

SPECIFICATION

037700 - Truck, 11K, 2WD, Regular Cab & Chassis, Diesel Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 11,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Ratio to be selected at time of order from manufacturer's standard available ratios.

DEF Tank : Shall be mounted to not interfere with body installation. Any relocation shall be done in a professional manner using new materials.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater For water cooled engines, with water-proof plug and flush mounted In front sheet metal to drivers side of vehicle, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front stabilizer bar, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDP A with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Survey Body upfit, Specification 049700

Option : **Statewide Radio:**

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET	
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM	
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS	EQN-
127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE	
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING	
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST	

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between segments.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

037710 - Truck, 11K, 2WD, Regular Cab & Chassis, Gasoline Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 11,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Ratio to be selected at time of order from manufacturer's standard available ratios.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional gasoline engine, to include, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front stabilizer bar, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

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All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

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Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

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Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

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Option : **Statewide Radio:**

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Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT 6808 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT 6808 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

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EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securley fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accecability and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

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Laminate

rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

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Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

038100 - Steel Dump Body Upfit For Use With a 17K Chassis

Reference: Heil Yardbird, Omaha Standard Eagle, Galion / Godwin 100, Crysteel E Tipper, or prior approved equal.

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the dump body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The dump body dimensions shall cover the rear wheels. Any other applicable changes required to accommodate this type unit is the responsibility of the bidder. Frame rails shall be prepared by cleaning, priming and final painting. The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

Length of body shall be 9 Feet Minimum.

Capacity: 2 1/4 (approximate) cubic yards water level.

Side board pockets and tailgate height shall provide an additional carrying capacity.

The bulkhead shall be slotted, punched or checker-boarded to allow for visibility through the rear vehicle window.

There shall be a lever operated chute.

Body shall be fitted with a bed prop system, manufacture standard

Hoist cylinder shall have a lifting capacity of 9 tons. Minimum. Cylinder rod shall be chrome plated.

Hydraulic tank shall be a minimum of 20 Gallons working capacity. It is the responsibility of the vendor to insure all hydraulic functions can operate uninterrupted to include all plow, body, and spreader functions.

All points of movement such as lift arms, tailgate linkage, etc. shall be fitted with threaded grease fittings.

Upper telescopic cylinder pin shall have a remote grease fitting.

There shall be wheel chocks and holders per EQN-82. Holders can be mounted on the driver's side splash guards.

There shall be a ladder to access the dump bed on the drivers side. Shall have grab handles to provide three points of contact when entering the bed. Steps shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable. Grab handles shall be covered with non-skid paint (non-skid tape is unacceptable).

Tailgate shall have a height of 24 inches minimum. Shall be a double acting tailgate with offset hinges. Shall have two (2) "J" hooks welded to the tailgate for chain hangers. 1.25" diameter, greasable 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. The holding device for the tailgate shall be operated by a control lever with a safety holding chain and ring. Severe duty tailgate hardware shall be adjustable. Coal chute gate with levers and operating handle. Shall have four (4) tailgate banjo chain brackets, two (2) on each side, banjo brackets shall be a minimum of 3/8 inch thickness and be fully welded. Tailgate / spreader chains shall be 3/8 inch and covered with black expandable braided sleeving monofilament.

Rear corner posts On both sides, shall be full depth construction from the top of the tailgate to the bottom of the rear bolster and free of holes. Rear bolster shall be full depth and full width.

Cab shield shall cover half of the cab, continuously welded.

Body structure shall have 4" structural channel cross members of equal strength on 12" centers. The body and body sub-frame shall be reinforced to withstand SEVERE duty service. IE: Dump body up while spreading salt and anti-skid material, or excavation rip rap being dropped in the bed. Heavy gussets shall be furnished at all cross members on the outside. Where not possible, they will be furnished on the inside.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.
 Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.
 The Flaps in front of the rear tires shall extend downward 3/4 of the length of the rear splash guard/mud flap, with a 1/4 length, unmarked mud flap attached for the remaining distance.
 The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:

Whelen Light Kit Part # PADOTSY6, Kit contains the following lighting.

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. Light bar shall be mounted on swivel base as per EQN-210B. In no case shall the light bar be mounted on the roof of the vehicle. Light Bar, rear and side warning lights shall be on the same switch.
 2- LINZ6A lights to be grill mounted per EQN - 115
 2 - 5VA02ZAD Vertical Amber warning lights, to be mounted within the rear bolster facing rearward. Per EQN- 120U
 2 - 50R00XRD Vertical Red stop, turn, tail lights to be mounted within the rear bolster facing rearward Per EQN- 120U
 2 - 50A02ZAD Amber warning lights, to be mounted one each side of dump bed as Per EQN-120U
 1 - M6BUD Back-up light, to be mounted between frame rails where practical, including one M6 brush guard kit.
 5 - W441D Harness side mating Deutsch connectors.
 The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.
 1 - PFP1PA Tripod pedestal work light with coiled cord, remove mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Remote mount location to be determined at pilot model inspection.
 1 - Portable light retainer shall be supplied and mounting location determined at pilot model inspection
 Body builder to supply remaining stop / tail / turn, marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight. All Body lighting shall be LED.
 The Warning lights / Light bar shall have (1) lighted, permanently labeled toggle switch located in the dash controlling all I warning lights together
 Body wiring shall be Grote, Trucklite, or Prior Approved Equal.
 There shall be no splices outside of a sealed box or fixture.
 There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A
 A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body
 Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**
 All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.
 A rust preventative treatment shall be applied.
 Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,
Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the entire tailgate as per EQN-120N.
 ICC Rear Under ride Protector, hitch and ladders shall be painted black.

Hitch:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

	Buyers Products (216-974-888)	OR	Wallace Forge Company (800-328-1203)
Combo Ball Hitch W/ 2 inch Hard Chrome Ball:	BH8-2000		23071911
Pintle Mounting Plate:	PM-87		2200170 PADOT
Bolt Kit:	8520		2117240
Hitch Pin:	HP6253 WC		HP58412

Hydraulic System and Console

Reference: Lancaster Truck Body - LT.B. Control Pro, Component Technology - Electronic Control System SG1, Basic Hydraulic CS-105, Force America – SSC-VT, Crest – PHS Hydraulics

Shall be Central Hydraulic System – all functions to be operated by single pump, to include all plow body and spreader functions.

Hydraulic pump shall be a 17 GPM @ 1625 RPM belt driven gear pump with electric clutch.

Main valve shall be fully proportional electric over hydraulic

No hydraulic lines or valving to be installed in the cab.

Control console shall include all auxiliary light functions, clutch pump switch, rotating light, spinner spot, plow/headlights, main on/off, aux. mounted in between the drivers and passenger seat.

The spreader control shall be open loop, ground speed with blast, auger reverse and pause. Quick connect to remove spreader control (in summer mode).

Controls to be electric solenoid operated for plow hoist, plow angle, body hoist and spreader controls.

Drawings:

EQN-80A	Revised	11-29-06	sheet 1	WIRING DIAGRAM
EQN-82	Revised	07-23-09	sheet 1	CHOCK AND HOLDER
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120N	Revised	09-29-11	sheet 1	TAILGATE REFLECTIVE SHEETING / WARNING LIGHTS
EQN-120U	Revised	08-14-12	sheet 1	17K DUMP TAIL GATE LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-210B	Revised	01-07-10	sheet 3	HIGH VOLTAGE WARNING LIGHT (BRACKET)

Options**Spreader, Under Tailgate: (Installed)**

Direct drive (chain sprocket or gear-type unacceptable).

Quick attach hardware kit installed on dump body.

System properly sized to dump body/tailgate drop.

Salt calibration charts required for settings.

Spreader manufactured using stainless steel 304, unpainted, with all edges deburred and smooth.

There shall be a spinner spreader LED light.

Spinner shall not interfere with the visibility of the lower tail, turn or brake light.

Snow Plow, Adjustable Angle, or Straight reversible blade with a Minimum 9 foot moldboard: (Installed)

Reference: Boss, Power V, Western MVP Plus, Western Pro Plus or prior to bid approved equal).

Cab controls for angle and lift mechanism.

Moldboard markers (wands).

Auxiliary snow plow lights, turn signals, shall be hitch mounted and reinforced.

The snow plow shall be mounted on specified chassis with all accessories

Quick attach ends for hydraulic hoses.

Trip mechanism.

All electrical circuits shall be fused.

Front moldboard snow deflector.

Plow frame shall be furnished and installed and shall be in concurrence with the truck manufacturer's engineering approval. Factory snow plow prep package shall be supplied.

Snow plow lights shall be furnished and mounted.

Manufacturer's standard color.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration continuous welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

SPECIFICATION

038110 - Aluminum Dump Body Upfit For Use With a 17K Chassis

Reference: Heil Yardbird, Omaha Standard Eagle, Galion / Godwin 100, Crysteel E Tipper, or prior approved equal.

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the dump body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The dump body dimensions shall cover the rear wheels. Any other applicable changes required to accommodate this type unit is the responsibility of the bidder. Frame rails shall be prepared by cleaning, priming and final painting. The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

Length of body shall be 9 Feet Minimum.
 Floor Thickness shall be 0.1875" thick, minimum, abrasion-resistant aluminum 5454H32. Continuously welded to all cross members, side panels and longitudinal members. Area reinforcements where necessary.
 Capacity: 2 1/4 (approximate) cubic yards water level.
 Side board pockets and tailgate height shall provide an additional carrying capacity.
 The bulkhead shall be slotted, punched or checker-boarded to allow for visibility through the rear vehicle window.
 There shall be a lever operated chute.
 Body shall be fitted with a bed prop system, manufacture standard
 Hoist cylinder shall have a lifting capacity of 9 tons. Minimum. Cylinder rod shall be chrome plated.
 Hydraulic tank shall be a minimum of 20 Gallons working capacity. It is the responsibility of the vendor to insure all hydraulic functions can operate uninterrupted to include all plow, body, and spreader functions.
 All points of movement such as lift arms, tailgate linkage, etc. shall be fitted with threaded grease fittings.
 Upper telescopic cylinder pin shall have a remote grease fitting.
 There shall be wheel chocks and holders per EQN-82. Holders can be mounted on the driver's side splash guards.
 There shall be a ladder to access the dump bed on the drivers side. Shall have grab handles to provide three points of contact when entering the bed. Steps shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable. Grab handles shall be covered with non-skid paint (non-skid tape is unacceptable).
 Tailgate shall have a height of 24 inches minimum. Shall be a double acting tailgate with offset hinges. Shall have two (2) "J" hooks welded to the tailgate for chain hangers. 1.25" diameter, greasable 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. The holding device for the tailgate shall be operated by a control lever with a safety holding chain and ring. Severe duty tailgate hardware shall be adjustable. Coal chute gate with levers and operating handle, Door to be 304 Stainless steel. Shall have four (4) tailgate banjo chain brackets, two (2) on each side, banjo brackets shall be a minimum of 1/2 inch thickness and be fully welded. Tailgate / spreader chains shall be 3/8 inch and covered with black expandable braided sleeving monofilament.
 Rear corner posts On both sides, shall be full depth construction from the top of the tailgate to the bottom of the rear bolster and free of holes. Rear bolster shall be full depth and full width.
 Cab shield shall cover half of the cab, continuously welded.

Body structure shall have 4" structural channel cross members of equal strength on 12" centers. The body and body sub-frame shall be reinforced to withstand SEVERE duty service. IE: Dump body up while spreading salt and anti-skid material, or excavation rip rap being dropped in the bed. Heavy gussets shall be furnished at all cross members on the outside. Where not possible, they will be furnished on the inside.

Construction:

All body parts are to be electrically full welded into one integral body.
 For all threaded connections at least two (2) full threads shall be visible beyond the nut.
 The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.
 Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.
 The Flaps in front of the rear tires shall extend downward 3/4 of the length of the rear splash guard/mud flap, with a 1/4 length, unmarked mud flap attached for the remaining distance.
 The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:

Whelen Light Kit Part # PADOTSY6, Kit contains the following lighting.

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. Light bar shall be mounted on swivel base as per EQN-210B. In no case shall the light bar be mounted on the roof of the vehicle. Light Bar, rear and side warning lights shall be on the same switch.
 2- LINZ6A lights to be grill mounted per EQN - 115
 2 - 5VA02ZAD Vertical Amber warning lights, to be mounted within the rear bolster facing rearward. Per EQN- 120U
 2 - 50R00XRD Vertical Red stop, turn, tail lights to be mounted within the rear bolster facing rearward Per EQN- 120U
 2 - 50A02ZAD Amber warning lights, to be mounted one each side of dump bed as Per EQN-120U
 1 - M6BUD Back-up light, to be mounted between frame rails where practical, including one M6 brush guard kit.
 5 - W441D Harness side mating Deutch connectors.
 The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.
 1 - PFP1PA Tripod pedestal work light with coiled cord, remote mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Remote mount location to be determined at pilot model inspection
 Body builder to supply remaining stop / tail / turn, marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight. All Body lighting shall be LED.
 The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.
 Body wiring shall be Grote, Trucklite, or Prior Approved Equal.
 There shall be no splices outside of a sealed box or fixture.
 There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A
 A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body
 Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**
 All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.
 A rust preventative treatment shall be applied.
 Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,
Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the entire tailgate as per EQN-120N.
 ICC Rear Under ride Protector, hitch and ladders shall be painted black.

Hitch:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

	Buyers Products (216-974-888)	OR	Wallace Forge Company (800-328-1203)
Combo Ball Hitch W/ 2 inch Hard Chrome Ball:	BH8-2000		23071911
Pintle Mounting Plate:	PM-87		2200170 PADOT
Bolt Kit:	8520		2117240
Hitch Pin:	HP6253 WC		HP58412

Hydraulic System and Console

Reference: Lancaster Truck Body - LT.B. Control Pro, Component Technology - Electronic Control System SG1, Basic Hydraulic CS-105, Force America – SSC-VT, Crest – PHS Hydraulics

Shall be Central Hydraulic System – all functions to be operated by single pump, to include all plow body and spreader functions.

Hydraulic pump shall be a 17 GPM @ 1625 RPM belt driven gear pump with electric clutch.

Main valve shall be fully proportional electric over hydraulic

No hydraulic lines or valving to be installed in the cab.

Control console shall include all auxiliary light functions, clutch pump switch, rotating light, spinner spot, plow/headlights, main on/off, aux. mounted in between the drivers and passenger seat.

