side cowl or fresh air inlet.
 - Driver compartment headliner
 - Driver and cargo compartment lights
 - Cruise control
 - Camper style stainless steel or composite trailer tow type mirrors
- TIRES
- Radial tires compatible with specified GVWR. Rear tires shall be mud and snow type tread.

OPTIONS:

1. Aluminum Van Body Upfit: 12 ft. aluminum van body; 84" Interior height, 144" Interior length, 91" Interior width. 12 gauge rectangular wheelhouse boxes. Full width expanded metal partition with sliding door installed behind driver compartment. Aluminum sidewalls riveted to sidewall posts on 16" centers. One piece aluminum roof, bonded to heavy duty hat section bows. Roof vent, crank open type. Rear door to be selected at time of order from manufacturer's standard available choices. Lowest floor height possible

with cab and chassis. 1 1/8" hardwood or 2" (nominal) dense pine tongue and groove or shiplap flooring. Fiberglass wind fairing to improve aerodynamics.

2. Service Van Upfit: 12 ft. fiberglass reinforced plywood (FRP) body. 72" interior height, 91" interior width, 144" interior length. Bulkhead with sliding door. One piece aluminum roof bonded to heavy duty bows. Roof vent, crank open. Full width rollup door. 1 1/8" hardwood or 2" (nominal) dense pine tongue and groove or shiplap flooring. Interior dome light. Fiberglass wind fairing. Four (4) 22" deep compartments per side, manufacturer's standard. Full width grip strut bumper. Reference: Supreme Corporation Spartan service van, or approved equal.

Class 4, Type 1, Cab Over, Dual Rear Wheel
14,500 lb. Gasoline Engine, Two Wheel Drive Cab and Chassis

CHASSIS	- 14,500 lb. GVWR - Wheelbase and cab-to-axle compatible with specified body - Front and rear bumpers
ENGINE	- Eight (8) cylinder gasoline - 295 HP - SAE net rating
TRANSMISSION	- Heavy-duty automatic with auxiliary oil cooler
FRONT AXLE	- GAWR compatible with specified GVWR and application - Heavy duty front shock absorbers - Power steering - Front stabilizer bar if available from manufacturer
REAR AXLE	- GAWR compatible with specified GVWR and application - Heavy duty rear shock absorbers - Limited slip rear differential
BRAKES	- Four wheel antilock, hydraulic.
ELECTRICAL	- 145 amp alternator - 12 volt maintenance free battery - 750 CCA @ 0°F.
CAB	- Cab Over with dual cloth bucket seats, air conditioning integral with the heater and defrosters, left side cowl or fresh air inlet. - Driver compartment headliner - Driver and cargo compartment lights - Cruise control - Camper style stainless steel or composite trailer tow type mirrors
TIRES	- Radial tires compatible with specified GVWR. Rear tires shall be mud and snow type tread.
FUEL TANK	- 30 gallon

OPTIONS:

1. Aluminum Van Body Upfit: 12 ft. aluminum van body; 84" Interior height, 144" Interior length, 91" Interior width. 12 gauge rectangular wheelhouse boxes. Aluminum sidewalls riveted to sidewall posts on 16" centers. One piece aluminum roof, bonded to heavy duty hat section bows. Roof vent,

crank open type. Rear door to be selected at time of order from manufacturer's standard available choices. Lowest floor height possible with cab and chassis. 1 1/8" hardwood or 2" (nominal) dense pine tongue and groove or shiplap flooring. Fiberglass wind fairing to improve aerodynamics.

2. Service Van Upfit: 12 ft. fiberglass reinforced plywood (FRP) body. 72" interior height, 91" interior width, 144" interior length. One piece aluminum roof bonded to heavy duty bows. Roof vent, crank open. Full width rollup door. 1 1/8" hardwood or 2" (nominal) dense pine tongue and groove or shiplap flooring. Interior dome light. Fiberglass wind fairing. Four (4) 22" deep compartments per side, manufacturer's standard. Full width grip strut bumper. Reference: Supreme Corporation Spartan service van, or approved equal.

Class 6, Type 1, Regular Cab, Dual Rear Wheel,
26,000# GVWR, Diesel Engine, Two Wheel Drive Cab and Chassis with Van & Stake Bodies

- CHASSIS
- 25,500 lb. GVWR, not to exceed 26,000 lbs.
 - Wheelbase and cab-to-axle compatible with specified body
 - High tensile steel or reinforced frame, 80,000 psi, minimum
 - Standard front bumper
 - Two front tow hooks or eyes
- ENGINE
- Diesel
 - 220 HP/ 520 lb.-ft. torque minimum
 - Fuel Water Separator
 - Temperature controlled fan clutch
 - Engine brake
 - Engine block heater
- TRANSMISSION
- Allison 2500 series automatic transmission or approved equal, with oil cooler and synthetic transmission fluid.
- FRONT AXLE
- 8,000 lb. Capacity, Minimum
 - Front stabilizer bar, if available from the manufacturer.
 - HD shock absorbers
 - Power steering
- REAR AXLE
- 17,500 lb. Capacity with tapered leaf springs
- BRAKES
- Anti-Lock brake system (ABS)
 - Full air in compliance with the most current FMVSS-121 requirements
 - Manual pull chain or lanyard operated moisture ejectors plus heated air dryer
 - Low air pressure buzzer
 - Dash mounted air gauge
 - Spring loaded air release parking brake with air reserve tank
- ELECTRICAL
- Two (2) or three (3) 12 volt maintenance free batteries – 1400 (Minimum) CCA @ 0°F.
 - Gauges for electrical system, oil pressure, water temperature and tachometer
- CAB
- Conventional w/tilting hood and fenders
 - Dual 6"x16" heated corrosion resistant with integral convex or convex mounted below mirror
 - Cab grab handles left and right side
 - Cruise control
 - Two-speed wipers with intermittent feature
 - Adjustable high back cloth air suspension driver seat
 - Two man cloth passenger seat

TIRES - 11R 22.5 radial, all positions. All tires shall be all-season tread.

FUEL TANK - 50 gallon

OPTIONS:

1. Van Body Upfit: 18 ft. aluminum cargo van, 90 inch inside height, 92 inch inside width, aluminum or steel side and front posts, hat section type on 23-1/2" centers or Z section type on 16" centers, aluminum or steel rear corner posts, pre-painted white aluminum side and front panels, heavy duty aluminum lower rubrail, one-piece aluminum roof bonded to roof bows, interior sides and front lined full height with 1/4 in plywood, varnished. Two rows of "E" track, one at 24" above the floor, the other at 48" above the floor, standard floor, 1-1/8" thick laminated shiplap hardwood, forklift package to include 24" threshold plate, two LED covered dome lights with switch at rear, light in cab dash which activates when the body dome lights are on, plastic covered overhead door with heavy duty spring-load capable of being padlocked, 84"Hx87W (approximate) clearance with door in open position, all joints and seams thoroughly sealed with leakproof compounds, steps and grab handle at rear on right side and full width 6" rear dock bumper (not required if tailgate lift with dock bumpers is specified). All body lighting shall be LED.
2. Van Body Upfit: 22 ft. aluminum cargo van, meeting the same specification requirements as the 18 ft. body.
3. Van Body Upfit: 24ft. aluminum cargo van, meeting the same specification requirements as the 18 ft. body.
4. Van Body Upfit: 26 ft. aluminum cargo van, meeting the same specification requirements as the 18 ft. body.
5. Liftgate: 2,500 lb. load capacity tailgate lift 72 in. x 36 in. platform with 6 in. ramp flush with ground in lowered position. 12 volt electric hydraulic power with power cut-off switch in the cab. Heavy duty switch - Metal splash guard to protect switch, motor and pump. Provision for locking controls. Dual controls for tailgate operation. Heavy duty dock bumpers, compatible with tailgate lift, installed on the tailgate lift dock extension, one (1) each side. Reference: Waltco Model E25 RM or approved equal
6. Stake Body Upfit. Heavy-duty 16' x 96" (minimum) stake body. Platform constructed of seasoned and weather protected 1 1/8" hardwood or 2" (nominal) treated dense pine, tongue and groove or shiplap, attached to cross sills with flush, self-tapping screws. Seven (7) inch structural steel longsills with 12" center to center crossmember spacing. Steel platform rubrail. Removable, interlocking stake sections, 40" approximate height, constructed of formed metal with formed metal uprights and spring loaded rack connectors. Spring loaded mechanism to securely lock stake section into stake pocket. Frame mounted ICC step type rear bumper constructed of 4" structural steel channel. Federal DOT approved lighting. All body lighting shall be LED. Weld on reinforced bulkhead, 7 gauge steel, with expanded metal screen window cut out, approximate cab height

Class 6, Type 1A, Regular Cab, Dual Rear Wheel,
26,000# GVWR, Diesel Engine, Two Wheel Drive Cab and Chassis with Dump Body

- CHASSIS
- 25,500 lb. GVWR, not to exceed 26,000 lbs.
 - Wheelbase and cab-to-axle compatible with specified body
 - High tensile steel or reinforced frame, 80,000 psi, minimum
 - Standard front bumper
 - Two front tow hooks or eyes
- ENGINE
- Diesel
 - 240 HP/ 620 lb.-ft. torque minimum
 - Temperature controlled fan clutch
 - Engine block heater
 - Engine exhaust with vertical stack, rear of cab with curbside-turnout.
- TRANSMISSION
- Allison 3000 series automatic transmission or approved equal, with oil cooler and synthetic transmission fluid.
- FRONT AXLE
- 10,000 lb. Capacity
 - Front stabilizer bar, if available from the manufacturer.
 - HD shock absorbers
 - Power steering
- REAR AXLE
- 19,000 lb. Capacity with tapered leaf springs and auxiliary helpers and driver controlled locking differential or limited slip (traction control system not acceptable).
- BRAKES
- Anti-Lock brake system (ABS)
 - Full air in compliance with the most current FMVSS-121 requirements
 - Manual pull chain or lanyard operated moisture ejectors plus heated air dryer
 - Low air pressure buzzer
 - Dash mounted air gauge
 - Spring loaded air release parking brake with air reserve tank
- ELECTRICAL
- Two (2) or three (3) 12 volt maintenance free batteries - 1800 CCA @ 0°F.
 - Gauges for electrical system, oil pressure, water temperature and tachometer
 - 120 amp alternator (local installation acceptable)
- CAB
- Conventional w/tilting hood and fenders
 - Dual 6"x16" heated corrosion resistant with integral convex or convex mounted below mirror
 - Cab grab handles left and right side

- Cruise control
- Two-speed wipers with intermittent feature
- Adjustable high back cloth air suspension seat with fixed base cloth passenger seat.

TIRES - 11R 22.5 radial, all positions. Front tires to be extra strength highway tread. Rear tires to be on/off road traction tread.

FUEL TANK - 50 gallon

GRILL - Fixed (stationary) grill.

DUMP BODY: 10 ga. steel dump body, 10 ft. long - 7 ft. wide inside, 26 in. high steel sides, 32 in. high double acting, removable air operated tailgate, ½ cab protector, double gussets for upper sideboards, electric tarp system (Aero 575 or approved equal), OSHA safety props, back-up warning alarm in compliance with OSHA regulations and the most current SAE J-994 requirements for the type equipment specified. Amber comet flash strobe mounted on cab shield in swing bracket with brush guard. Recessed tail lights on corner posts. All body lighting shall be LED.

Body hoist: *Class 40 - 14-ton capacity with specified body, underbody double lift arm or arm/scissors type with subframe and double acting cylinder, cab mounted controls, positive backstop.

Hydraulics: Automatic transmission with hot shift PTO. A pump, cable cab control and a double acting valve shall be provided.

OPTIONS:

1. **Snowplow:** Full hydraulic (no electric motor), 10' wide by approximately 33" high. Plow to include deflector and blade guides. Blade to have replaceable high carbon cutting edge and cast-iron shoes. Reference: Western Heavyweight.

Hydraulics: Automatic transmission with hot shift PTO. Rexroth ATV-071 variable displacement pump, or approved equal with 30-gallon reservoir (minimum). The pressure compensated, load sensing hydraulic system shall operate all functions (plows, dump body and spreader) from a hydraulic system independently and simultaneously, without interruption of any hydraulic functions. Valving system of mobile design to withstand exposure to deicing chemicals and severe weather conditions *without* use of a watertight enclosure. Cast iron construction, horizontally stackable and serviceable without disassembly. Each section must have a built-in flow and pressure compensator to allow simultaneous operation of any piece of equipment regardless of any other system function (load sensing). Sections for hoist, plow lift and plow angle must be operated manually and be adjustable to 15 gpm. Spinner and auger sections must be incorporated into main valve assembly. Both auger and spinner sections are to be pilot operated and have manual overrides and must also be adjustable to 15 gpm. All valving must be mounted in one main valve assembly. Multiple valve assemblies are unacceptable. Reservoir to have suction line gate valve, oil sight gauge, breathable filler cap, ten-micron spin-on type filter and a baffle between return and outlet ports. Dextron type hydraulic oil. Suction, pressure and return hoses to be DAYCO SAE-100-R4 or 100-R42AT extreme duty hoses or approved equal.

2. Tailgate Spreader: T-304 stainless steel construction; screw auger, cross conveyor under tailgate type spreader with a full drop bottom trough and fully adjustable mechanical self-leveling spinner assembly. All welds to be continuous and shall be cleaned and deburred on all sharp edges. Overall dimensions approximately 96" long x 17" wide. Auger to be minimum 6" in diameter. Trough to be approximately 10" wide by 9" deep. Trough frame to be constructed of 7-gauge, 2 channel design running full length with welded-on offset spinner assembly mounting hardware. Trough cover to be 7 gauge full drop type with offset hinges and shall have a full 250 degree opening frame for easy clean out maintenance. Lifting handle and cover latch assemblies to be T304 stainless steel. Trough end plates to be offset ¼" plates with all cutouts for top cover latches, bottom trough latches, chain lifting eyes, bearing, motor and gearbox mounting plates. Bottom trough to be 7-gauge full drop-down design with stainless steel safety stop latches for easy and safe clean out and one person safe operation. Bottom trough to be mounted to top trough by means of a welded hinge design utilizing all T304 stainless steel hardware. Auger flighting shall be 6" diameter with 3/8" thick flighting mounted to a 2" pipe complete with a 1 ¼" diameter stub shaft UHMU expansion bushings in a side pipe ends (for ease of maintenance and screw auger removal). The auger shall be supported by two heavy duty industrial malleable iron two-hole flange ball bearings. Bi-directional flighting. Auger drive, whether direct, gearbox or chain/sprocket, must match up with specified spreader controls. The spinner assembly shall be a self leveling swing away all-in-one full height adjustable spinner assembly. The spinner device must have a minimum of 10" horizontal adjustment. Spinner assembly must have sufficient vertical adjustment to not hit the ground when the bed is raised. The spinner itself must be an 18" diameter polyurethane disc with molded bi-directional flights. The entire assembly must be able to swing fully out of the way to clear the bottom drop trough when trough is open. The spinner disc shall be direct drive by a Char-Lynn hydraulic motor.