The spreader control shall be open loop, ground speed with blast, auger reverse and pause. Quick connect to remove spreader control (in summer mode).

Controls to be electric solenoid operated for plow hoist, plow angle, body hoist and spreader controls.

Drawings	EQN-80A	Revised	11-29-06	sheet 1	WIRING DIAGRAM
	EQN-82	Revised	07-23-09	sheet 1	CHOCK AND HOLDER
	EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
	EQN-120N	Revised	09-29-11	sheet 1	TAILGATE REFLECTIVE SHEETING / WARNING LIGHTS
	EQN-120U	Revised	08-14-12	sheet 1	17K DUMP TAIL GATE LIGHTING
	EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
	EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
	EQN-210B	Revised	01-07-10	sheet 3	HIGH VOLTAGE WARNING LIGHT (BRACKET)

Options**Spreader, Under Tailgate: (Installed)**

Direct drive (chain sprocket or gear-type unacceptable).

Quick attach hardware kit installed on dump body.

System properly sized to dump body/tailgate drop.

Salt calibration charts required for settings.

Spreader manufactured using stainless steel 304, unpainted, with all edges deburred and smooth.

There shall be a spinner spreader LED light.

Snow Plow, Adjustable Angle, or Straight reversible blade with a Minimum 9 foot moldboard: (Installed)

Reference: Boss, Power V, Western MVP Plus, Western Pro Plus or prior to bid approved equal).

Cab controls for angle and lift mechanism.

Moldboard markers (wands).

Auxiliary snow plow lights, turn signals, shall be hitch mounted and reinforced.

The snow plow shall be mounted on specified chassis with all accessories

Quick attach ends for hydraulic hoses.

Trip mechanism.

All electrical circuits shall be fused.

Front moldboard snow deflector.

Plow frame shall be furnished and installed and shall be in concurrence with the truck manufacturer's engineering approval. Factory snow plow prep package shall be supplied.

Snow plow lights shall be furnished and mounted.

Manufacturer's standard color.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessability and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration continuous welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

- Non-steel fittings on hydraulic pressure lines.
- Excessive use of elbows on hydraulic lines.
- Use of thread tape on hydraulic fittings.
- Use of galvanized fittings or components on hydraulic system.
- Improper hydraulic line size.
- Use of high-pressure hose for hydraulic suction line.
- Scotchlok-type wire splices.
- Non-insulated wire splices.
- Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.
- Improperly prepared, primed and painted surfaces.
- Non-fused electric circuits.
- Hydraulic circuits without pressure relief protection.

SPECIFICATION

038120 - Stainless Steel Dump Body Upfit For Use With a 17K Chassis

Reference: Heil Yardbird, Omaha Standard Eagle, Galion / Godwin 100, Crysteel E Tipper, Henderson Mark III or prior approved equal.

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note: " Stainless Steel shall be either 201 or 304 grade".

Note: All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the dump body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The dump body dimensions shall cover the rear wheels. Any other applicable changes required to accommodate this type unit is the responsibility of the bidder.

Frame rails shall be prepared by cleaning, priming and final painting.

The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

Length of body shall be 9 Feet Minimum.

Floor Thickness shall be 3/16 of an inch minimum.

Capacity: 2 (approximate) cubic yards water level.

Side board pockets and tailgate height shall provide an additional carrying capacity.

The bulkhead shall be slotted, punched or checker-boarded to allow for visibility through the rear vehicle window.

There shall be a lever operated chute.

Body shall be fitted with a bed prop system, manufacture standard

Hoist cylinder shall have a lifting capacity of 9 tons. Minimum. Cylinder rod shall be chrome plated.

Hydraulic tank shall be a minimum of 20 Gallons working capacity. It is the responsibility of the vendor to insure all hydraulic functions can operate uninterrupted to include all plow, body, and spreader functions.

All points of movement such as lift arms, tailgate linkage, etc. shall be fitted with threaded grease fittings.

Upper telescopic cylinder pin shall have a remote grease fitting.

There shall be wheel chocks and holders per EQN-82. Holders can be mounted on the driver's side splash guards.

There shall be a ladder to access the dump bed on the drivers side. Shall have grab handles to provide three points of contact when entering the bed. Steps shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable. Grab handles shall be covered with non-skid paint (non-skid tape is unacceptable).

Tailgate shall have a height of 24 inches minimum. Shall be a double acting tailgate with offset hinges. Shall have two (2) "J" hooks welded to the tailgate for chain hangers. 1.25" diameter, greasable 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. The holding device for the tailgate shall be operated by a control lever with a safety holding chain and ring. Severe duty tailgate hardware shall be adjustable. Coal chute gate with levers and operating handle. Shall have four (4) tailgate banjo chain brackets, two (2) on each side, banjo brackets shall be a minimum of 3/8 inch thickness and be fully welded. Tailgate / spreader chains shall be 3/8 inch and covered with black expandable braided sleeving monofilament.

Rear corner posts On both sides, shall be full depth construction from the top of the tailgate to the bottom of the rear bolster and free of holes. Rear bolster shall be full depth and full width.

Cab shield shall cover half of the cab, continuously welded.

Body structure shall have 4" structural channel cross members of equal strength on 12" centers. The body and body sub-frame shall be reinforced to withstand SEVERE duty service. IE: Dump body up while spreading salt and anti-skid material, or excavation rip rap being dropped in the bed. Heavy gussets shall be furnished at all cross members on the outside. Where not possible, they will be furnished on the inside.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.
 Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.
 The Flaps in front of the rear tires shall extend downward 3/4 of the length of the rear splash guard/mud flap, with a 1/4 length, unmarked mud flap attached for the remaining distance.
 The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:

Whelen Light Kit Part # PADOTSY6, Kit contains the following lighting.

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. Light bar shall be mounted on swivel base as per EQN-210B. In no case shall the light bar be mounted on the roof of the vehicle. Light Bar, rear and side warning lights shall be on the same switch.
 2- LINZ6A lights to be grill mounted per EQN - 115
 2 - 5VA02ZAD Vertical Amber warning lights, to be mounted within the rear bolster facing rearward. Per EQN-120U
 2 - 50R00XRD Vertical Red stop, turn, tail lights to be mounted within the rear bolster facing rearward Per EQN-120U
 2 - 50A02ZAD Amber warning lights, to be mounted one each side of dump bed as Per EQN-120U
 1 - M6BUD Back-up light, to be mounted between frame rails where practical, including one M6 brush guard kit.
 5 - W441D Harness side mating Deutch connectors.
 The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.
 1 - PFP1PA Tripod pedestal work light with coiled cord, remote mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Remote mount location to be determined at pilot model inspection.

 Body builder to supply remaining stop / tail / turn, marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight. All Body lighting shall be LED.
 The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.
 Body wiring shall be Grote, Trucklite, or Prior Approved Equal.
 There shall be no splices outside of a sealed box or fixture.
 There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A
 A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body
 Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**
 All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.
 A rust preventative treatment shall be applied.

 Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,
Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the entire tailgate as per EQN-120N.
 ICC Rear Under ride Protector, hitch and ladders shall be painted black.

Hitch:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

	Buyers Products (216-974-888)	OR	Wallace Forge Company (800-328-1203)
Combo Ball Hitch W/ 2 inch Hard Chrome Ball:	BH8-2000		23071911
Pintle Mounting Plate:	PM-87		2200170 PADOT
Bolt Kit:	8520		2117240
Hitch Pin:	HP6253 WC		HP58412

Hydraulic System and Console

Reference: Lancaster Truck Body - LT.B. Control Pro, Component Technology - Electronic Control System SG1, Basic Hydraulic CS-105, Force America – SSC-VT, Crest – PHS Hydraulics

Shall be Central Hydraulic System – all functions to be operated by single pump, to include all plow body and spreader functions.

Hydraulic pump shall be a 17 GPM @ 1625 RPM belt driven gear pump with electric clutch.

Main valve shall be fully proportional electric over hydraulic

No hydraulic lines or valving to be installed in the cab.

Control console shall include all auxiliary light functions, clutch pump switch, rotating light, spinner spot, plow/headlights, main on/off, aux. mounted in between the drivers and passenger seat.

The spreader control shall be open loop, ground speed with blast, auger reverse and pause. Quick connect to remove spreader control (in summer mode).

Controls to be electric solenoid operated for plow hoist, plow angle, body hoist and spreader controls.

Drawings:

EQN-80A	Revised	11-29-06	sheet 1	WIRING DIAGRAM
EQN-82	Revised	07-23-09	sheet 1	CHOCK AND HOLDER
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120N	Revised	09-29-11	sheet 1	TAILGATE REFLECTIVE SHEETING / WARNING LIGHTS
EQN-120U	Revised	08-14-12	sheet 1	17K DUMP TAIL GATE LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-210B	Revised	01-07-10	sheet 3	HIGH VOLTAGE WARNING LIGHT (BRACKET)

Options**Spreader, Under Tailgate: (Installed)**

Direct drive (chain sprocket or gear-type unacceptable).

Quick attach hardware kit installed on dump body.

System properly sized to dump body/tailgate drop.

Salt calibration charts required for settings.

Spreader manufactured using stainless steel 304, unpainted, with all edges deburred and smooth.

There shall be a spinner spreader LED light.

Snow Plow, Adjustable Angle, or Straight reversible blade with a Minimum 9 foot moldboard: (Installed)

Reference: Boss, Power V, Western MVP Plus, Western Pro Plus or prior to bid approved equal).

Cab controls for angle and lift mechanism.

Moldboard markers (wands).

Auxiliary snow plow lights, turn signals, shall be hitch mounted and reinforced.

The snow plow shall be mounted on specified chassis with all accessories

Quick attach ends for hydraulic hoses.

Trip mechanism.

All electrical circuits shall be fused.

Front moldboard snow deflector.

Plow frame shall be furnished and installed and shall be in concurrence with the truck manufacturer's engineering approval. Factory snow plow prep package shall be supplied.

Snow plow lights shall be furnished and mounted.

Manufacturer's standard color.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy access and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration continuous welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

SPECIFICATION

039700 - Shop Body Upfit With Under hood Air Compressor and Crane For Use With 11K and 17K Chassis

Reference: Stahl, Warner, Omaha Standard, or Knapheide, meeting these specifications.

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the foreman body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The foreman body dimensions shall cover the rear wheels. Any other applicable changes required to accommodate this type unit is the responsibility of the bidder.

The body shall have a front mounted bulkhead and shall be a minimum 14 gauge steel with punched or expandable metal area in alignment with the cab rear window. It shall be constructed of sufficient strength to eliminate damage to the rear of the cab. The bulkhead shall not interfere with the visibility of the third brake light.

Proposed bulkhead shall be reviewed for acceptance prior to pilot model inspection by the Equipment Division. The bulkhead shall have a forward extension mounted to the driver's side, of sufficient size to support the base of the warning light and this extension shall have a gusset.

Frame rails shall be prepared by cleaning, priming and final painting.

The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

There shall be 3 compartments on each side Overall compartment depth shall be 24 in. minimum.

One (1) curbside compartment shall be 70" long x 18" high or 76" long or 18" high minimum.

Piano hinge is unacceptable.

All door and compartment hinges shall be rod and nylon bushing or stainless steel heavy duty strap hinge with nylon or Teflon bushings and rubber door seals.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type. Chain or cable is acceptable on horizontal doors only.

All compartments shall be keyed alike, with no two individual completed units having the same keys.

The top left and right area's of the service body shall be covered with aluminum diamond deck (unpainted), and sealed all around.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type. Chain or cable straps on horizontal doors is unacceptable. Solid stock with a removable pin shall be utilized on all horizontal opening doors.

All compartments shall be keyed alike, with no two individual completed units having the same keys.

The heavy-duty rear bumper shall be constructed with a minimum of 1/8 inch reinforced steel. The size and strength shall be in accordance with the truck manufacturer's step design. The platform on top of the bumper shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable.

There shall be a stainless steel grab handle on each rear side of the utility body to assist the operator in entering and exiting the bed area, Non-skid paint or rubber shall be utilized, (non-skid tape is unacceptable). Ref: Non skid paint, Gamma Laboratories (Tel. 304-489-2828.)

All compartment floors shall be covered with yellow DriDek (Tel: 800-348-2398).

Any area likely to be stepped on shall be covered with non-skid paint.

Each compartment shall have the Vista Compartment lighting System (Tel: 219-264-0711). The "Krystal-Lite" lighting sections shall be mounted on the roof of each compartment and shall occupy at a minimum (approximately) ¾ of the compartments length. All compartments lighting shall be controlled by a single illuminated rocker switch mounted within easy reach of the driver.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.

Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.

The Flaps in front of the rear tires shall be constructed of 0.1406 in (10 gauge) steel.

The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:**Whelen Light Kit Part # PADOTSY5, Kit contains the following lighting.**

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. In no case shall the light bar be mounted on the roof of the vehicle.

2- LINZ6A lights to be grill mounted per EQN - 115

2 - M6AD Amber warning lights

2 - M6BTDD Stop, Tail, Turn lights

2 - M6BUD Back-up lights

2 - 11-486152-000 Vertical black flange housing assembly. Above warning, STT, and back up lights shall be mounted within housing per EQN - 120M.

2 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN - 120M. Side warning lights are to be wired in conjunction with above light bar.

2 - LINZ6 Grommet Kits

8 - W441D Harness side mating Deutch connectors.

The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.

1 - PFP1PA Tripod pedestal work light with coiled cord, remote mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Remote mount location will be determined at pilot inspection.

Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted.

Connections shall be water tight. All Body lighting shall be LED.

The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

There shall be no splices outside of a sealed box or fixture.

There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A

A color-coded electrical wiring chart and schematic shall accompany each body.

No wiring shall be left exposed or hung where it could be damaged by the elements or debris.

Paint:

Body priming and painting to ensure full coverage to all areas of the body

Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**

All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.

A rust preventative treatment shall be applied.

Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,

Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the rear of body as per EQN-120K.

ICC Rear Under ride Protector, hitch and grip strut ladders shall be painted black.

Front lower leading edge of cabinets shall have a minimum 12 inch high aluminum diamond plate for chip resistance.

HITCH:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

Buyers Products (216-974-888)

OR

Wallace Forge Company (800-328-1203)

Combo Ball
Hitch W/ 2
inch Hard
Chrome Ball:

BH8-2000

23071911

Pintle
Mounting
Plate:

PM-87

2200170 PADOT

Bolt Kit:

8520

2117240

Hitch Pin:

HP6253 WC

HP58412

Auxiliary Air System:

VMAC VR70 AIR COMPRESSOR SYSTEM, (there shall be a switch that only allows compressor to run when the vehicle is placed in park/neutral).

The installation of the compressor, tank and control console shall be properly mounted and bracketed.

The installation shall include compressor, tank, control console, all necessary hardware and brackets, and complete accessories.

There shall be two (2) 50 ft hoses, one with 0.250 in quick couplers complete and one on a housed (out of the weather, on the road side) reel (one only), spare 50 ft hose shall be shipped in the utility body.

Filter moisture separator, Chicago Pneumatic #CA-048360.

Line lubricator Chicago Pneumatic #CA-048361.

Pressure regulator Chicago Pneumatic #CA-048362 to adjust to OSHA approved levels of 30 psi.

Two (2) connectors Chicago Pneumatic #CA-048363.

The before-mentioned unit shall be assembled, mounted on a convenient service panel and shall incorporate a master gate valve.

The service end shall have a service "T" with (0.50 in) female and (0.250 in) female connectors.

Tank vibration mounts.

Crane:

Per EQN-120J, Ref: Autocrane 3203PRX-HW or equivalent. Original crane manufacturer's color is acceptable. Body manufacture is responsible for engineering body to incorporate mounting and use of the crane with out damage to the body.

Drawings:

EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-82	Revised	09-28-11	sheet 1	CHOCK AND HOLDER
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120J	Revised	09-28-11	sheet 1	9' SERVICE BODY
EQN-120K	Revised	09-28-11	sheet 1	TYPICAL REFLECTIVE SHEETING
EQN-120M	Revised	09-28-11	sheet 1	CREW CAB BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING

Options**Bed Liner:**

Center Cargo Area shall have a sprayed bed liner. Shall cover floor, both interior side panels, front interior panel and tailgate interior. Shall be a minimum of 150 Mils. Thickness. Material shall have No VOCs and be applied utilizing a high pressure spray. (Ref: Rhino, Linex or pre approved equal.)

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate

rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

SPECIFICATION

045660 - Truck, 17K, 2WD, Crew Cab & Chassis, Diesel Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Five (5) Passengers. 17,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman, Weld, Dump Body or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Rear Axle Ratio Shall be 4.88.

DEF Tank : Shall be mounted to not interfere with body installation. Any relocation shall be done in a professional manner using new materials.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater For water cooled engines, with water-proof plug and flush mounted In drivers side front sheet metal, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front and rear stabilizer bars, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDP A with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option: Forman Body upfit, Split door option Specification 050401

Option : Survey Body upfit, Specification 049700

Option : Weld Body upfit, Specification 045860

Option : Steel Dump Body upfit, Specification 038100

Option : Aluminum Dump Body upfit, Specification 038110

Option : Stainless Steel Dump Body upfit, Specification 038120

Option : Snow Plow upfit, Specification 038100, 038110, or 038120

Option : Spreader upfit, Specification 038100, 038110, or 038120

Option : Statewide Radio:

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper or not secured hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

045661 - Truck, 17K, 2WD, Crew Cab & Chassis, Gas Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Five (5) Passengers. 17,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman, Weld, Dump Body or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Rear Axle Ratio Shall be 4.88.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional gas engine, to include, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front and rear stabilizer bars, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Foreman Body upfit, Split Door option 050401

Option : Survey Body upfit, Specification 049700

Option : Weld Body upfit, Specification 045860

Option : Steel Dump Body upfit, Specification 038100

Option : Aluminum Dump Body upfit, Specification 038110

Option : Stainless Steel Dump Body upfit, Specification 038120

Option : Snow Plow upfit, Specification 038100, 038110, or 038120

Option : Spreader upfit, Specification 038100, 038110, or 038120

Option : Statewide Radio:

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminated rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

045800 - Truck, 17K, 2WD, Regular Cab & Chassis, Diesel Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 17,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman, Weld, Dump Body or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Rear Axle Ratio Shall be 4.88.

DEF Tank : Shall be mounted to not interfere with body installation. Any relocation shall be done in a professional manner using new materials.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater For water cooled engines, with water-proof plug and flush mounted In driver's side front sheet metal, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front and rear stabilizer bars, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDP A with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Foreman Body upfit, Split Door configuration, Specification 050401

Option : Survey Body upfit, Specification 049700

Option : Weld Body upfit, Specification 045860

Option : Steel Dump Body upfit, Specification 038100

Option : Aluminum Dump Body upfit, Specification 038110

Option : Stainless Steel Dump Body upfit, Specification 038120

Option : Snow Plow upfit, Specification 038100, 038110, or 038120

Option : Spreader upfit, Specification 038100, 038110, or 038120

Option : Statewide Radio:

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate

rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

045801 - Truck, 17K, 2WD, Regular Cab & Chassis, Gas Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 17,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman, Weld, Dump Body or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Rear Axle Ratio Shall be 4.88.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional gas engine, to include, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front and rear stabilizer bars, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Forman Body upfit, Split Door Configuration 050401

Option : Survey Body upfit, Specification 049700

Option : Weld Body upfit, Specification 045860

Option : Steel Dump Body upfit, Specification 038100

Option : Aluminum Dump Body upfit, Specification 038110

Option : Stainless Steel Dump Body upfit, Specification 038120

Option : Snow Plow upfit, Specification 038100, 038110, or 038120

Option : Spreader upfit, Specification 038100, 038110, or 038120

Option : Statewide Radio:

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminated rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

045802 - Truck, 17K, 2WD, Extended Cab & Chassis, Diesel Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 17,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman, Weld, Dump Body or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Rear Axle Ratio Shall be 4.88.

DEF Tank : Shall be mounted to not interfere with body installation. Any relocation shall be done in a professional manner using new materials.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater For water cooled engines, with water-proof plug and flush mounted In drivers side front sheet metal, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front and rear stabilizer bars, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Foreman Body upfit, Split Door Configuration 050401

Option : Survey Body upfit, Specification 049700

Option : Weld Body upfit, Specification 045860

Option : Steel Dump Body upfit, Specification 038100

Option : Aluminum Dump Body upfit, Specification 038110

Option : Stainless Steel Dump Body upfit, Specification 038120

Option : Snow Plow upfit, Specification 038100, 038110, or 038120

Option : Spreader upfit, Specification 038100, 038110, or 038120

Option : Statewide Radio:

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

045803 - Truck, 17K, 2WD, Extended Cab & Chassis, Gas Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 17,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman, Weld, Dump Body or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Rear Axle Ratio Shall be 4.88.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional gas engine, to include, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front and rear stabilizer bars, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Foreman Body upfit, Split Door Configuration, Specification 050401

Option : Survey Body upfit, Specification 049700

Option : Weld Body upfit, Specification 045860

Option : Steel Dump Body upfit, Specification 038100

Option : Aluminum Dump Body upfit, Specification 038110

Option : Stainless Steel Dump Body upfit, Specification 038120

Option : Snow Plow upfit, Specification 038100, 038110, or 038120

Option : Spreader upfit, Specification 038100, 038110, or 038120

Option : Statewide Radio:

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminated rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

045860 - Weld Body Upfit For Use With a 17K Chassis

Reference: Crest, PA weld truck arrangement (9/13/93) or prior to bid approved equal. Per EQN-120F

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note: All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the foreman body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The foreman body dimensions shall cover the rear wheels.

Any other applicable changes required to accommodate this type unit is the responsibility of the bidder.

The body shall have a front mounted bulkhead and shall be a minimum 14 gauge steel with punched or expandable metal area in alignment with the cab rear window. It shall be constructed of sufficient strength to eliminate damage to the rear of the cab. The bulkhead shall not interfere with the visibility of the third brake light.

Proposed bulkhead shall be reviewed for acceptance prior to pilot model inspection by the Equipment Division. The bulkhead shall have a forward extension mounted to the driver's side, of sufficient size to support the base of the warning light and this extension shall have a gusset.

Frame rails shall be prepared by cleaning, priming and final painting.

The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

Forward right cabinet shall be large enough to accommodate an acetylene tank and oxygen tank, minimum height 55 inches, minimum width 24 inches, with hose rack on the inside door.

Cabinet shall be properly vented and all bottle-securing hardware included.

Dimension "A" shall accommodate the larger dimension of a Big Blue 50D or a Hobart Mega Arc 4030D.

The body shall be designed and shall include everything shown in EQN-120F, except the arc welder assembly, and acetylene rig.

The left rear cabinet shall have a pull out drawer for welding rod, minimum 6 inch high x width and depth of cabinet.

There shall be a drip rail above all doors.

Piano hinge is unacceptable.

All door and compartment hinges shall be rod and nylon bushing or stainless steel heavy duty strap hinge with nylon or Teflon bushings and rubber door seals.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type. Chain or cable is acceptable on horizontal doors only.

All compartments shall be keyed alike, with no two individual completed units having the same keys.

The top left and right area's of the service body shall be covered with aluminum diamond deck (unpainted), and sealed all around.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type.

All compartments shall be keyed alike, with no two individual completed units having the same keys.

The heavy-duty rear bumper shall be constructed with a minimum of 1/8 inch reinforced steel. The size and strength shall be in accordance with the truck manufacturer's step design. The platform on top of the bumper shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable.

There shall be a stainless steel grab handle on each rear side of the utility body to assist the operator in entering and exiting the bed area, Non-skid paint or rubber shall be utilized, (non-skid tape is unacceptable). Ref: Non skid paint, Gamma Laboratories (Tel. 304-489-2828.)

All compartment floors shall be covered with yellow DriDek (Tel: 800-348-2398).

Any area likely to be stepped on shall be covered with non-skid paint.

Each compartment shall have the Vista Compartment lighting System (Tel: 219-264-0711). The "Krystal-Lite" lighting sections shall be mounted on the roof of each compartment and shall occupy at a minimum (approximately) ¾ of the compartments length. All compartments lighting shall be controlled by a single illuminated rocker switch mounted within easy reach of the driver.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.

Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.

The Flaps in front of the rear tires shall be constructed of 0.1406 in (10 gauge) steel.

The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:**Whelen Light Kit Part # PADOTSY5, Kit contains the following lighting.**

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. In no case shall the light bar be mounted on the roof of the vehicle.

2- LINZ6A lights to be grill mounted per EQN - 115

2 - M6AD Amber warning lights

2 - M6BTDD Stop, Tail, Turn lights

2 - M6BUD Back-up lights

2 - 11-486152-000 Vertical black flange housing assembly. Above warning, STT, and back up lights shall be mounted within housing per EQN - 120M.

2 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN - 120M. Side warning lights are to be wired in conjunction with above light bar.

2 - LINZ6 Grommet Kits

8 - W441D Harness side mating Deutch connectors.

The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.

1 - PFP1PA Tripod pedestal work light with coiled cord, remote mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Remote mount location shall be determined at pilot model inspection.

Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted.

Connections shall be water tight. All Body lighting shall be LED.

The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

There shall be no splices outside of a sealed box or fixture.

There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A

A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body

Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont 6808 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**

All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.

A rust preventative treatment shall be applied.

Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,

Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the rear of body as per EQN-120K.

ICC Rear Under ride Protector, hitch and grip strut ladders shall be painted black.

Front lower leading edge of cabinets shall have a minimum 12 inch high aluminum diamond plate for chip resistance.

Hitch:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

Buyers Products (216-974-888)

OR

Wallace Forge Company (800-328-1203)

Combo Ball
Hitch W/ 2
inch Hard
Chrome Ball:

BH8-2000

23071911

Pintle
Mounting
Plate:

PM-87

2200170 PADOT

Bolt Kit:

8520

2117240

Hitch Pin:

HP6253 WC

HP58412

Auxiliary Air System:

VMAC VR70 AIR COMPRESSOR SYSTEM, (there shall be a switch that only allows compressor to run when the vehicle is placed in park/neutral).

The installation of the compressor, tank and control console shall be properly mounted and bracketed.

The installation shall include compressor, tank, control console, all necessary hardware and brackets, and complete accessories.

There shall be two (2) 50 ft hoses, one with 0.250 in quick couplers complete and one on a housed (out of the weather, on the road side) reel (one only), spare 50 ft hose shall be shipped in the utility body.

Filter moisture separator, Chicago Pneumatic #CA-048360.

Line lubricator Chicago Pneumatic #CA-048361.

Pressure regulator Chicago Pneumatic #CA-048362 to adjust to OSHA approved levels of 30 psi.

Two (2) connectors Chicago Pneumatic #CA-048363.

The before-mentioned unit shall be assembled, mounted on a convenient service panel and shall incorporate a master gate valve.

The service end shall have a service 'T' with (0.50 in) female and (0.250 in) female connectors.

Tank vibration mounts.

Crane:

Per EQN-120F, Ref: Autocrane 2003--HW series or equal. Original crane manufacturer's color is acceptable. Body manufacture is responsible for engineering body to incorporate mounting and use of the crane with out damage to the body.

Drawings:

EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-82	Revised	09-28-11	sheet 1	CHOCK AND HOLDER
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120F	Revised	09-28-11	sheet 1 & 2	WELD BODY STEEL
EQN-120K	Revised	09-28-11	sheet 1	TYPICAL REFLECTIVE SHEETING
EQN-120M		09-28-11	sheet 1	CREW CAB BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING

Options**Bed Liner:**

Center Cargo Area shall have a sprayed bed liner. Shall cover floor, both interior side panels, front interior panel and tailgate interior. Shall be a minimum of 150 Mils. Thickness. Material shall have No VOCS and be applied utilizing a high pressure spray. (Ref: Rhino, Linex or pre approved equal.)

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securley fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accecability and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

SPECIFICATION

046000 - Truck, 11K, 2WD, Extended Cab & Chassis, Diesel Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 11,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Ratio to be selected at time of order from manufacturer's standard available ratios.

DEF Tank : Shall be mounted to not interfere with body installation. Any relocation shall be done in a professional manner using new materials.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater For water cooled engines, with water-proof plug and flush mounted In drivers side front sheet metal, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front stabilizer bar, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Foreman Body upfit, Split door option, Specification 050401

Option : Survey Body upfit, Specification 049700

Option : **Statewide Radio:**

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

046010 - Truck, 11K, 2WD, Extended Cab & Chassis, Gasoline Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 11,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Ratio to be selected at time of order from manufacturer's standard available ratios.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional gasoline engine, to include, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front stabilizer bar, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Foreman Body upfit, Split door option Specification 050401

Option : Survey Body upfit, Specification 049700

Option : **Statewide Radio:**

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securley fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accecability and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate

rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

046100 - Truck, 11K, 2WD, Crew Cab & Chassis, Diesel Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Five (5) Passengers. 11,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Ratio to be selected at time of order from manufacturer's standard available ratios.