3. High-Capacity Trailer Tow Package: Combo 2" ball and pintle combination hook 10,000 lb. Gross Trailer Weight shall be installed on a 3/4" thick steel pull plate properly supported to frame and crossmember; heavy duty "D" rings. Package to include trailer wire connections per SAE standards.

Class 6, Type 1B, Regular Cab, Dual Rear Wheel,
26,000# GVWR, Gas Engine, Two Wheel Drive Cab and Chassis with Van & Stake Bodies

- CHASSIS
 - 25,500 lb. GVWR, not to exceed 26,000 lbs.
 - Wheelbase and cab-to-axle compatible with specified body
 - High tensile steel or reinforced frame, 80,000 psi, minimum
 - Standard front bumper
 - Two front tow hooks or eyes

- ENGINE
 - Gasoline engine, manufacturer's standard with highest available horsepower and torque
 - Manufacturer's maximum capacity engine cooling available for model bid

- TRANSMISSION
 - Allison 2000 series automatic transmission or approved equal, with oil cooler and synthetic transmission fluid.

- FRONT AXLE
 - 8,000 lb. Capacity
 - Front stabilizer bar, if available from the manufacturer.
 - HD shock absorbers
 - Power steering

- REAR AXLE
 - 17,500 lb. Capacity with tapered leaf springs

- BRAKES
 - Four wheel antilock, hydraulic

- ELECTRICAL
 - Two (2) or three (3) 12 volt maintenance free batteries - 1800 CCA @ 0°F.
 - Gauges for electrical system, oil pressure, water temperature and tachometer

- CAB
 - Conventional w/tilting hood and fenders
 - Dual 6"x16" heated corrosion resistant with integral convex or convex mounted below mirror
 - Cab grab handles left and right side
 - Cruise control
 - Two-speed wipers with intermittent feature
 - Adjustable high back cloth air suspension driver seat
 - Two man cloth passenger seat

- TIRES
 - 11R 22.5 radial, all positions. All tires shall be all-season tread.

- FUEL TANK
 - 50 gallon

OPTIONS:

1. Van Body Upfit: 18 ft. aluminum cargo van, as close to 90 inch inside height as possible, 92 inch inside width, aluminum or steel side and front posts, hat section type on 23-1/2" centers or Z section type on

16" centers, aluminum or steel rear corner posts, pre-painted roof bonded to roof bows, interior sides and front lined full height with 3/8" plywood, varnished. Two rows of "E" track, one at 24" above the floor, the other at 48" above the floor, standard floor, 1-1/8" thick laminated shiplap hardwood, forklift package to include 24" threshold plate, two plastic covered dome lights with switch at rear, light in cab dash which activates when the body dome lights are on, plastic covered overhead door with heavy duty spring-load capable of being padlocked, 84"Hx87W (approximate) clearance with door in open position, all joints and seams thoroughly sealed with leakproof compounds, steps and grab handle at rear on right side and full width 6" rear dock bumper (not required if tailgate lift with dock bumpers is specified). All body lighting shall be LED.

2. Van Body Upfit: 22 ft. aluminum cargo van, meeting the same specification requirements as the 18 ft. body.
3. Van Body Upfit: 24 ft. aluminum cargo van, meeting the same specification requirements as the 18 ft. body.
4. Van Body Upfit: 26ft. aluminum cargo van, meeting the same specification requirements as the 18 ft. body.
5. Liftgate: 2,500 lb. load capacity tailgate lift 72 in. x 36 in. platform with 6 in. ramp flush with ground in lowered position. 12 volt electric hydraulic power with power cut-off switch in the cab. Heavy duty switch - Metal splash guard to protect switch, motor and pump. Provision for locking controls. Dual controls for tailgate operation. Heavy duty dock bumpers, compatible with tailgate lift, installed on the tailgate lift dock extension, one (1) each side. Reference: Waltco Model E25 RM or approved equal
6. Stake Body Upfit. Heavy-duty 16' x 96" (minimum) stake body. Platform constructed of seasoned and weather protected 1 1/8" hardwood or 2" (nominal) treated dense pine, tongue and groove or shiplap, attached to cross sills with flush, self-tapping screws. Seven (7) inch structural steel longsills with 18" crossmember spacing. Steel platform rubrail. Removable, interlocking stake sections, 40" approximate height, constructed of formed metal with formed metal uprights and spring loaded rack connectors. Spring loaded mechanism to securely lock stake section into stake pocket. Frame mounted ICC step type rear bumper constructed of 4" structural steel channel. Federal DOT approved lighting. All body lighting shall be LED. Weld on reinforced bulkhead, 7 gauge steel, with expanded metal screen window cut out, approximate cab height

Class 6, Type 1C, Regular Cab, Dual Rear Wheel, 26,000# GVWR, Diesel Engine, Two Wheel Drive Cab and Chassis with Van Bodies

- CHASSIS
- 26000 GVWR – Non CDL.
 - Wheelbase and cab to axle compatible with specified body.
 - Heat Treated Alloy Steel (120,000 PSI Yield) Frame Rails.
 - Front Bumper, Full Width Aerodynamic, Chrome Plated Steel.
 - Tow Hooks, Front Frame Mounted (2)
 - Fuel Tank, Non-polished Aluminum, 100 gal. Mounted Left side under cab.
 - Locking Fuel Cap.
 - Crossmember, Rear
- ENGINE
- Diesel
 - US21 emissions, 300hp @ 2000 RPM, 600 Torque, minimum, Governed Speed 73 mph.
 - Fan Clutch.
 - Exhaust System, Horizontal Frame Mounted Right Side w/ tail pipe.
 - Compression Brake by Jacobs w/ on/off switch dash mounted.
 - Block Heater, Phillips, 120-volt, socket Receptacle type mounted below driver’s door.
 - To include:
 - Anti-Freeze, extended life coolant: -40 degrees
 - Cold starting equipment.
 - Premium Type Heater Hoses.
 - Cruise Control, Electronic.
 - Engine Shutdown, Electric, Key Operated
 - Fuel Filter with Fuel/Water Separator
 - DEF Fluid Level Gauge.
 - Governor, Electronic
 - Oil Filter, Spin-On type
 - Radiator, Aluminum 2-row Cross Flow w/tank Oil Cooler.
 - Air Cleaner with Restriction Gauge, Air Cleaner Mounted.
 - Locking DEF cap.
- TRANSMISSION
- Allison 2500 Series or approved equal, Close Ratio, 6 speed overdrive Synthetic transmission fluid. Shift Control, Push-Button type.
- FRONT AXLE
- 10,000-lb Capacity
 - Front Suspension, Springs Parabolic Taper Leaf 10,000 Lb. With Heavy Duty Shock Absorbers
 - Power Steering.
- REAR AXLE
- 19,000-lb Capacity
 - 190 Wheel Ends
 - Driver controlled Locking Differential.
 - Air Ride Suspension with Heavy Duty Shock Absorbers.