DEF Tank : Shall be mounted to not interfere with body installation. Any relocation shall be done in a professional manner using new materials.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater For water cooled engines, with water-proof plug and flush mounted In driver's side front sheet metal, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front stabilizer bar, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Foreman Body upfit, Split door configuration, Specification 050401

Option : Survey Body upfit, Specification 049700

Option : **Statewide Radio:**

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

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EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate

rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

046110 - Truck, 11K, 2WD, Crew Cab & Chassis, Gasoline Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Chassis Only, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Five (5) Passengers. 11,000 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 9 Foot Minimum, Flatbed, Service, Shop, Foreman or Survey Body.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Ratio to be selected at time of order from manufacturer's standard available ratios.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional gasoline engine, to include, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front stabilizer bar, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

The following equipment shall be supplied / installed

There shall be a step bar (Westin Part # 251335 or Equal) in Black, must be length of cab entry area on both sides. (Installed)

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

There shall be a 7 inch dome light with switch, Ref: Truck-Lite #80354, or approved equal. Installed centered, over the front seat, capable of operating with the Ignition off.

There shall be a warning light: Whelen Model R10HDPA with Deutsch connectors. Supplied and delivered in the cab.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

Unit shall be fitted with temporary mud flaps that shall remain intact.

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Four Wheel Drive.

Option : To be equipped with Snow Plow Prep package.

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Road Watch road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Vaisala road/air temperature system. Located on the left front fender. Gauge to be neatly mounted in the dash within the drivers view or installed with control system integrated temperature display.

Option : Install FLOCS system as per EQN: 351A.

Option : Flatbed Body upfit, Specification 046900

Option : Service Body upfit, Specification 048900

Option : Shop Body upfit, Specification 039700

Option : Foreman Body upfit, Specification 050400

Option : Foreman Body upfit, Split door configuration, Specification 050401

Option : Survey Body upfit, Specification 049700

Option : **Statewide Radio:**

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30 ampere constant hot circuit, (1) lug shall be a 10 ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

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EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber

SPECIFICATION

046900 - Heavy Duty Flat Bed Body Upfit For Use With 11K and 17K Chassis

Reference: Hostettler Truck Body 9 FT. Flatbed made for PENNDOT or, Approved Equal.

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:

The flatbed body dimensions shall cover the rear wheels.
Any other applicable changes required to accommodate this type unit is the responsibility of the bidder.
The body shall be designed to accommodate stake body sides
(Note: Jigs are available by contacting the Equipment Division at 717-783-1395).
There shall be a front mounted bulkhead.

Body - Installation:

It shall be the responsibility of the successful vendor to have this flatbed mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants.
The Department will furnish the vendor with sideboard jigs to ensure pocket dimension uniformity. Upon completion of the pilot model, this set of sides shall be returned to the Equipment Division at 17th Street & Arsenal Blvd., Harrisburg, PA to be utilized on all future specifications to ensure the Department of flatbed stake size standardization. (Phone (717) 783-2371).
The bulkhead shall be a minimum 14 gauge steel with punched or expandable metal area in alignment with the cab rear window. It shall be constructed of sufficient strength to eliminate damage to the rear of the cab. The bulkhead shall not interfere with the visibility of the third brake light.
Proposed bulkhead shall be reviewed for acceptance prior to pilot model inspection by the Equipment Division. The bulkhead shall have a forward extension mounted to driver's side, of sufficient size to support the base of the warning light and this extension shall have a gusset.

Floor - Wood:

Reference for pine floor: Southern Pine Inspection Bureau (SPIB).
Pre-dried lumber. Vacuum process or kiln dried).
Pressure Treated (AWPA). Tongue and groove male and female groove same size, minimum 2 in thick, nominal.

LUMBER (PRESSURE TREATED) SPECIFICATIONS:

Pressure treated lumber shall be No. 1 stress rated Southern Pine.

Construction:

All body parts are to be electrically full welded into one integral body.
No welding inside the stake pockets.
Gusset plates shall be welded on both the sides.
For all threaded connections at least two (2) full threads shall be visible beyond the nut.
The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.
Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.
The Flaps in front of the rear tires shall be constructed of 0.1406 in (10 gauge) steel.
The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:

Whelen Light Kit Part # PADOTSY7, Kit contains the following lighting.

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. In no case shall the light bar be mounted on the roof of the vehicle.
2- LINZ6A lights to be grill mounted per EQN - 115
2 - M6AD Amber warning lights with brush guard mounted to the rear of bed per EQN - 120L
2 - M6BTTD Stop, Tail, Turn lights with brush guard per EQN - 120L
2 - M6BUD Back-up lights with brush guards per EQN - 120L
2 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN - 120L. Side warning lights are to be wired in conjunction with above light bar.
2 - LINZ6 Grommet Kits
8 - W441D Harness side mating Deutch connectors.
The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.
1 - PFP1PA Tripod pedestal work light with coiled cord and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck.

Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted.
Connections shall be water tight. All Body lighting shall be LED.
The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.
Body wiring shall be Grote, Trucklite, or Prior Approved Equal.
There shall be no splices outside of a sealed box or fixture.
There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A
A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body
 Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) It will be the responsibility of the successful vendor to ensure color of the body matches the cab.
 All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.
 A rust preventative treatment shall be applied.
 Wood surface shall be unpainted.
 Body rail shall have conspicuity tape per EQN-127A.

HITCH:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

Buyers Products (216-974-888)

OR

Wallace Forge Company (800-328-1203)

Combo Ball

Hitch W/ 2

inch Hard

Chrome Ball:

BH8-2000

23071911

Pintle

Mounting

Plate:

PM-87

2200170 PADOT

Bolt Kit:

8520

2117240

Hitch Pin:

HP6253 WC

HP58412

DRAWINGS:

EQN-2C	Revised	08-01-08	sheet 1-4	TYPICAL FLAT BED BODY
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120L		09-28-11	sheet 1	FLAT BED BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING

Options**Installation Practices**

All lights shall meet all Federal and State regulations.
 All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.
 All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.
 All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.
 All electrical connections shall be treated with di-electric grease.
 All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securement.
 All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.
 Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials. Any
 place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber
 is unacceptable.
 All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.
 All corners shall be angled or rounded for safety.
 All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.
 Excessive use of elbows on hydraulic lines.
 Use of thread tape on hydraulic fittings.
 Use of galvanized fittings or components on hydraulic system.
 Improper hydraulic line size.
 Use of high-pressure hose for hydraulic suction line.
 Scotchlok-type wire splices.
 Non-insulated wire splices.
 Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.
 Improperly prepared, primed and painted surfaces.
 Non-fused electric circuits.
 Hydraulic circuits without pressure relief protection.

SPECIFICATION

048900 - Service Body Upfit For Use With 11K and 17K Chassis

Reference: Stahl, Warner, Omaha Standard, or Knapheide, meeting these specifications.

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the service body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The service body dimensions shall cover the rear wheels. Any other applicable changes required to accommodate this type unit is the responsibility of the bidder.

The body shall have a front mounted bulkhead and shall be a minimum 14 gauge steel with punched or expandable metal area in alignment with the cab rear window. It shall be constructed of sufficient strength to eliminate damage to the rear of the cab. The bulkhead shall not interfere with the visibility of the third brake light.

Proposed bulkhead shall be reviewed for acceptance prior to pilot model inspection by the Equipment Division. The bulkhead shall have a forward extension mounted to the driver's side, of sufficient size to support the base of the warning light and this extension shall have a gusset.

Frame rails shall be prepared by cleaning, priming and final painting.

The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

There shall be 3 compartments on each side. Overall compartment depth shall be 24 in. minimum.

One (1) curbside compartment shall be 70" long x 18" high or 76" long or 18" high minimum.

There shall be a drip rail above all doors.

Piano hinge is unacceptable.

All door and compartment hinges shall be rod and nylon bushing or stainless steel heavy duty strap hinge with nylon or Teflon bushings and rubber door seals.

The top left and right area's of the service body shall be covered with aluminum diamond deck (unpainted), and sealed all around.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type.

If steel lock straps are used for a limiting device, they shall be detachable by use of a hitch pin or other easily removeable device to allow door to open fully. Rubber

stops shall be installed on body under all horizontal doors opening down to keep them from contacting the sides of the body.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type.

Horizontal compartment doors shall have a removable limiting device, steel lock strap type.

All compartments shall be equipped with Stainless steel bolt on latches, Rivit on latches are unexceptable

All compartments shall be keyed alike, with no two individual completed units having the same keys.

The heavy-duty rear bumper shall be constructed with a minimum of 1/8 inch reinforced steel. The size and strength shall be in accordance with the truck manufacturer's step design. The platform on top of the bumper shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable.

There shall be a stainless steel grab handle on each rear side of the utility body to assist the operator in entering and exiting the bed area, Non-skid paint or rubber shall be utilized, (non-skid tape is unacceptable). Ref: Non skid paint, Gamma Laboratories (Tel. 304-489-2828.)

Two, 2" deep x 12" long steps hung by 6" long 3/4" diameter cables shall be mounted, one under each side of bumper. Both hung 12" in from edge of bumper.

All compartment floors shall be covered with yellow DriDek (Tel: 800-348-2398).

Any area likely to be stepped on shall be covered with non-skid paint.

Each compartment shall have the Vista Compartment lighting System (Tel: 219-264-0711). The "Krystal-Lite" lighting sections shall be mounted on the roof of each compartment and shall occupy at a minimum (approximately) ¼ of the compartments length. All compartments lighting shall be controlled by a single illuminated rocker switch mounted within easy reach of the driver.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.

Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.

The Flaps in front of the rear tires shall be constructed of 0.1406 in (10 gauge) steel.

The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:

Whelen Light Kit Part # PADOTSY5, Kit contains the following lighting.

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. In no case shall the light bar be mounted on the roof of the vehicle.
 2-LINZ6A Amber warning, to be flush mounted to outer edges of the front grill per EQN-115
 2 - M6AD Amber warning lights
 2 - M6BTTD Stop, Tail, Turn lights
 2 - M6BUD Back-up lights
 2 - 11-486152-000 Vertical black flange housing assembly. Above warning, STT, and back up lights shall be mounted within housing per EQN - 120M.
 2 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN - 120M. Side warning lights are to be wired in conjunction with above light bar.
 2 - LINZ6 Grommet Kits
 8 - W441D Harness side mating Deutch connectors.
 The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.
 1 - PFP1PA Tripod pedestal work light with coiled cord, remote mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Portable light retainer mounting location will be determined at pilot inspection.
 Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight. All Body lighting shall be LED.
 The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.
 Body wiring shall be Grote, Trucklite, or Prior Approved Equal.
 There shall be no splices outside of a sealed box or fixture. Box SHALL NOT be obstructed
 There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A
 A color-coded electrical wiring chart and schematic shall accompany each body.
 All wiring shall be secured using "P" type clamps 12" maximum between securment. All wires shall be in a protective covering. Any loose hanging wires are unexceptable.

Paint:

Body priming and painting to ensure full coverage to all areas of the body
 Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**
 All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.
 A rust preventative treatment shall be applied.

 Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,
Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the rear of body as per EQN-120K.
 ICC Rear Under ride Protector, hitch and grip strut ladders shall be painted black.
 Front lower leading edge of cabinets shall have a minimum 12 inch high aluminum diamond plate for chip resistance.

HITCH:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

Buyers Products (216-974-888)		OR	Wallace Forge Company (800-328-1203)
Combo Ball Hitch W/ 2 inch Hard Chrome Ball:	Buyers Products (216-974-888)		23071911
Pintle Mounting Plate:	PM-87		2200170 PADOT
Bolt Kit:	8520		2117240
Hitch Pin:	HP6253 WC		HP58412

Shovel Storage Basket:

Shovel basket to be constructed with minimum .100 in aluminum pre-punched pan, all edges to have hem and minimum three (3) exterior cross supports for added strength.

Storage basket to be 10 in high x 20 in wide x 96 in long and mounted on top of street side compartment, per attached drawing. REF: EQN - 134

Drawings:

EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120K	Revised	09-28-11	sheet 1	TYPICAL REFLECTIVE SHEETING
EQN-120M		09-28-11	sheet 1	CREW CAB BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-134	Revised	01-11-06	sheet 1	SHOVEL BASKET
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING

Options

Bed Liner:

Center Cargo Area shall have a sprayed bed liner. Shall cover floor, both interior side panels, front interior panel and tailgate interior. Shall be a minimum of 150 Mils. Thickness. Material shall have No VOCS and be applied utilizing a high pressure spray. (Ref: Rhino, Linex or pre approved equal.)

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securley fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy acccebability and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Loose hanging wires that are not secure or are pulled tight so they are suspended with no support.

SPECIFICATION

049700 - Steel Survey Body Upfit For Use With 11K and 17K Chassis

Reference: Stahl, Omaha Standard, or Knapheide, meeting these specifications.

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:

Body - Installation:

It shall be the responsibility of the successful vendor to have the survey body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The survey body dimensions shall cover the rear wheels. Any other applicable changes required to accommodate this type unit is the responsibility of the bidder. Frame rails shall be prepared by cleaning, priming and final painting. The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

Minimum height for inside of canopy 60 inches

There shall be a Betts M77V-I0-0066, 7 in dome light with switch or Truck-Lite 80354 dome light with switch, mounted in the center inside roof with a Betts 56V-10-0066 switch and boot assembly mounted on the right inside within arms reach.

There shall be glass panels in the rear doors.

Lower glass panels shall be protected with steel mesh or expandable metal.

All doors shall have rubber seals that contact them around their entire perimeter.

There shall be a drip rail above all doors.

Piano hinge is unacceptable.

All door and compartment hinges shall be rod and nylon bushing or stainless steel heavy duty strap hinge with nylon or Teflon bushings and rubber door seals.

All compartments shall be keyed alike, with no two individual completed units having the same keys.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type. Chain or cable is acceptable on horizontal doors only.

All compartments shall be keyed alike, with no two individual completed units having the same keys.

The heavy-duty rear bumper shall be constructed with a minimum of 1/8 inch reinforced steel. The size and strength shall be in accordance with the truck manufacturer's step design. The platform on top of the bumper shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable.