- Suspension Air Control Valve, release control min cab.

BRAKES

- System, Air, Dual for Straight Truck Application
- Brake lines to be color and size coded Nylon.
- Drain Valves with pull chain or lanyard operated moisture ejectors.
- Heated Air Dryer.
- Automatic Slack Adjuster, both front and rear axles.
- Antilock Brake System (ABS)
- All Gages will be located within the instrument cluster.
- Parking brake control valves located on instrument panel.
- Front Brakes to be 15x4
- Rear Brakes to be 16.5x7 S-Cam.
- Air Compressor
- Dust Shields both Front and Rear.

ELECTRICAL

- 12-volt, Standard Equipment
- Starting Motor, Delco Remy 38MT.
- Alternator, 160 amp.
- Battery System, Maintenance-Free, Three (3) 12-volt 1950 CCA.
- Gauges for electrical system, oil pressure, water temperature, fuel, and Tachometer.

CAB

- Conventional w/tilting hood and fenders.
- Dual 7x16 Heated Mirrors, w/convex both sides, Power adjustment, 102” spacing, Breakaway style.
- Cab Grab Handles both sides.
- Fixed roof air deflector
- Cruise Control
- Intermittent windshield wipers.
- Driver’s seat, Air, High Back, Cloth, Right side arm rest.
- Passenger seat, two man, fixed back, cloth.
- Power windows, Power Door Locks
- Steering Column, Tilting and Telescoping.
- Integral Heater, Defroster, Air Conditioner.
- 3-point Lap, Shoulder Seat Belts. All positions.
- Radio, AM/FM CD w/ Stereo Speakers.
- CB Radio hook up, Header mounted w/ dual mirror mounted antennas.
- Horn, Air, frame mounted.
- Horn, City, Electric.
- Back Up Alarm, Electric 102db.
- Clearance/Marker lights LED.
- Body Company Electrical hook ups.
- Aerodynamic Package, if available.
- Paint, Red Single color.
- Safety Triangles, mounted

- First Aid Kit, mounted
- Fire Extinguisher, mounted

TIRES

- Front 11R22.5, load range G, Steering.
- Wheels, Front 22.5 Polished Aluminum 10 stud Hub Piloted
- Rear 11R22.5, load range G, drive Lug style.
- Wheels, Rear, Dual Disc 22.5 Polished Aluminum 10 stud Hub Piloted.

OPTIONS:

1. Van Body Upfit: 20 ft. FRP Cargo Van, color standard white.
As close to 90 in. inside height as possible, 94 in. inside width.
5/8" fiberglass reinforced plywood sides and fronts.
Non-skid inverted T flat floor. Drains located in front corners of box for cleaning, holes to be no larger than 1".
Chemlite scuff liner 48" up the side and front walls, with waterproof seal top and bottom.
.060" Translucent type roof bonded to heavy duty anti-sag roof bows and capped on all edges. Roof bows on 24" centers to eliminate any ice or water pooling.
Roof sheeting to be constructed of the Translucent type.
Two rows of "E" track, at 24" and 36" above the floor.
Four load bars for "E" track.
Forklift package.
Two plastic covered dome light with switch at rear, light in cab dash which activates when the body dome lights are on.
Plastic covered overhead door with heavy duty spring-load capable of being padlocked, 83"Hx85"W. approximately, clearance with door in open position.
All joints and seams thoroughly sealed with leak proof compounds.
Steps and grab handle at rear each side.
All body lighting shall be LED.
Utility box mounted under cargo van body, lockable, approximately 16" square. (Needed to carry antifreeze, oil, washer fluid, etc.)
Install customer supplied "Big House" decal package. To be install on Van Body and Truck Cab per customer drawings and photos.
2. Van Body Upfit: 24 ft. FRP cargo van, meeting the same specification requirements as the 20 ft. body.
3. Van Body Upfit: 26 ft. FRP cargo van, meeting the same specification requirements as the 20 ft. body.
4. Van Body Upfit: 28 ft. FRP cargo van, meeting the same specification requirements as the 20 ft. body.
5. Liftgate: 80"x60" Aluminum two-piece platform with leading wedge front.
4,000lb. capacity. Unit powered up or down. Power unit contained in weather tight enclosure. Power supply to be wired direct to batteries. (to conform with no idle laws.)
Toggle switch controls. Rear both sides accessible from ground height. Master disconnect switch with indicator light in cab of truck.

Handheld remote receptacle mounted inside rear corner of box. (Ref: Thieman Model LRST-40 Stowaway ST series or approved equal.
Heavy Duty rubber dock bumpers.

Class 8, Type 1, Regular Cab, Dual Rear Wheel,
37,000# GVWR, Diesel Engine, Two Wheel Drive Cab and Chassis

- CHASSIS**
- 37,000 lb. GVWR
 - Cab to axle, wheelbase and wheel cut to create the most maneuverable truck for the application
 - Front bumper
 - Two front tow hooks or eyes
 - High tensile steel single frame, 110,000 psi minimum
- ENGINE**
- Six (6) cylinder turbocharged after/inter cooled diesel
 - 250 HP (min) – 800 lbs./ft torque (min)
 - Temperature controlled fan clutch
 - Engine block heater
 - Engine exhaust with vertical stack, rear of cab with curbside-turnout.
 - Premium coolant and heater hoses
- TRANSMISSION**
- Automatic, Allison 3000 series or approved equal, 6 speed, with oil cooler and synthetic transmission fluid.
- FRONT AXLE**
- 14,000 lb. GAWR
 - Heavy duty front shock absorbers
 - Power steering
 - Oil seals
- REAR AXLE**
- 23,000 lb. GAWR with single leaf auxiliary helper spring
 - Ratio to allow 70 MPH @ efficient RPM
 - Limited slip differential, or driver controlled locking differential
 - Oil seals
- BRAKES**
- Full-air system, with four-channel antilock braking system.
 - Warning lights and buzzer
 - Manual pull chain or lanyard operated moisture ejectors plus heated air dryer
 - Automatic slack adjusters, front and rear
 - Dust shields
- ELECTRICAL**
- Two or Three 12 volt maintenance free batteries – totaling 1800 CCA @ 0°F (min)
 - Gauges for electrical system, oil pressure, water temperature and tachometer
 - 120 amp alternator (local installation acceptable)

CAB	<ul style="list-style-type: none"> - Conventional w/tilting hood and fenders - Corrosion resistant, heated west coast type mirrors - Two-speed wipers with intermittent feature - Right hand electric window - Cab grab handles left and right side - Air conditioning integral with the heater & defrosters - Cloth high back suspension seat with armrests for driver, ref. Bostrom Talladega 915 or approved equal, with two man passenger cloth seat. - Tinted glass, all windows - Dual electric horns - Air horn (to include snow shield if mounted on cab) - Cruise control - CB radio mounting plate with hot post, ground and wired single antenna
TIRES/FRONT	<ul style="list-style-type: none"> - 12R 22.5 16-ply radial, steering tread - 22.5 x 8.25 one piece hub piloted rims
TIRES/REAR	<ul style="list-style-type: none"> - 11R 22.5 16 ply radial, mud and snow tread - 22.5 x 8.25 one piece hub piloted rims
FUEL TANK	- 70-gallon total capacity <u>aluminum</u> , safety type with dash mounted gauge (dual tanks are acceptable)

OPTIONS:

1. Van Body Upfit: Twenty (20) foot aluminum van body, 96" ID height x 91" ID width. 1 1/8", minimum, laminated hardwood floor. Aluminum roof, .032 gauge minimum. Aerodynamic cast corner wind deflector. Overhead rear door. Knee irons all four corners of door opening. To include threshold plate, 24" minimum. "I" beam crossmembers, 3" minimum. Body lined with 1/2" plywood front and 3/8" plywood sides, minimum. Interior dome light, switch with indicator lamp in cab. Steel or recycled plastic scuff plates, sides and front, 12" minimum. Recessed "E" track front and sides, two rows (location to be specified by ordering agency ARO). Four (4) "E" shoring beams. All body lighting shall be LED.
2. Van Body Upfit: Twenty-four (24) foot aluminum van body, meeting the same specification requirements as the twenty foot body.
3. Van Body Upfit: Twenty-eight (28) foot FRP scubbable van body, 91 inch inside height, 94 inch inside width. 5/8" fiberglass reinforced plywood sides and front. 3/4" composite polymer floor. Chemlite scuff liner 48" up side and front walls, with waterproof seal top and bottom. .032" one-piece aluminum bonded to heavy duty anti-slag roof bows and capped on all edges. Roof bows on 24" centers to eliminate any ice or water pooling. Two rows of "E" track, at 24" and 36" above the floor. Four load bars for "E" track. Forklift package. Two plastic-covered dome lights with switch at rear, light in cab dash

which activates when the body dome lights are on. Plastic covered overhead door with heavy duty spring-load capable of being padlocked, 85" H x 88" W clearance with door in open position. All joints and seams thoroughly sealed with leakproof compounds. Steps and grab handle at rear each side.

4. Platform Body Upfit: Heavy-Duty 16'-6" platform body, full eight-(8) foot width, with no sides or stake holes. Body to include temporary removable/disposable bulkhead in order to comply with state law and FMVSS regulations. Platform floor constructed of ¼" aluminum plate welded to rubrail. Six (6) inch structural aluminum longitudinals, four (4) inch structural I-beam cross rails installed on twelve (12) inch centers. Sealed wiring, sealed shock mounted lights. Right side mount spare tire carrier. "ICC" bumper, minimum twenty-three (23) inches from ground level. Back-up warning alarm in compliance with OSHA regulations and the most current SAE J-994 requirements for the type equipment specified. Front and rear heavy duty mud flaps.
5. Liftgate: folding, approximately 80" x 57" platform, 3,300 lb. minimum capacity with dock bumpers and DOT under ride guard. Ref. Interlift ILFS 3300 or approved equal. Cab on/off switch. Enclosed power pack. Grab handles either side of door.
6. Liftgate: 80" x 60" aluminum (unpainted) two-piece platform with leading wedge front. 4,000 lb capacity. Unit powers up or down. Toggle switch controls. Heavy duty rubber dock bumpers. Cab mounted, lighted switch. Hand held remote mounted in rear corner of box. Reference: Thieman Model LRST-40 EST Stowaway ST Series.
7. Fuel Tank: Single 95-gallon aluminum, unpainted, safety type with dash mounted gauge (dual tanks unacceptable).

Class 8, Type 1A, Regular Cab, Dual Rear Wheel,
39,000# GVWR, Diesel Engine, Two Wheel Drive Cab and Chassis

- CHASSIS
- 39,000 lb. GVWR
 - Cab to axle, wheelbase and wheel cut to create the most maneuverable truck for the application
 - High tensile steel single frame, 110,000 psi minimum
 - Standard front bumper
 - Two front tow hooks or eyes
 - Integrated front frame extension for mounting a front PTO
- ENGINE
- Six (6) cylinder turbocharged after/inter cooled diesel
 - 300 HP (min), 860 lbs./ft torque (min)
 - Temperature controlled fan clutch
 - Engine block heater
 - Engine exhaust with vertical stack, rear of cab with curbside-turnout.
 - Premium coolant and heater hoses
- TRANSMISSION
- Allison 3000 series automatic transmission, (no substitute), with oil cooler and synthetic transmission fluid.
- FRONT AXLE
- 16,000 lb. GAWR
 - Heavy duty front shock absorbers
 - Power steering
 - Oil seals
- REAR AXLE
- 23,000 lb. GAWR with single leaf auxiliary helper spring
 - Ratio to allow 70 MPH @ efficient RPM
 - Limited slip differential, or driver controlled locking differential
 - Oil seals
- BRAKES
- Full-air system, with four-channel antilock braking system.
 - Warning lights and buzzer
 - Manual pull chain or lanyard operated moisture ejectors plus heated air dryer
 - Automatic slack adjusters, front and rear
- ELECTRICAL
- Three (3) 12 volt maintenance free batteries – totaling 1950 CCA @ 0°F (min)
 - Gauges for electrical system, oil pressure, water temperature and tachometer
 - 130 amp alternator (local installation acceptable)

CAB

- Conventional w/tilting hood and fenders
- Corrosion resistant, heated west coast type mirrors
- Down view mirror over passenger door
- Two-speed wipers with intermittent feature
- Right hand electric window
- Cab grab handles left and right side
- Air conditioning integral with the heater & defrosters
- Cloth high back suspension seat with armrests for driver, ref. Bostrom Talladega 915 or approved equal
- Fixed base bucket passenger seat. Cloth surface.
- Tinted glass, all windows
- Electric horn
- Air horn
- Cruise control
- CB radio mounting plate with hot post, ground and wired single antenna

TIRES (front & rear) - 315 80R 22.5 steering tread front with 11R 22.5 on/off road type tread rear, rated appropriately for GVWR, GAWR and application, mounted on one piece hub piloted rims

FUEL TANK - 65-gallon total capacity aluminum, safety type with dash mounted gauge (dual tanks are acceptable)

GRILL - Fixed (stationary) grill.

OPTIONS:

1. Steel Dump Body and Hydraulics Upfit: Galion 400-U, or approved equal, 120" length x 96" outside width (84" interior width) x 29" side height. 39" tailgate height. All 8 gauge high tensile strength steel construction. 6-8 cubic yard capacity; 5" @ 6.7# longills; 4" @ 4.5# crossmembers on 15" centers. 2" floor to side radius; 8 gauge full depth rear corner posts, 15" wide. 3/16" rear bolster, 9" deep. Pedestal type rear hinge on hoist assembly. Boxed top rail, tarp rail, inside step each side at front. Three steel vertical braces per side. Six panel reinforced tailgate with dirt shedding braces. Continuous welded construction. Coal door. Grip-step catwalk both sides of body. Forward braced steel splash shields mounted with adequate space for tire chains, bottom 6" of splash shield to be rubber. Half-cab shield with amber strobe lamp on self-leveling bracket with brush guard. Galion, or approved equal, U850C-DA, class 50, 17 ton capacity under body hoist, double acting, 50 degree dump angle. Body safety prop. Grip strut ladder, roadside front. Body to be grit blasted, high solids urethane primed and finish painted to match cab color. Under side of body to be continuously coated with uniform thickness coating to protect steel against rust. - Electric tarp system (Aero 575 or approved equal). Stop, turn, tail, backup lamps and strobe lights to be recessed in rear corner posts. Air operated Tailgate must be operated via an in-cab dash mounted switch (switch mounted under dash is not acceptable). All air piping and connections must be D.O.T. approved with .250 inch nylon tubing and brass compression fittings.