There shall be a stainless steel grab handle on each rear side of the utility body to assist the operator in entering and exiting the bed area, Non-skid paint or rubber shall be utilized, (non-skid tape is unacceptable). Ref: Non skid paint, Gamma Laboratories (Tel. 304-489-2828.)

All compartment floors shall be covered with yellow DriDek (Tel: 800-348-2398).

Any area likely to be stepped on shall be covered with non-skid paint.

Each compartment shall have the Vista Compartment lighting System (Tel: 219-264-0711). The "Krystal-Lite" lighting sections shall be mounted on the roof of each compartment and shall occupy at a minimum (approximately) $\frac{3}{4}$ of the compartments length. All compartments lighting shall be controlled by a single illuminated rocker switch mounted within easy reach of the driver.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Mud Flaps:

Mud flaps at rear of rear tires, unmarked, full width of tires, and gusseted.
Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.
The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:**Whelen Light Kit Part # PADOTSY5, Kit contains the following lighting.**

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. In no case shall the light bar be mounted on the roof of the vehicle.
2 - M6AD Amber warning lights
2 - M6BTDD Stop, Tail, Turn lights
2 - M6BUD Back-up lights
2 - 11-486152-000 Vertical black flange housing assembly. Above warning, STT, and back up lights shall be mounted within housing per EQN - 120M.
4 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN - 120M. Side warning lights are to be wired in conjunction with above light bar and two flush mounted in the grill with rubber grommets.
2 - LINZ6 Grommet Kits
8 - W441D Harness side mating Deutsch connectors.
The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.
1 - PFP1PA Tripod pedestal work light with coiled cord and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground.

Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted.
Connections shall be water tight. All Body lighting shall be LED.
The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.
Body wiring shall be Grote, Trucklite, or Prior Approved Equal.
There shall be no splices outside of a sealed box or fixture.
There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A
A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body
Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont 6808 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**
All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.
A rust preventative treatment shall be applied.

Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,
Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the rear of body as per EQN-120K.
ICC Rear Under ride Protector, hitch and grip strut ladders shall be painted black.
Front lower leading edge of cabinets shall have a minimum 12 inch high aluminum diamond plate for chip resistance.

Hitch:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

	Buyers Products (216-974-888)	OR	Wallace Forge Company (800-328-1203)
Combo Ball Hitch W/ 2 inch Hard Chrome Ball:	BH8-2000		23071911
Pintle Mounting Plate:	PM-87		2200170 PADOT
Bolt Kit:	8520		2117240
Hitch Pin:	HP6253 WC		HP58412

Drawings:

EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-120K	Revised	09-28-11	sheet 1	TYPICAL REFLECTIVE SHEETING
EQN-120M		09-28-11	sheet 1	CREW CAB BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING

Options**Installation Practices**

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

SPECIFICATION

050400 - Foreman Body Upfit For Use With 11K and 17K Chassis, Full Standard Doors

Reference: Crest FBP9D, Warner, Stahl HD96T-09, Knapheide PVMXT-93C or Approved Equal.

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the foreman body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The foreman body dimensions shall cover the rear wheels. Any other applicable changes required to accommodate this type unit is the responsibility of the bidder.

The body shall have a front mounted bulkhead and shall be a minimum 14 gauge steel with punched or expandable metal area in alignment with the cab rear window. It shall be constructed of sufficient strength to eliminate damage to the rear of the cab. The bulkhead shall not interfere with the visibility of the third brake light.

Proposed bulkhead shall be reviewed for acceptance prior to pilot model inspection by the Equipment Division. The bulkhead shall have a forward extension mounted to the driver's side, of sufficient size to support the base of the warning light and this extension shall have a gusset.

Frame rails shall be prepared by cleaning, priming and final painting.

The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

Shall have two (3) compartments on curb side and three (3) compartments on road side. **COMPARTMENTS SHALL BE 15" DEEP.**

The front curbside compartment shall have two (2) adjustable shelves.

The top road side compartments shall have one (1) adjustable shelf each.

There shall be a drip rail above all doors.

The top left and right area's of the forman's body shall be covered with aluminum diamond deck (unpainted), and sealed all around.

Piano hinge is unacceptable.

All door and compartment hinges shall be cadium plated rod with zinc cast hinge block and nylon bushing or stainless steel heavy duty strap hinge with nylon or Teflon bushings and automotive type rubber door seals.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type.

Horizontal compartment doors shall have a removable limiting device, steel lock strap type.

Horizontal compartment doors shall open down with hinge on bottom of the door and one latch at the top of the door.

Rubber bumpers shall be placed on the body to hit all horizontally opening doors that open downward to keep them from damage.

Each compartment shall be equipped with ONE Stainless steel bolt on latch, Rivit on latches are unacceptable.

All compartments shall be keyed alike, with no two individual completed units having the same keys.

Each unit shall have an step bumper made from minimum 1/8" reinforced steel and equipped with bustin steel grip grating, minimum step surface 9" x 27" (ref:Knaphide used 94J Bustin Steel bar bumper). The platform on top of the bumper shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable.

Two, 2" deep x 12" long steps hung by 6" long 3/4" diameter cables shall be mounted, one under each side of bumper. Both hung 12" in from edge of bumper, step shall be Bustin steel grip grating.

A 12" non-slip grab handle on top of each cabinet at rear shall also be provided to assist operators when climbing into rear of body. (anti-slip tape is unacceptable)

There shall be a stainless steel grab handle on each rear side of the utility body to assist the operator in entering and exiting the bed area,

Non-skid paint or rubber shall be utilized, (non-skid tape is unacceptable). Ref: Non skid paint, Gamma Laboratories (Tel. 304-489-2828.)

All compartment floors shall be covered with yellow DriDek (Tel: 800-348-2398).

Any area likely to be stepped on shall be covered with non-skid paint.

Compartment lighting:

Each compartment shall have the Vista Compartment lighting System (Tel: 219-264-0711). The "Krystal-Lite" lighting sections shall be mounted on the roof of each compartment and shall occupy at a minimum (approximately) ¾ of the compartments length. All compartments lighting shall be controlled by a single illuminated rocker switch mounted within easy reach of the driver.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

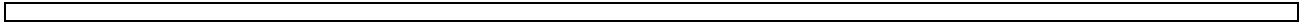
Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.

Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.

The Flaps in front of the rear tires shall be constructed of 0.1406 in (10 gauge) steel.

The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.



Electrical:

Whelen Light Kit Part # PADOTSY5, Kit contains the following lighting.

- 1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. In no case shall the light bar be mounted on the roof of the vehicle.
 - 2-LINZ6A Amber warning, to be flush mounted to outer edges of the front grill per EQN-115
 - 2 - M6AD Amber warning lights
 - 2 - M6BTDD Stop, Tail, Turn lights
 - 2 - M6BUD Back-up lights
 - 2 - 11-486152-000 Vertical black flange housing assembly. Above warning, STT, and back up lights shall be mounted within housing per EQN - 120M.
 - 2 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN - 120M. Side warning lights are to be wired in conjunction with above light bar.
 - 2 - LINZ6 Grommet Kits
 - 8 - W441D Harness side mating Deutch connectors.
- The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.
- 1 - PFP1PA Tripod pedestal work light with coiled cord, remote mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Remote mounting location to be determined at pilot inspection.

Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight. All Body lighting shall be LED.

The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

There shall be no splices outside of a sealed box or fixture.

There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A

A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body

Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**

All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.

A rust preventative treatment shall be applied.

Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,

Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the rear of body as per EQN-120K.

ICC Rear Under ride Protector, hitch and grip strut ladders shall be painted black.

Front lower leading edge of cabinets shall have a minimum 12 inch high aluminum diamond plate for chip resistance.

HITCH:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

Buyers Products (216-974-888)		OR	Wallace Forge Company (800-328-1203)	
Combo Ball Hitch W/ 2 inch Hard Chrome Ball:	BH8-2000			23071911
Pintle Mounting Plate:	PM-87			2200170 PADOT
Bolt Kit:	8520			2117240
Hitch Pin:	HP6253 WC			HP58412

Body Specifications:

Length (O.D.):	112.4"
Length (I.D.):	110"
Width (O.D.):	95"
Cargo area floor width (I.D.):	64"
Floor Construction:	12 Gauge steel deck-plate floor
Side and end rails:	5 3/4" Formed steel side and end rails with square corners
Long sills:	6", 8.2# structural steel channel long sills gusseted to every cross member
Cross members:	5 3/4" high formed steel cross members on 18" centers
Tailgate:	15" hinged steel tailgate with rubber coated chain retainers
Toolbox construction:	14-gauge 2-sided; A40 galvanized steel with rotary slam action latches with keyed alike lock cylinders and compartment weather-proofing (Piano hinge is NOT ACCEPTABLE)
Curbside toolboxes:	80.38" L x 23" H x 15.25" D (CSR) 32" L x 46" H x 15 1/4" D (CSF) Horizontal box to have 1 latch handle and (2) latch catch points per door
Roadside toolboxes:	55.97" L x 23" H x 15.25" D (RSR) 56.41" L x 23" H x 15.25" D (RSM) 32" L x 18" H x 15.25" D (RSFU)
Bulkhead:	Special tapered bulkhead 10 gauge punched. Bottom half on bulkhead 18" high full width of cargo area bulkhead. Top half shall be 19" high with tapered sides.
Possum belly compartment:	Full length possum belly located between long sills to include lockable-hinged access door.
Splash shields:	Steel splash shields in front of rear wheels.

Shovel Storage Basket:

Shovel basket to be constructed with minimum .100 in aluminum pre-punched pan, all edges to have hem and minimum three (3) exterior cross supports for added strength.
Storage basket to be 10 in high x 20 in wide x 96 in long and mounted on top of street side compartment, per attached drawing. REF: EQN - 134

Drawings:

EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120H	Revised	8-2-12	sheet 1	FORMAN BODY
EQN-120K	Revised	09-28-11	sheet 1	TYPICAL REFLECTIVE SHEETING
EQN-120M		09-28-11	sheet 1	CREW CAB BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE

Options**Bed Liner:**

Center Cargo Area shall have a sprayed bed liner. Shall cover floor, both interior side panels, front interior panel and tailgate interior. Shall be a minimum of 150 Mils. Thickness. Material shall have No VOCS and be applied utilizing a high pressure spray. (Ref: Rhino, Linex or pre approved equal.)

Installation Practices

All lights shall meet all Federal and State regulations.
All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.
All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.
All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.
All electrical connections shall be treated with di-electric grease.
All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.
All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.
Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.
Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.
All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.
All corners shall be angled or rounded for safety.
All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

- Non-steel fittings on hydraulic pressure lines.
- Excessive use of elbows on hydraulic lines.
- Use of thread tape on hydraulic fittings.
- Use of galvanized fittings or components on hydraulic system.
- Improper hydraulic line size.
- Use of high-pressure hose for hydraulic suction line.
- Scotchlok-type wire splices.
- Non-insulated wire splices.
- Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.
- Improperly prepared, primed and painted surfaces.
- Non-fused electric circuits.
- Hydraulic circuits without pressure relief protection.
- Loose hanging wires that are not secure or are pulled tight so they are suspended with no support.

SPECIFICATION

050401 - Foreman Body Upfit For Use With 11K and 17K Chassis Split horizontal door configuration

Reference: Warner, Knapheide or Approved Equal.

Note: " Refer to PCID 1075 for Delivery, Training, and Warranty Requirements".

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the foreman body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The foreman body dimensions shall cover the rear wheels. Any other applicable changes required to accommodate this type unit is the responsibility of the bidder.

The body shall have a front mounted bulkhead and shall be a minimum 14 gauge steel with punched or expandable metal area in alignment with the cab rear window. It shall be constructed of sufficient strength to eliminate damage to the rear of the cab. The bulkhead shall not interfere with the visibility of the third brake light.

Proposed bulkhead shall be reviewed for acceptance prior to pilot model inspection by the Equipment Division. The bulkhead shall have a forward extension mounted to the driver's side, of sufficient size to support the base of the warning light and this extension shall have a gusset.

Frame rails shall be prepared by cleaning, priming and final painting.

The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

Shall have two (3) compartments on curb side and three (3) compartments on road side. **COMPARTMENTS SHALL BE 15" DEEP.**

The front curbside compartment shall have two (2) adjustable shelves.

The top road side compartments shall have one (1) adjustable shelf each.

There shall be a drip rail above all doors.

The top left and right area's of the forman's body shall be covered with aluminum diamond deck (unpainted), and sealed all around.

Piano hinge is unacceptable.

All door and compartment hinges shall be cadium plated rod with zinc cast hinge block and nylon bushing or stainless steel heavy duty strap hinge with nylon or Teflon bushings and automotive type rubber door seals.

Vertical compartment doors shall have a limiting device, shock type or steel lock strap type.

Horizontal compartment doors that open up shall utilize a gas shock to assure door stays in open position, min 135° opening angle.

Horizontal compartment doors that open down shall have a removable limiting device, steel lock strap type.

Rubber bumpers shall be placed on the body to stop all horizontally opening doors that open downward to keep them from damage.

Each compartment shall be equipped with ONE Stainless steel bolt on latch, Rivit on latches are unacceptable.

All compartments shall be keyed alike, with no two individual completed units having the same keys.

Each unit shall have an step bumper made from minimum 1/8" reinforced steel and equipped with bustin steel grip grating, minimum step surface 9" x 27" (ref:Knaphide used 94J Bustin Steel bar bumper). The platform on top of the bumper shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable.

Two, 2" deep x 12" long steps hung by 6" long 3/4" diameter cables shall be mounted, one under each side of bumper. Both hung 12" in from edge of bumper, step shall be Bustin steel grip grating.

A 12" non-slip grab handle on top of each cabinet at rear shall also be provided to assist operators when climbing into rear of body. (anti-slip tape is unacceptable)

There shall be a stainless steel grab handle on each rear side of the utility body to assist the operator in entering and exiting the bed area, Non-skid paint or rubber shall be utilized, (non-skid tape is unacceptable). Ref: Non skid paint, Gamma Laboratories (Tel. 304-489-2828.)

All compartment floors shall be covered with yellow DriDek (Tel: 800-348-2398).

Any area likely to be stepped on shall be covered with non-skid paint.

Compartment lighting:

Each compartment shall have the Vista Compartment lighting System (Tel: 219-264-0711). The "Krystal-Lite" lighting sections shall be mounted on the roof of each compartment and shall occupy at a minimum (approximately) ¼ of the compartments length. All compartments lighting shall be controlled by a single illuminated rocker switch mounted within easy reach of the driver.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.

Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.

The Flaps in front of the rear tires shall be constructed of 0.1406 in (10 gauge) steel.

The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:**Whelen Light Kit Part # PADOTS5, Kit contains the following lighting.**

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. In no case shall the light bar be mounted on the roof of the vehicle.

2-LINZ6A Amber warning, to be flush mounted to outer edges of the front grill per EQN-115

2 - M6AD Amber warning lights

2 - M6BTDD Stop, Tail, Turn lights

2 - M6BUD Back-up lights

2 - 11-486152-000 Vertical black flange housing assembly. Above warning, STT, and back up lights shall be mounted within housing per EQN - 120M.

2 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN - 120M. Side warning lights are to be wired in conjunction with above light bar.

2 - LINZ6 Grommet Kits

8 - W441D Harness side mating Deutch connectors.

The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.

1 - PFP1PA Tripod pedestal work light with coiled cord, remote mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Remote mounting location to be determined at pilot inspection.

Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted.

Connections shall be water tight. All Body lighting shall be LED.

The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

There shall be no splices outside of a sealed box or fixture.

There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A

A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body

Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**

All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.

A rust preventative treatment shall be applied.

Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,

Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the rear of body as per EQN-120K.

ICC Rear Under ride Protector, hitch and grip strut ladders shall be painted black.

Front lower leading edge of cabinets shall have a minimum 12 inch high aluminum diamond plate for chip resistance.

HITCH:

There shall be a hitch installed, Per EQN-202B, the Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab.

Buyers Products (216-974-888)

OR

Wallace Forge Company (800-328-1203)

Combo Ball
Hitch W/ 2
inch Hard
Chrome Ball:

BH8-2000

23071911

Pintle
Mounting
Plate:

PM-87

2200170 PADOT

Bolt Kit:

8520

2117240

Hitch Pin:

HP6253 WC

HP58412

Body Specifications:

Length (O.D.):	112.4"
Length (I.D.)	110"
Width (O.D.):	95"
Cargo area floor width (I.D.)	64"
Floor Construction:	12 Gauge steel deck-plate floor
Side and end rails:	5 3/4" Formed steel side and end rails with square corners
Long sills:	6", 8.2# structural steel channel long sills gusseted to every cross member
Cross members:	5 3/4" high formed steel cross members on 18" centers
Tailgate:	15" hinged steel tailgate with rubber coated chain retainers
Toolbox construction:	14-gauge 2-sided; A40 galvanized steel with rotary slam action latches with keyed alike lock cylinders and compartment weather-proofing (Piano hinge is NOT ACCEPTABLE)
Curbside toolboxes:	80.38" L x 23" H x 15.25" D (CSR) 32" L x 46" H x 15 1/4" D (CSF) Horizontal box to have 1 latch handle and (2) latch catch points per door
Roadside toolboxes:	32" L x 18" H x 15.25 D (CSRU) 55.97" L x 23" H x 15.25" D (RSR) 56.41" L x 23" H x 15.25 D (RSM) 32" L x 18" H x 15.25 D (RSFU) All horizontally opening doors shall utilize two doors, one folding up and one folding down.
Bulkhead:	Special tapered bulkhead 10 gauge punched. Bottom half on bulkhead 18" high full width of cargo area bulkhead. Top half shall be 19" high with tapered sides.
Possum belly compartment:	Full length possum belly located between long sills to include lockable-hinged access door.
Splash shields:	Steel splash shields in front of rear wheels.

Shovel Storage Basket:

Shovel basket to be constructed with minimum .100 in aluminum pre-punched pan, all edges to have hem and minimum three (3) exterior cross supports for added strength.
Storage basket to be 10 in high x 20 in wide x 96 in long and mounted on top of street side compartment, per attached drawing. REF: EQN - 134

Drawings:

EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120HS	Revised	08-02-12	sheet 1	FORMAN BODY
EQN-120K	Revised	09-28-11	sheet 1	TYPICAL REFLECTIVE SHEETING
EQN-120M		09-28-11	sheet 1	CREW CAB BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE

Options**Bed Liner:**

Center Cargo Area shall have a sprayed bed liner. Shall cover floor, both interior side panels, front interior panel and tailgate interior. Shall be a minimum of 150 Mills. Thickness. Material shall have No VOCs and be applied utilizing a high pressure spray. (Ref: Rhino, Linex or pre approved equal.)

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessibility and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

- Non-steel fittings on hydraulic pressure lines.
- Excessive use of elbows on hydraulic lines.
- Use of thread tape on hydraulic fittings.
- Use of galvanized fittings or components on hydraulic system.
- Improper hydraulic line size.
- Use of high-pressure hose for hydraulic suction line.
- Scotchlok-type wire splices.
- Non-insulated wire splices.
- Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.
- Improperly prepared, primed and painted surfaces.
- Non-fused electric circuits.
- Hydraulic circuits without pressure relief protection.
- Loose hanging wires that are not secure or are pulled tight so they are suspended with no support.

Truck-Sign, 17K, 2WD, Gas, Cab and Chassis, 11 Foot body
With Automatic Transmission

Truck, Sign, Regular Cab, Gas (064300)
Truck, Sign, With Crane, Regular Cab, Gas (064400)
Truck, Sign, With Aerial Bucket, Regular Cab, Gas (064500)
Truck, Sign, Extended Cab, Gas (064520)

This dual-rear wheel model chassis shall be a manufacturer's standard cab model, which is engineered, certified and capable of towing a trailer, without brakes. 17,000 Lb GVWR minimum with the manufacturer's rating certified on door. Chassis shall accommodate the specific body options referenced within this specification.

Unit Shall Include The Following Optional Equipment:

Alternator: Manufacturers largest / heaviest duty available.
Air bags: Driver and passenger.
Air Conditioning: Standard.
Am/Fm Radio: Standard.
Manual Windows/Locks: Standard.
Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Daytime Running Lights: (Aftermarket acceptable).

Electrical:

Whelen Light Kit Part # PADOTSY5, Kit contains the following lighting.

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead, mounting as per EQN-483, sheet 1 of 7. In no case shall the light bar be mounted on the roof of the vehicle.

2 - M6AD Amber warning lights

2 - M6BTTD Stop, Tail, Turn lights

2 - M6BUD Back-up lights

2 - 11-486152-000 Vertical black flange housing assembly. Above warning, STT, and back up lights shall be mounted within housing per EQN – 120M.

2- LINZ6AD Amber warning lights, grommet mounted, grill mounted per EQN-115

2 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN – 120M. Side warning lights are to be wired in conjunction with above light bar.

2 - LINZ6 Grommet Kits

8 - W441D Harness side mating Deutsch connectors.

The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.

1 - PFP1PA Tripod pedestal work light with coiled cord, remote mount and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground. Remote mount location to be determined at pilot model inspection.

Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight. All Body lighting shall be LED.

The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

There shall be no splices outside of a sealed box or fixture.

There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A
A color-coded electrical wiring chart and schematic shall accompany each body.

Option: Power windows, Power Locks, Power and heated mirrors with manual extendable arms.

Option: FLOCS System per EQN-351A.

ENGINE

Gasoline Engine: Manufacturer's highest available horsepower and torque rating, standard or optional gasoline engine, to include, engine

oil cooler, and largest available engine cooling capacity.

- Front Bumper: Chrome, Black, or Argent.
- Fuel Tank: Manufacturer's highest capacity standard tank, frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow).
- License Plate Bracket: Rear (Lighted).
- Limited Slip Differential: Standard.
- Lubricants: Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded).
- Mirrors: Mirrors shall be manufacturer's standard heavy duty convex mirrors (aftermarket convex spot mirror acceptable) with extendable arms.
- Paint: Manufacturer's standard safety or school bus yellow.
- OPTION:** Yellow, Ref: Dupont F9885 for shade. If aftermarket, paint shall be OEM quality, including but not limited to door jams and under hood etc. Warranty shall be the same as OEM manufactures warranty.
- Rear Axle Ratio: Shall be 4.88.
- Rearview mirror: Manual day/night.
- Tinted Windshield: Manufacturers standard.

- Tires: Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, all season mud and snow type tread.
- Transmission: Automatic with auxiliary oil cooler.
- Trailer and Handling Package: To include rear stabilizer bar if available from the manufacturer as standard or optional equipment.

Unit Shall Also Include The Following Equipment:

- There shall be installed, a step bar (Westin part # 251335 or equal) in black, must be length of cab entry area on both sides.
- There shall be an ECCO model 450 back-up alarm, shock mounted.
- There shall be a 7 inch dome light, with switch, installed and centered over the front seat that is capable of operating with the ignition switch in the off position. (Ref: Truck-Lite #80354, or approved equal).
- All switches shall be permanently labeled and backlit.
- There shall be two (2) front tow hooks, installed.
- There shall be an emergency triangle warning kit, with storage box, mounted in cab.
- There shall be a minimum 5 LB. ABC type fire extinguisher, rechargeable with vehicle mount, installed in the cab for easy and quick access.
- Manufacturer's standard heavy-duty rubber floor covering.

HITCH:

- There shall be a hitch, as per EQN-202B. The upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. All below components shall be supplied within the cab.

	<u>Buyers Products</u>	OR	<u>Wallace Forge Company</u>
Combo ball hitch with 2 inch hard chrome ball:	BH8-2000		23071911
Pintle mounting plate:	PM-87		2200170 PADOT
Bolt kit:	8520		2117240
Hitch pin:	HP6253 WC		HP58412

(064300) & (064520): SIGN BODY: Sign body shall be furnished as per EQN-483, Type I and the specification below.

- The body and compartments shall be comparable to the Stahl model 129 or Warner S12MDWSP (dual wheel) 11 foot sign body (steel).
- The bulkhead shall be reinforced for severe duty.
- Compartment tops and rear of body shall be a minimum of 14 gauge, zinc coated.

- The load-bed floor shall be a minimum 12 gauge tread-plate floor, zinc coated, or Electra-life coating.
- Compartment doors shall be double paneled with reinforcement and automotive type rubber door seals around the entire perimeter. Hinges shall be stainless steel or have nylon bushings bolted / riveted to body. Piano type hinges are unacceptable.
- Compartments shall have paddle lock handles of stainless steel. Handles shall be in a recessed section of minimum galvanized material.
- All vertical doors shall have a positive locking system to ensure doors will not blow closed on the operator due to wind. All horizontal doors shall be fitted with a limiting device to ensure that the door will not contact the body when open.
 - Compartment A (front) approx. 18 x 37 x 21 with (2) adjustable material tray with dividers.
 - Compartment B approx. 18 x 42 x 21 with (1) adjustable material tray with dividers.
 - Compartment C approx. 18 x 42 x 21 with (1) adjustable material tray with dividers.
 - Compartment D approx. 15 x 51 x 18.
 - Compartment A shall have 2 locking stainless steel paddle handles. Compartments B, C, D & E will have (1) each.
 - Compartment E approx. 13.50 x 20 x 14.
 - Post bin shall be approx. 129" x 21" x 8" with a reinforced front bin wall. The door shall be bottom hinged. There shall be a second post in approx. 4" x 24" x 48" located in the center of the rear body, below the cargo area.
- There shall be a grab handle extending approx. 12" above the catwalk and mounted to both sides.
- There shall be a grip strut step bumper approx. 14" deep. Receiver (2" square) mounted in or under bumper, in either case; it shall be a Class III hitch. There shall be "D" rings (2) for safety chain connection.
- There shall be two grip strut steps on each side of the rear body to allow access to the grip strut catwalk that extends the width and length of the lower rear right side compartment top.
 - Compartment G approx. 33 x 55.75 door opening and be 35" deep with (1) front hinged door. There shall be vertical sign holders on 2" centers to fit the entire width and height throughout the compartment.
 - Compartment H approx. 15" x 45" door opening, approx. 35" deep, minimum. There shall be a shelf mounted 16" from the top
 - Compartment J approx. 26" x 49" door opening, 35" deep. There shall be three (3) pull-out material trays mounted in the rear half of compartment. Trays shall be evenly spaced. The forward half of the compartment shall have vertical sign holders on 4" centers covering the entire height and depth of compartment.
 - Compartment K approx. 20" x 42" door opening, 35" deep.

OR

- Compartment A (front) approx. 18.88 x 48.50 x 21 with (2) adjustable material tray with dividers
- Compartment C1 approx. 18.88 x 25.18 x 21 with (1) adjustable material tray with dividers
- Compartment C2 approx. 18.88 x 25.18 x 21 with (1) adjustable material tray with dividers
- Compartment D approx. 15.38 x 27 x 18
- Compartment A shall have 2 locking stainless steel paddle handles. Compartments C1, C2, D & E will have (1) each.
- Compartment E approx. 13.50 x 20 x 14
- Post bin shall be approx. 100" x 21" x 8" with a reinforced front bin wall. The door shall be bottom hinged. There shall be a second post in approx. 4" x 24" x 48" located in the center of the rear body, below the cargo area.
- There shall be a grab handle extending approx. 12" above the body and mounted to both sides.

- There shall be a grip strut step bumper (not installed) approx. 14" deep. Receiver (2" square) mounted in or under bumper, in either case it shall be a Class III hitch. There shall be "D" rings (2) for safety chain connection.
- There shall be two grip strut steps on each side of the rear body to allow access to the grip strut catwalk that extends the width and length of the lower rear right side compartment top.
 - Compartment G approx. 26 x 55.75 door opening and be 37" deep with (1) front hinged door. There shall be vertical sign holders on 2" centers to fit the entire width and height throughout the compartment.
 - Compartment J approx. 26.88" x 49" door opening, 37" deep. There shall be three (3) pull-out material trays mounted in the rear half of compartment. Trays shall be evenly spaced. The forward half of the compartment shall have vertical sign holders on 4" centers covering the entire height and depth of compartment.

(064400) : SIGN BODY WITH CRANE: Sign body shall be furnished as per EQN-483, Type II and the specification below.

- Same as Type I except unit shall be fitted with a minimum 3,200 lb crane, mounted on a reinforced compartment on the load bed front. Autocrane 3203PRX or IMT 1015 or equal.

(064500) : SIGN BODY WITH AERIAL BUCKET: Sign body shall be furnished as per EQN-483, Type III and the specification below.