Spring-over-air or air to air is acceptable. LED marker and clearance lamps per DOT requirements. Back up lights shall be LED. A pump, cable cab control and a double acting valve shall be provided.

2. Plow Hitch: Plow frame with front frame extension shall be furnished and installed in accordance with Pennsylvania Department of Transportation hitch specifications for Class II dump trucks. Plow frame to be approved by the truck manufacturer's engineering department. Reference; Commonwealth of Pennsylvania, Department of Transportation drawing numbers: EQN-50, Low Profile Plow Mounting and EQN-124, Auxiliary Snow Plow Light Mounting (most current drawings available at the time of the bid opening).

-- OR --

Custom hitch with front frame extension as manufactured by a recognized snowplow manufacturer in such a way as to allow the hood of the chassis fitted with a tilt engine cowl and stationary grill to tilt forward over the upper portion of such an attachment and to be compatible with PennDOT style quick hitch plows. Attachment shall include ½" side plates reinforced and bolted as far back on the truck frame as feasible. Top cross member and vertical risers shall be fabricated from a minimum of 4" x 3" x ½" angle. Horizontal member to which the base of the lift cylinder pins shall be fabricated from a minimum 4" x 4" x ¾" angle. Push lug weldment 30.5" spacing for PennDOT quick hitch attachment shall be fabricated from ¾" x 4" x ¾" x 7" x 5/16" hardened steel (¾" steel for quick hitch coupler). 1.25" x 7" attachment pins must be vertically mounted and secured to hitch. The quick hitch arrangement also referred to as PennDOT style hitch pin jaws.

Hydraulics: Rexroth ATV-071 variable displacement pump, or approved equal with 30 gallon reservoir (minimum). The pressure compensated, load sensing hydraulic system shall operate all functions (plows, dump body and spreader) from a hydraulic system independently and simultaneously, without interruption of any hydraulic functions. Valving system of mobile design to withstand exposure to deicing chemicals and severe weather conditions *without* use of a watertight enclosure. Cast iron construction, horizontally stackable and serviceable without disassembly. Each section must have a built-in flow and pressure compensator to allow simultaneous operation of any piece of equipment regardless of any other system function (load sensing). Sections for hoist, plow lift and plow angle must be operated manually and be adjustable to 15 gpm. Spinner and auger sections must be incorporated into main valve assembly. Both auger and spinner sections are to be pilot operated and have manual overrides and must also be adjustable to 15 gpm. All valving must be mounted in one main valve assembly. Multiple valve assemblies are unacceptable. Reservoir to have suction line gate valve, oil sight gauge, breathable filler cap, ten micron spin-on type filter and a baffle between return and outlet ports. Dextron type hydraulic oil. Suction, pressure and return hoses to be DAYCO SAE-100-R4 or 100-R42AT extreme duty hoses, or approved equal.

3. Dump Body, Aluminum: Galion 405-AU, or approved equal, 120" length x 84" interior width x 30" side height. 40" tailgate height. All aluminum construction. 6-8 cubic yard capacity. ¼" aluminum floor with radius to sides. 3/16" aluminum front head. 1/8" aluminum sides, with 3 vertical braces per side. Heavy duty extruded aluminum box top rail and heavy duty extruded bottom rub rail, material shedding. 3/16" aluminum 9" full rear bolster. Stacked subframe with crossmembers on 12" centers. Subframe with 5" I-Beam with rubber insert landing pad and 4" "U" shaped extruded cross members. 3/16" aluminum, three panel double acting tailgate. Tarp friendly upper tailgate hardware. 3/8" tailgate spreader chains with 2 sets of banjo plates. Cast steel galvanized bolt-on, overshot lower tailgate hardware. - Electric tarp system (Aero 575 or approved equal), 3/16" aluminum cab protector. Full depth rear corner post. Continuous welded construction. Air operated Tailgate must be operated via an in-cab dash mounted switch (switch mounted under dash is not acceptable). All air piping and connections must be D.O.T. approved with .250 inch nylon tubing and brass

compression fittings. Spring-over-air or air to air is acceptable. LED marker and clearance lamps per DOT requirements. Back up lights shall be LED. Galion, or approved equal, U850C-DDA, class 50, 17 ton capacity under body hoist, double acting, 50 degree dump angle.

4. T-304 stainless steel tailgate spreader, screw auger, cross conveyor under tailgate type spreader with a full drop bottom trough and fully adjustable mechanical self-leveling spinner assembly. All welds to be continuous and shall be cleaned and deburred on all sharp edges. Overall dimensions approximately 96" long x 17" wide.

Auger to be minimum 6" in diameter. Trough to be approximately 10" wide by 9" deep. Trough frame to be constructed of 7-gauge, 2 channel design running full length with welded-on offset spinner assembly mounting hardware. Trough cover to be 7 gauge full drop type with offset hinges and shall have a full 250 degree opening frame for easy clean out maintenance. Lifting handle and cover latch assemblies to be T304 stainless steel. Trough end plates to be offset ¼" plates with all cutouts for top cover latches, bottom trough latches, chain lifting eyes, bearing, motor and gearbox mounting plates.

Bottom trough to be 7-gauge full drop-down design with stainless steel safety stop latches for easy and safe clean out and one-person safe operation. Bottom trough to be mounted to top trough by means of a welded hinge design utilizing all T304 stainless steel hardware. Auger flighting shall be 6" diameter with 3/8" thick flighting mounted to a 2" pipe complete with a 1 ¼" diameter stub shaft UHMU expansion bushings in a side pipe ends (for ease of maintenance and screw auger removal). The auger shall be supported by two heavy duty industrial malleable iron two-hole flange ball bearings. Bi-directional flighting. Auger drive, whether direct, gear-box or chain/sprocket, must match up with specified spreader controls. The spinner assembly shall be a self leveling swing away all-in-one full height adjustable spinner assembly. The spinner device must have a minimum of 10" horizontal adjustment. Spinner assembly must have sufficient vertical adjustment so as to not hit the ground when the bed is raised. The spinner itself must be an 18" diameter polyurethane disc with molded bi-directional flights. The entire assembly must be able to swing fully out of the way to clear the bottom drop trough when trough is open. The spinner disc shall be direct drive by a Char-Lynn hydraulic motor.

5. High-Capacity Trailer Tow Package: Gross Combination Weight Rating (GCWR) of 60,000 lbs. Combo 2" ball and pintle hook need to be rated for 20,000 lb. gross weight. Gross Trailer Weight shall be installed on a 3/4" thick steel pull plate properly supported to frame and crossmember; heavy duty "D" rings. Package to include trailer wire connections per SAE standards.

6. Rollback Body Upfit: Twenty-two (22) foot steel with treated hardwood floor, 5/4" apitong or approved equal. Dual lighted control stations, either side of truck bed. Ten (10)-ton weight capacity. Hydraulic rear stabilizer. Heavy-duty outside rubrail with stake pockets and pipe spools. Full height cab protector with solid bottom, screen top and chain rack. Cross member spacing, minimum 8" on center. Heavy-duty dovetail approach plate. Hydraulic winch with 20,000 lb. line pull, appropriately sized cable, tail chain and hook. One metal lockable toolbox mounted on the frame, under the body, at a convenient front position (approximately 18" x 18" x 36"). Chrome plated cylinder rods. Hydraulic oil reservoir tank with replaceable filter. Weather-resistant electrical system. Wireless remote control for winch. Emergency light bar mounted on cab-protector, separately switched and fused (direct wire from battery not acceptable), minimum 22" bar type or "wrecker's special" type integrating rear work lights for rollback deck. All body lights shall be LED. To include chassis change if needed.

Class 8, Type 1T TANDEM AXLE CAB AND CHASSIS, 64,000 LB. GVWR

- CHASSIS:**
- 64,000 lb. GVWR
 - Wheelbase and cab-to-axle compatible with specified body and application
 - 2.5 million in./lb. minimum RBM per rail
 - 120,000 psi, minimum high tensile frame
 - Steel bumper
 - Front tow hooks
 - 93 Gallon minimum aluminum fuel tank
- ENGINE:**
- Turbo charged diesel
 - 425 rated HP/1550 lb. -ft. Torque, minimum
 - Temperature controlled on/off fan clutch
 - Extended Life coolant and heater hoses with steel tubing
 - One stage air cleaner
 - Three (3) 12-volt batteries 1950 CCA @ 0 degrees F
 - 130-amp brushless alternator
 - Exhaust system - single horizontal muffler w/vert. pipe, aluminized steel exhaust stack and exhaust piping, single exhaust curbside-turnout, single aluminum exhaust shields
 - Heated fuel/water separator
 - Engine block heater
- TRANSMISSION:**
- Ten (10) speed manual with overdrive, double reduction in low gear (8LL), air shift. Torque capacity exceeding gross engine torque and ratios to provide maximum efficiency and performance when used with specified engine and rear axle. Reference: Fuller RTO(F)-16908LL or approved equal.
- CLUTCH:**
- Spicer 15.5" two plate dampened cerametallic plus extended lube line for greasable throw out bearing
 - Torque limiting type clutch brake
- FRONT AXLE:**
- 18,000 lb. minimum capacity -
 - Front automatic slack adjusters
 - Front brake dust shields
 - Heated air dryer
 - Visible oil seal caps
 - Oil seals
 - Heavy-duty shock absorbers
- REAR AXLE:**
- 46,000 lb. minimum capacity w/ 46,000 lb. walking beam suspension with transverse torque rods
 - Driver controlled locking differential, both axles (side-to-side)
 - Tandem axle interaxle differential lock (front-to-back)
 - Bendix ABS brake control system or equal

- Four chamber parking brake
- Engine compression brake
- Automatic rear slack adjusters
- Rear brake dust shields
- Oil seals, tandem axle

- LIGHTING:**
- Daytime running lights
 - Halogen headlights
 - All body lighting shall be LED

- RADIO/MISC:**
- AM/FM stereo
 - Radio antenna
 - Power and ground connections for CB radio
 - - CB hold down plate shall be mounted for convenience of driver
 - Power windows and door locks
 - Intermittent windshield wipers - single electric motor
 - Standard windshield washer reservoir
 - Keys, door lock and ignition same
 - Emergency warning triangle kit
 - Fire Extinguisher, mounted LH Side of driver's seat

- CAB EXTERIOR:**
- Day Conventional cab w/fiberglass tilting hood and integral fenders
 - Bug screen mounted behind grille
 - Air horn
 - Electric horn
 - Down view mirror over passenger door
 - Corrosion resistant heated west coast mirrors with non-heated convex mirrors
 - Tinted glass, all windows
 - Air ride cab

- CAB INTERIOR:**
- LH & RH arm rest mounted to door
 - Mat with foam back floor covering
 - Air conditioning integral with the heater
 - Highback air, 4 chamber lumbar full size cloth high-back driver's seat with armrests, or approved equal.
 - Full foam cushion adjustable cloth high-back seat for passenger.
 - Gauges for electrical system, oil pressure, water temperature and tachometer
 - Electronic idle control

- TIRES/FRONT:**
- 315/80R22.5 Rated for front axle rating tubeless radial tires
 - Rims/wheels - 22.5 x 9.0 hub piloted steel disc, standard color
 - Hubs - steel hub piloted

- TIRES/REAR:**
- 11R22.5 14 ply M& S tubeless radial tires
 - 22.5 x 8.25 one-piece hub piloted rims

- PAINT:
- Cab and body color to be selected by ordering agency from manufacturer's standard color choices.
 - Interior color for dash and seat color to be selected by the using agency after award from manufacturer's standard color choices.

OPTIONS:

1. Manual transmission upgrade: Manual transmission. Reference: Fuller 8LL Transmission.
2. Automatic Transmission: Allison 4500 series automatic transmission, (no substitute).
3. Steel Dump Body: Galion 500U/T or approved equal. 15' length x 7' interior width x 43" side height (53" tailgate height). 14 to 17 cu yd, 10 Gauge high tensile steel sides with material shedding boxed top rails, full depth 15" rear corner posts. Minimum of 5 vertical side braces, 10" front, center and rear board extension pockets and - electric tarp system (Aero 575 or approved equal).
8 Gauge high tensile steel floor with 2" floor to side radius; 10 Gauge high tensile steel front bulkhead with two bend top flange and two vertical structural angle reinforcements.
Half cab protector 90" wide, 8 gauge high tensile steel with a 4" double bend lip. Rear bolster to be one piece full width and full depth. All solid welded. 8 Gauge high tensile steel, 6 panel tailgate with full perimeter box bracing, two intermediate vertical braces and one intermediate horizontal brace and full width lower tailgate pin.
Heavy duty cast "tarp friendly" top tailgate hardware and cast overshot lower hardware and air tailgate release operated by in cab control mounted on console with dump controls.
Air operated Tailgate: Tailgate must be operated via an in-cab dash mounted switch (switch mounted under dash is not acceptable).
All lights meet FMVSS108 requirements with LED oval stop/tail/turn recessed in rear corner posts. All marker lights to be LED recessed and shock mounted, complete with Trucklite sealed wiring harness and junction box. Understructure to be stacked design with 7" structural longsills gusseted to 4" structural crossmembers on 12" centers. Lubricated front and rear cross shafts.
Galion FD-63128 Front telescopic hoist, or approved equal. Class 90, 26.5 ton capacity, Air PTO, direct mount pump, and cab controls. Body prop, electric back up alarm and body up light. DOT LED lights, reflectors & mud flaps.
Performance range and ton capacity as determined by NTEA Dump Body Hoist rating method. Hoist offered which is not listed in the latest edition of NTEA Dump Body Hoist Chart will not be accepted.
-SPECIAL NOTE: If transmission is the optional Allison then PTO shall be a Hot Shift in lieu of Air PTO.

A pump, cable cab control and a double acting valve shall be provided.
4. Plow Hitch: Plow frame with front frame extension shall be furnished and installed in accordance with Pennsylvania Department of Transportation hitch specifications for Class II dump trucks. Plow frame to be approved by the truck manufacturer's engineering department. Reference; Commonwealth of Pennsylvania, Department of Transportation drawing numbers: EQN-50, Low Profile Plow Mounting and EQN-124, Auxiliary Snow Plow Light Mounting (most current drawings available at the time of the bid opening).