- Same as Type I except unit shall be fitted with a telescopic fiberglass upper boom hydraulic aerial lift.
- Height shall be a minimum of 30 feet ground to bottom of bucket.
- Reach from centerline of rotation shall be a minimum of 20 feet. Rotation shall be 370 degrees (non-continuous).
- Platform bucket capacity shall be a minimum of 300 LBS.
- Platform bucket shall be fiberglass with a minimum of one step.
- Bucket shall be minimum 24 inch x 24 inch x 42 inch high.
- There shall be a bucket platform cover for inclement weather.
- There shall be hydraulic feather able controls located in/on the bucket to allow 1) up/down, 2) rotate, 3) extend/retract, 4) tilt, 5) engine speed control for hydraulic tool circuit, 6) engine start/stop.
- There shall be override protection provided at the lower control station.
- Platform bucket shall have a tool tray and safety harness.
- There shall be a hydraulic power tool outlet at the bucket platform. The hydraulic power tool circuit shall be capable of operating tools rated at 7 to 9 GPM.
- The hydraulic tank and circuits shall be properly sized to allow the hydraulic tools to be operated with the telescoping boom at full extension.
- There shall be an emergency electric operating system with DC pump and motor and all necessary hardware and fittings.
- Hydraulic system shall have a clutch mount engine pump (daweze or equivalent) or a transmission driven PTO pump. Regardless of design, hydraulics shall be on demand live hydraulics at all times.
- The pedestal/mainframe, turntable/turret and lower boom shall be steel weld-ment or tube/s formed into box structures. All pins and fasteners used in conjunction with the lift shall be plated. Only graded bolts are acceptable.
- All necessary structural adaptability shall be material and labor with the truck chassis made to ensure a compatible system capable of severe duty service.
- The unit shall be fitted with a system to eliminate boom creep and to lock cylinder in case of line failure.
- The unit shall be an Altec Model AT30G arm lift AF-TEL34FB/PT or HiRanger T292 or prior to bid approved equal. (There shall be an internal, within boom, tool circuit. External reel is unacceptable.)
- 180° platform rotator is acceptable if supplied with no loss in bucket lift capacity.

SAFETY:

- The cab shall have conspicuity tape as Per EQN-127A.
- **Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the rear of body as per EQN-120K.**
- The body shall have conspicuity tape as Per EQN-483, sheet 4, and 5.
- Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

DRAWINGS:

EQN-80A	Revised	11-12-09	sheet 1 of 1	WIRING DIAGRAM
EQN-115	Revised	07-03-12	sheet 1 of 1	GRILL WARNING LIGHTING
EQN-120K	Revised	09-28-11	sheet 1 of 1	TYPICAL REFLECTIVE SHEETING
EQN-120M	Revised	09-28-11	sheet 1 of 1	CREW CAB BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1 of 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1 of 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2 of 2	FAST LUBE OIL CHANGE SYSTEM
EQN-483	Revised	09-28-11	sheet 1 – 7 of 7	SIGN TRUCK-STANDARD CAB

Oct 16, 2012 JF

Truck-Sign, 17K, 2WD, Diesel, Cab and Chassis
With Automatic Transmission

Truck, Sign, Regular Cab, Diesel (064305)
Truck, Sign, With Crane, Regular Cab, Diesel (064405)
Truck, Sign, With Aerial Bucket, Regular Cab, Diesel (064505)
Truck, Sign, Extended Cab, Diesel (064525)
Truck, Sign, With Crane, Extended Cab, Diesel (064535)
Truck, Sign, With Aerial Bucket, Extended Cab, Diesel (064545)

This dual-rear wheel model chassis shall be a manufacturer's standard cab model, which is engineered, certified and capable of towing a trailer, without brakes. 17,000 Lb GVWR minimum with the manufacturer's rating certified on door. Chassis shall accommodate the specific body options referenced within this specification.

Unit Shall Include The Following Optional Equipment:

Alternator: Manufacturers largest / heaviest duty available.
Air bags: Driver and passenger.
Air Conditioning: Standard.
Am/Fm Radio: Standard.
Manual Windows/Locks: Standard.
Seats: Shall be equipped with Vinyl 40/20/40 seats with center work console, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Daytime Running Lights: (Aftermarket acceptable)

Electrical:

Whelen Light Kit Part # PADOTSY5, Kit contains the following lighting.

1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead, mounting as per EQN-483, sheet 1 of 7. In no case shall the light bar be mounted on the roof of the vehicle.

2 - M6AD Amber warning lights

2 - M6BTTD Stop, Tail, Turn lights

2 - M6BUD Back-up lights

2 - 11-486152-000 Vertical black flange housing assembly. Above warning, STT, and back up lights shall be mounted within housing per EQN – 120M.

2- LINZ6AD Amber warning lights, grommet mounted, grill mounted per EQN-115

2 - LINZ6AD Amber warning lights, grommet mounted, mounted 1 to each side of bed per EQN – 120M. Side warning lights are to be wired in conjunction with above light bar.

2 - LINZ6 Grommet Kits

8 - W441D Harness side mating Deutch connectors.

The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.

1 - PFP1PA Tripod pedestal work light with coiled cord and plug to be supplied in the cab.

Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground.

Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight. All Body lighting shall be LED.

The Warning lights / Light bar shall have a lighted, permanently labeled toggle switch located in the dash.

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

There shall be no splices outside of a sealed box or fixture.

There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A A color-coded electrical wiring chart and schematic shall accompany each body.

Option: Power windows, Power Locks, Power and heated mirrors with manual extendable arms.

Option: FLOCS System per EQN-351A.

ENGINE

- Diesel Engine: Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater for water cooled engines, with water-proof plug and flush mounted in front sheet metal, engine oil cooler.
- Front Bumper: Chrome, Black, or Argent.
- Fuel Tank: Manufacturer's highest capacity standard tank, frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow).
- License Plate Bracket: Rear (Lighted).
- Limited Slip Differential: Standard.
- Lubricants: Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded).
- Mirrors: Mirrors shall be manufacturer's standard heavy duty convex mirrors (aftermarket convex spot mirror acceptable) with extendable arms.
- Paint: Manufacturer's standard safety or school bus yellow.
- OPTION:** Yellow, Ref: Dupont F9885 for shade. If aftermarket, paint shall be OEM quality, including but not limited to door jams and under hood etc. Warranty shall be the same as OEM manufactures warranty.
- Rear Axle Ratio: Shall be 4.88.
- Rearview mirror: Manual day/night
- Tinted Windshield: Manufacturers standard

- Tires: Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, all season mud and snow type tread.
- Transmission: Automatic with auxiliary oil cooler.
- Trailer and Handling Package: To include rear stabilizer bar if available from the manufacturer as standard or optional equipment.

Unit Shall Also Include The Following Equipment:

- There shall be installed, a step bar (Westin part # 251335 or equal) in black, must be length of cab entry area on both sides.
- There shall be an ECCO model 450 back-up alarm, shock mounted.
- There shall be a 7 inch dome light, with switch, installed and centered over the front seat that is capable of operating with the ignition switch in the off position. (Ref: Truck-Lite #80354, or approved equal).
- All switches shall be permanently labeled and backlit.
- There shall be two (2) front tow hooks, installed.
- There shall be an emergency triangle warning kit, with storage box, mounted in cab.
- There shall be a minimum 5 LB. ABC type fire extinguisher, rechargeable with vehicle mount, installed in the cab for easy and quick access.
- Manufacturer's standard heavy-duty rubber floor covering.

HITCH:

- There shall be a hitch, as per EQN-202B. The upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. All below components shall be supplied within the cab.

	<u>Buyers Products</u>	<u>OR</u>	<u>Wallace Forge Company</u>
Combo ball hitch with 2 inch hard chrome ball:	BH8-2000		23071911
Pintle mounting plate:	PM-87		2200170 PADOT
Bolt kit:	8520		2117240
Hitch pin:	HP6253 WC		HP58412

(064305), & (064525): SIGN BODY: Sign body shall be furnished as per EQN-483, Type I and the specification below.

- The body and compartments shall be comparable to the Stahl model 129 or Warner S129MDWSP (dual wheel) 11foot sign body (steel).
- The bulkhead shall be reinforced for severe duty.
- Compartment tops and rear of body shall be a minimum of 14 gauge, zinc coated.
- The load-bed floor shall be a minimum 12 gauge tread-plate floor, zinc coated, or Electra-life coating.
- Compartment doors shall be double paneled with reinforcement and automotive type rubber door seals around the entire perimeter. Hinges shall be stainless steel or have nylon bushings riveted to body. Piano type hinges are unacceptable.
- Compartments shall have paddle lock handles of stainless steel. Handles shall be in a recessed section of minimum galvanized material.
- All vertical doors shall have a positive locking system to ensure doors will not blow closed on the operator due to wind. All horizontal doors shall be fitted with a limiting device to ensure that the door will not contact the body when open.
 - Compartment A (front) approx. 18 x 37 x 21 with (2) adjustable material tray with dividers.
 - Compartment B approx. 18 x 42 x 21 with (1) adjustable material tray with dividers.
 - Compartment C approx. 18 x 42 x 21 with (1) adjustable material tray with dividers.
 - Compartment D approx. 15 x 51 x 18.
 - Compartment A shall have 2 locking stainless steel paddle handles. Compartments B, C, D & E will have (1) each.
 - Compartment E approx. 13.50 x 20 x 14.
 - Post bin shall be approx. 129" x 21" x 8" with a reinforced front bin wall. The door shall be bottom hinged. There shall be a second post in approx. 4" x 24" x 48" located in the center of the rear body, below the cargo area.
- There shall be a grab handle extending approx. 12" above the catwalk and mounted to both sides.
- There shall be a grip strut step bumper approx. 14" deep. Receiver (2" square) mounted in or under bumper, in either case; it shall be a Class III hitch. There shall be "D" rings (2) for safety chain connection.
- There shall be two grip strut steps on each side of the rear body to allow access to the grip strut catwalk that extends the width and length of the lower rear right side compartment top.
 - Compartment G approx. 33 x 55.75 door opening and be 35" deep with (1) front hinged door. There shall be vertical sign holders on 2" centers to fit the entire width and height throughout the compartment.
 - Compartment H approx. 15" x 45" door opening, approx. 35" deep, minimum. There shall be a shelf mounted 16" from the top
 - Compartment J approx. 26" x 49" door opening, 35" deep. There shall be three (3) pull-out material trays mounted in the rear half of compartment. Trays shall be evenly spaced. The forward half of the compartment shall have vertical sign holders on 4" centers covering the entire height and depth of compartment.
 - Compartment K approx. 20" x 42.75" door opening, 37" deep.

OR

- Compartment A (front) approx. 18.88 x 48.50 x 21 with (2) adjustable material tray with dividers
- Compartment C1 approx. 18.88 x 25.18 x 21 with (1) adjustable material tray with dividers
- Compartment C2 approx. 18.88 x 25.18 x 21 with (1) adjustable material tray with dividers
- Compartment D approx. 15.38 x 27 x 18

- Compartment A shall have 2 locking stainless steel paddle handles. Compartments C1, C2, D & E will have (1) each.
 - Compartment E approx. 13.50 x 20 x 14
 - Post bin shall be approx. 100" x 21" x 8" with a reinforced front bin wall. The door shall be bottom hinged. There shall be a second post in approx. 4" x 24" x 48" located in the center of the rear body, below the cargo area.
- There shall be a grab handle extending approx. 12" above the body and mounted to both sides.
 - There shall be a grip strut step bumper (not installed) approx. 14" deep. Receiver (2" square) mounted in or under bumper, in either case it shall be a Class III hitch. There shall be "D" rings (2) for safety chain connection.
 - There shall be two grip strut steps on each side of the rear body to allow access to the grip strut catwalk that extends the width and length of the lower rear right side compartment top.
 - Compartment G approx. 26 x 55.75 door opening and be 37" deep with (1) front hinged door. There shall be vertical sign holders on 2" centers to fit the entire width and height throughout the compartment.
 - Compartment J approx. 26.88" x 49" door opening, 37" deep. There shall be three (3) pull-out material trays mounted in the rear half of compartment. Trays shall be evenly spaced. The forward half of the compartment shall have vertical sign holders on 4" centers covering the entire height and depth of compartment.

(064405) & (064535) : SIGN BODY WITH CRANE: Sign body shall be furnished as per EQN-483, Type II and the specification below.

- Same as Type I except unit shall be fitted with a minimum 3,200 lb crane, mounted on a reinforced compartment on the load bed front. Autocrane 3203PRX or IMT 1015 or equal.

(064505) & (064545) : SIGN BODY WITH AERIAL BUCKET: Sign body shall be furnished as per EQN-483, Type III and the specification below.

- Same as Type I except unit shall be fitted with a telescopic fiberglass upper boom hydraulic aerial lift.
- Height shall be a minimum of 30 feet ground to bottom of bucket.
- Reach from centerline of rotation shall be a minimum of 20 feet. Rotation shall be 370 degrees (non-continuous).
- Platform bucket capacity shall be a minimum of 300 LBS.
- Platform bucket shall be fiberglass with a minimum of one step.
- Bucket shall be minimum 24 inch x 24 inch x 42 inch high.
- There shall be a bucket platform cover for inclement weather.
- There shall be hydraulic feather able controls located in/on the bucket to allow 1) up/down, 2) rotate, 3) extend/retract, 4) tilt, 5) engine speed control for hydraulic tool circuit, 6) engine start/stop.
- There shall be override protection provided at the lower control station.
- Platform bucket shall have a tool tray and safety harness.
- There shall be a hydraulic power tool outlet at the bucket platform. The hydraulic power tool circuit shall be capable of operating tools rated at 7 to 9 GPM.
- The hydraulic tank and circuits shall be properly sized to allow the hydraulic tools to be operated with the telescoping boom at full extension.
- There shall be an emergency electric operating system with DC pump and motor and all necessary hardware and fittings.
- Hydraulic system shall have a clutch mount engine pump (daweze or equivalent) or a transmission driven PTO pump. Regardless of design, hydraulics shall be on demand live hydraulics at all times.
- The pedestal/mainframe, turntable/turret and lower boom shall be steel weld-ment or tube/s formed into box structures. All pins and fasteners used in conjunction with the lift shall be plated. Only graded bolts are acceptable.