-- OR --

Custom hitch with front frame extension as manufactured by a recognized snowplow manufacturer in such a way as to allow the hood of the chassis fitted with a tilt engine cowl and stationary grill to tilt forward over the upper portion of such an attachment and to be compatible with PennDOT style quick hitch plows. Attachment shall include ½" side plates reinforced and bolted as far back on the truck frame as feasible. Top cross member and vertical risers shall be fabricated from a minimum of 4" x 3" x ½" angle. Horizontal member to which the base of the lift cylinder pins shall be fabricated from a minimum 4" x 4" x ¾" angle. Push lug weldment 30.5" spacing for PennDOT quick hitch attachment shall be fabricated from ¾" x 4" x ¾" x 7" x 5/16" hardened steel (¾" steel for quick hitch coupler). 1.25" x 7" attachment pins must be vertically mounted and secured to hitch. The quick hitch arrangement also referred to as PennDOT style hitch pin jaws.

Hydraulics: Rexroth ATV-071 variable displacement pump, or approved equal with 30 gallon reservoir (minimum). The pressure compensated, load sensing hydraulic system shall operate all functions (plows, dump body and spreader) from a hydraulic system independently and simultaneously, without interruption of any hydraulic functions. Valving system of mobile design to withstand exposure to deicing chemicals and severe weather conditions *without* use of a watertight enclosure. Cast iron construction, horizontally stackable and serviceable without disassembly. Each section must have a built-in flow and pressure compensator to allow simultaneous operation of any piece of equipment regardless of any other system function (load sensing). Sections for hoist, plow lift and plow angle must be operated manually and be adjustable to 15 gpm. Spinner and auger sections must be incorporated into main valve assembly. Both auger and spinner sections are to be pilot operated and have manual overrides and must also be adjustable to 15 gpm. All valving must be mounted in one main valve assembly. Multiple valve assemblies are unacceptable. Reservoir to have suction line gate valve, oil sight gauge, breathable filler cap, ten micron spin-on type filter and a baffle between return and outlet ports. Dextron type hydraulic oil. Suction, pressure and return hoses to be DAYCO SAE-100-R4 or 100-R42AT extreme duty hoses, or approved equal.

5. Aluminum Dump Body: 15' aluminum dump body. Aluminum body shall be manufactured from grades 5454H34 and 60 61T6 aluminum. Body to have stacked construction.

- Electric tarp system (Aero 575 or approved equal)
- Longitudinals shall be 6" I-beam, minimum, 6.1 lb./foot, AI 6061T6.
- Crossmembers shall be 4" I-beam, minimum, 2.7 lb./foot, AI 6061T6.
- Rubber body sills between truck frame and body.
- Mylar insulation between all areas where aluminum and steel parts come together.
- Crossmembers to be gusseted with 4" x 6" x .375" aluminum at all cross members, outboard (inboard acceptable if necessary for clearance). 4" channel crossmembers acceptable at front and rear of body to finish the unit.
- Body floor shall be .375" thick, minimum, abrasion-resistant 5454H34 aluminum.
- Body sides shall be .25" thick, minimum, 5454H34 aluminum. Sides shall be 48" high, minimum with provision for side boards.
- Top rails to be fully boxed and completely closed by continuous welding, both sides. One piece construction for side top and bottom rails—no splices accepted. Running board width shall cover the outer rear dual tires and shall be full length of the body, both sides. A minimum of five vertical side braces and front posts shall be furnished with bottom drain holes with safety self cleaning type grid steps welded, both sides, between vertical braces, full length, and flush with outer edge of vertical braces.
- Aluminum tailgate to be manufactured from 5454H34 and 6061T6 aluminum.
- Front Body bulkhead: Minimum 0.15625 inch aluminum with a minimum of 12 inch above body sides.

- Rear corner posts: On both sides, full depth, on-piece construction from the top of the tailgate to the bottom of the rear bolster and free of holes.
- Rear bolster: One piece, full depth and full width.
- Spreader chain holders: Both sides, top and bottom of the rear corner posts.
- All body welding shall be full welding.
- Double acting five (5) panel tailgate with offset hinges.
- Two (2) "J" hooks welded to the tailgate for chain hangers.
- 1.25 inch diameter greaseable self-aligning top hinge pins with tapered end and with sufficient length for easy removal. Pins shall be affixed with chains to prevent loss and be non-rotating.
- Top hinge plate, aluminum, or steel with replaceable heavy-duty bushings and greaseable fittings. 0.375 inch spreader chain, non-rusting and able to accommodate 0.5 inch thick aluminum chain holder or 0.375 inch thick steel chain holder. Minimum edge distance 1.5 inch.
- Tailgate chains shall be covered with expandable braided sleeving of monofilament construction. Ref:Fairmont, (Tel: 304) 366-4600) Part No. Expando Grade DM –color black or yellow.
- Four (4) tailgate chain brackets. Two (2) on each side.
- Severe duty tailgate attaching brackets.
- Air operated Tailgate: Tailgate must be operated via an in-cab dash mounted switch (switch mounted under dash is not acceptable). All air piping and connections must be D.O.T. approved with .250 inch nylon tubing and brass compression fittings. Spring-over-air or air to air is acceptable.
- Coal chute gates with levers and operating handle. AISI Type 304 stainless steel.
- Full width cab shield with no offset for exhaust stack.
- Material: Minimum 0.15625 inch thick aluminum.
- Continuous welding on front and cab shield throughout.
- One-half (1/2) cab shield with a minimum of four (4) inch lip on front extending over cab.
- The body cab shield shall have sufficient clearance to insure that the shield will not hit the exhaust system when dumping on uneven terrain.
- Hoist: Custom 74-135, telescopic, class 120, 40 ton capacity, or approved equal. Air PTO direct mount pump with APSCO control valve in cab.

NOTE: All mounting procedures shall be in accordance with NTEA standards.

6. Three (3) coal chutes in tailgate (available with aluminum body only). Tailgate height to match side height with sideboards installed.

7. Rollback Body: Twenty-four (24) foot steel frame body with treated hardwood floor, apitong 5/4" or approved equal

- Fifteen (15) ton weight capacity, minimum
- Hydraulic rear stabilizer
- Heavy-duty outside rubrail with stake pockets and pipe spools
- Full-height cab protector with solid bottom, screen top and chain rack
- Emergency light bar mounted on cab-protector, separately switched and fused (direct wire from battery not acceptable), minimum 22" bar type or "wrecker's special" type integrating rear work lights for rollback deck.
- Work lights to illuminate rollback deck and bed controls
- Cross member spacing, maximum 8" on center
- Heavy-duty dove tail approach plate
- Hydraulic winch with 20,000 lb. line pull, appropriately sized cable, tail chain and hook

- Folding side ladder for deck access
- One (1) metal lockable toolbox mounted on the frame, under the body, at a convenient front position (approximately 18" x 18" x 36")
- Chrome plated cylinder rods
- Hydraulic oil tank with replaceable filter
- Weather resistant electrical system
- Remote control for winch
- All body lights shall be LED

8. High Capacity Trailer Tow Package: Tractor package with glad hands and electrical connection shall be provided. Pintle plate shall be made using minimum ¾ inch steel. It shall be inserted within the frame rails, directly in front of the rear light module, with sufficient clearance for body dump pin. It shall extend the full width of frame rails and extend a maximum of 5 inches below the frame rails. The lower portion of the plate shall be channeled towards the front of the vehicle, with proper gussets added between frame rails and plate. There shall be two (2) safety chain hooks mounted to the plate. Pintle Hook: 25-ton pintle hooks with spring loading, swivel design mounted to the hitch assembly. Reference Holland PH760, Buyers BP760A, Wallace Forge.