- All necessary structural adaptability shall be material and labor with the truck chassis made to ensure a compatible system capable of severe duty service.
- The unit shall be fitted with a system to eliminate boom creep and to lock cylinder in case of line failure.
- The unit shall be an Altec Model AT30G arm lift AF-TEL34FB/PT or HiRanger T292 or prior to bid approved equal. (There shall be an internal, within boom, tool circuit. External reel is unacceptable.)
- 180° platform rotator is acceptable if supplied with no loss in bucket lift capacity.

SAFETY:

- The cab shall have conspicuity tape as Per EQN-127A.
- **Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the rear of body as per EQN-120K.**
- The body shall have conspicuity tape as Per EQN-483, sheet 4, and 5.
- Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

DRAWINGS:

EQN-80A	Revised	11-12-09	sheet 1 of 1	WIRING DIAGRAM
EQN-115	Revised	07-03-12	sheet 1 of 1	GRILL WARNING LIGHTING
EQN-120K	Revised	09-28-11	sheet 1 of 1	TYPICAL REFLECTIVE SHEETING
EQN-120M	Revised	09-28-11	sheet 1 of 1	CREW CAB BODY LIGHTING
EQN-127A	Revised	01-02-09	sheet 1 of 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1 of 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2 of 2	FAST LUBE OIL CHANGE SYSTEM
EQN-483	Revised	09-28-11	sheet 1 – 7 of 7	SIGN TRUCK-STANDARD CAB

Oct 16, 2012 JKF

Truck-Tow, 17,950 lb, Standard Cab and Chassis
With Automatic Transmission

Truck, Tow, 17,950 lb (064900)

This dual-rear wheel model chassis shall be a manufacturer's standard cab model, which is engineered, certified and capable of towing. 17,950 lb GVWR minimum with the manufacturer's rating certified on door. Chassis shall accommodate the specific body options referenced within this specification.

Unit Shall Include The Following Optional Equipment:

Alternator: Manufacturers largest / heaviest duty available.
Battery: Manufacturers largest / heaviest duty, dual unit configuration.
Air bags: Driver and passenger.
Air Conditioning: Standard.
Am/Fm Radio: Standard.
Power Windows/Locks: Standard.
Bench Seat: Foam padded bench seat, with seat belts. (Cloth unacceptable).
Daytime Running Lights: (Aftermarket acceptable)

ENGINE

Diesel Engine: Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater for water cooled engines, with water-proof plug and flush mounted in front sheet metal, engine oil cooler.

Option: FLOCS System per EQN-351A.

Fuel Tank: Manufacturer's highest capacity standard tank, frame mounted (Tank filler positioned on body side panel to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow and clear top deck of body).

License Plate Bracket: Mounted on wrecker light bar with light. There shall also be provisions made for a front license plate.

Limited Slip Differential: Standard.

Lubricants: Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded).

Mirrors: Mirrors shall be manufacturer's standard heavy duty convex mirrors (aftermarket convex spot mirror acceptable) with extendable arms. Mirrors shall be heated with a switch mounted conveniently to the operator. OEM or aftermarket acceptable. (Reference: Power Vision Mirrors, www.powervisionmirrors.com.)

Paint: Hot lime green, Ref: PPG color 46973.

Rear Axle Ratio: Shall be determined at pre-build meeting, from manufacturers standard available ratios.

Suspension: Multi-leaf design-tapered. 13,680 lb rear with helper springs and 7,000 lb front axle. Additional load suspension must be added. Timbren load boosters or equivalent.

Rearview mirror: Manual day/night.

Tinted Windshield: Manufacturers standard

Tires: Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, all season mud and snow type tread on drive axle and highway all season on steer axle.

Transmission: Automatic with auxiliary oil cooler and tow/haul mode included.

Unit Shall Also Include The Following Equipment:

- There shall be installed, a step bar (Westin part # 251335 or equal) in black, must be length of cab entry area on both sides.
- There shall be an ECCO model 450 back-up alarm, shock mounted.
- There shall be a 7 inch dome light, with switch, installed and centered over the front seat that is capable of operating with the ignition switch in the off position. (Ref: Truck-Lite #80354, or approved equal).
- All switches shall be permanently labeled and backlit.
- There shall be two (2) front tow hooks, installed.
- There shall be an emergency triangle warning kit, with storage box, mounted in cab.
- Manufacturer's standard heavy-duty rubber floor covering.
- Full length clear hood mounted bug deflector (must be able to accommodate lettering).
- Dual horns.
- Heavy-duty cooling system.
- Hour meter that only registers when the engine is operating. (Ref: Datacon or equal).
- Lug wrench and handle.
- Standard jack and hydraulic jack (2 U.S. ton, Matco part number – AM200FJM or equal)
- Spare wheel and balanced tire shipped loose with truck.
- Must have tow bar attachment device capable to be installed as needed on hydraulic crossbar for moving vehicles with no wheel/tires and have Grade 70 chains with hooks and T-hooks.
- Three (3) 5 GAL plastic cans (mounted).
- Plug-in jump start kit with 25 foot cables.
- 110 volt inverter for frequent use.
- Mud flaps, front and rear, unmarked, total length of rubber shall be in accordance with PA state laws. Rear mud flaps shall cover both rear tires.
- One (1) pair snatch blocks.
- Safety chains shall be mounted to the wrecker body.

(064900): TOW TRUCK BODY: Tow truck body shall be furnished as per EQN-140, and the specification below.

- Min RBM 280,000 in-lbs, frame height to be 37" = + / - 1"
- Body construction to have min 12" deep fabricated sill channels to be mounted to truck frame.
- Body sides, tool box to be of carbon steel or stainless design.
- Body to be color matched to cab (base coat /clear coat or urethane)
- Hydraulic tank to be part of subframe and to be located near front of body for additional weight ballast. Oil Capacity to be 10 gal or greater with dipstick or sight gauge, clean out cover or spin on filter, breather and heavy-duty magnetic drain plug(s).
- Must have easy access to hydraulic controls from top of body for repairs and or inspection.
- All side compartment tool boxes must have full perimeter weather seal and employ hinges with lanyards for support and be of heavy duty design to except weight loads of 200Lbs or more. All tool boxes to have water drains. Latches must be of stainless steel rotary design.
- 24" tunnel tool box shall be affixed to chassis for wheelbase configuration. 24" Tunnel design tool box shall be of carbon or stainless steel design. All tool box doors to be keyed alike.
- Body must have outside dual controls and also an electronic lanyard remote control inside cab with 10' long cable for complete wheel lift operation while in motion. Must also have provisions for add-on wireless controls without changing existing valving.
- The boom of the truck needs to be of integrated design and have recovery capabilities, capacity to be min 8,000LBS.

- A dual cable hydraulic winch with 9,000lbs capacity or greater shall be installed. 3/8" X 100 ft cable minimum standard with approved tensioner device and free wheel capabilities.
- Boom must have Hydraulic telescoping capabilities of 63" or greater. Boom lift cylinders must have a min bore of 3.50" with chrome shaft of 1.75" min STD and to be of dual lift design.
- Hydraulic system must employ clutch mount engine pump (daweze or equivalent) with a pump rating of 9 gpm or greater at 1250rpm.
- Truck chassis must have high idle control from cruise control or other approved electronic devices.
- Hydraulic system must use counterbalance valves to provide smooth operation and load holding when not in use.
- Wheel lift crossbar must employ hydraulic style "L" arms for attachment to the towed vehicle wheels or frame with a gear driven flow divider valve keeping arms synchronized under use. The wheel lift crossbar must be no higher than 3" and of setback design to provide maximum durability and clearance of towed vehicle components. Crossbar width shall be a min of 84" wide. All hydraulic hoses for under each must be totally concealed in a flexible track system and must not be exposed to the work area or under the motor vehicle when in use.
- L Arms must be of 155 degree rotation design to allow hook up of flat tires, and must be capable of clamping tires from 0" to 22" wheels. Wheel lift crossbar must include additional adapter package for using crossbar as a tow bar/sling for recovery work and to include all approved grade 70 chains and attachments. The under lift extension cylinder must have a min reach of 70" and employ cushioned type hydraulics to allow self centering of the crossbar after use and returning to idle position for traveling in a vertical stored position. Crossbar must have full tilt capabilities as well as negative tilt of 10 deg should conditions prevail use. Body should employ dual safety chains attached to body by grade 8 bolts and fasteners or greater. Wheel lift must be able to accommodate trailer tow capabilities. Safety straps or basket straps for wheel lift will be required to handle all wheels to 22' diameter.
- All pivot points to wrecker body and crossbar shall have independent lubrication points and have a reference manual enclosed in the delivery package for lubrication points.
- Truck chassis shall be equipped with wrap around rubber coated push bumper w/ grille guard painted to mach cab.

LIGHTS:

- Light bar pylon, with an antenna mounting plate, sufficient to support light assembly.
- One (1) Federal Signal LED amber Legend Series with built in Directional Display (arrow Stick) and in cab controller.
- Work lighting shall be of LED configuration and be in two locations, underbody lighting for hook up and top of deck on pylon with adjustable housings, two lights at each location. (REF: Grote 63741 or equal).
- Switch panel to operate and control lights
- Magnetic tow lights with plug-in connector. Four prong plug shall be mounted in the rear of the wrecker body.
- All lights shall be LED, if possible.

LABELING:

- Boom – "PARKWAY SERVICE PATROL"
- Doors – "PARKWAY SERVICE PATROL"
- Bug screen – "PARKWAY SERVICE PATROL"
- Stinger – "PENNDOT"

SAFETY:

- All lighting to be FMVSS 108 Lighting standard specification.
- The body and cab shall have conspicuity tape as Per EQN-140, sheet 1.
- The rear of wrecker body shall have conspicuity tape in an inverted "V" pattern. Exact location decided at pre-bid meeting.
- Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.
- The exhaust shall be diverted away from driver when connecting a downed vehicle to avoid asphyxiation of the operator; system shall not interfere with the operation of the body and equipment mounted on the chassis.
- First aid kit with vehicle mount (10 person).
- There shall be a minimum 5.0 LB. ABC type fire extinguisher, rechargeable with vehicle mount, installed in the cab for easy and quick access.
- There shall be 2A:10B: C fire extinguisher, rechargeable and mounted on body.
- There shall be a towing and hauling information decal or plate affixed to inside of cab, as per EQN 303.
- Counterbalance holding valves on both tilt & lift cylinders.
- Load check in all control valve work ports.
- Lifting boom safety chain.
- 10 micron hydraulic filter installed in the return line with "service filter" over 25 psi pressure indicating gauge.

MANUALS:

- The successful vendor shall furnish all applicable manuals at time of unit delivery:
- The manuals listed shall be official O.E.M. publications supplemented with technical manuals for all components as published by sub-vendors/manufacturers.
- Parts Manual presented must be a relative to "all" items utilized to build these units, with appropriate part numbers.
- Operator's manual per unit
- The following manuals shall be supplied as listed below
 - Parts
 - Service
 - Engine
 - Transmission (Automatic or Manual)
 - Body and Sub-frame (Parts and Service)
 - Complete set of manuals for any additional items/equipment added to a piece of equipment.
- Manuals may be supplied alone or in any combination as listed below
 - Online @ Manufacturers website.
 - Unprotected CD/s that may be installed on PennDOT's Intranet

TRAINING:

Mechanic:

The successful vendor shall provide services of qualified factory trained technicians for not less than 1 training sessions of not less than 7.0 hours at 1 PENNDOT location to train personnel for in-depth preventive maintenance, overhaul and review of the proper usage of parts and service manuals, as well as component/system adjustments that need to be monitored at specified service intervals.

Operator:

The successful vendor shall provide services of qualified factory trained technicians for not less than 1 training sessions of not less than 7.0 hours at 1 PENNDOT locations to train personnel in the proper operation, safety and servicing of the equipment.

The successful vendor shall submit a training plan to the Equipment Division for approval within 45 days after receipt of the Purchase Order. The training plan shall consist of course outline and class schedule.

All training must be completed within 60 days after the dates established in the approved training plan unless an extension is mutually agreed to in writing by the Chief of the Equipment Division.

All training shall be coordinated with the District Equipment Managers, with the exception of Asphalt related training, which must be coordinated with the Statewide Training Coordinator (717) 787-4836, Fax (717) 783-4438.

DRAWINGS:

EQN-104	Revised	08-07-08	sheet 1 of 3	TOW TRUCK
EQN-303	Revised	11-03-06	sheet 1 of 1	DECAL TOWING AND HAULING
EQN-351A	Revised	10-20-06	sheet 1 & 2 of 2	FAST LUBE OIL CHANGE SYSTEM

Oct 16, 2012 JF

SPECIFICATION

066200 - Van, Cutaway, Cargo Box, 2WD, Gasoline Engine, Automatic Transmission, Dual Rear Wheels

This Dual Rear Wheel Model, Shall Be A Manufacturer's Standard Model Vehicle, Capable Of Carrying Two (2) Passengers. 14,200 Lb GVWR Minimum. Manufacturer's Rating Certified On Door. Chassis to accommodate A 14 Foot Cargo Box Body.

Reference: Supreme Spartan Body

Note: " Refer to PCID 1075 for Delivery, and Warranty Requirements".

The following additional items shall be supplied

Air Bags : Shall be equipped with manufacturers standard air bags.

Air Conditioning : Shall be equipped with manufacturers standard air conditioning.

Alternator : Shall be manufacturers largest / heaviest duty available.

Cruise Control : Shall be equipped with manufacturers standard Cruise Control.

Daytime Running Lights : Shall be equipped with manufacturers standard Daytime Running Lights. (Aftermarket Acceptable)

Differential : Shall be equipped with manufacturers standard Limited Slip Differential. Ratio to be selected at time of order from manufacturer's standard available ratios.

Engine : Shall be Manufacturer's highest available horsepower and torque rating, standard or optional gasoline engine, to include, engine oil cooler , and largest available engine cooling capacity.

Exhaust : Shall be capable of being extended by the body up fitter to the outer most edge of the installed body.

Front Bumper : Shall be Chrome, Black, or Argent.

Fuel Tank : Manufacturer's highest capacity standard tank frame mounted (Tank filler positioned to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow.)

Lubricants : Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded)

Mirrors : Shall be manufacturers standard heavy duty outside mirrors with convex mirror (aftermarket convex spot mirror acceptable) and extendable arms, driver and passenger sides. Shall be equipped with manufacturers standard manual day / night rearview mirror.

Paint : Manufacturer's standard safety or school bus yellow.

Seats: Shall be equipped with Vinyl Bucket Seats, Foam Padded with Seatbelts. (Cloth is Unacceptable)

Suspension : Shall be equipped with trailer and handling package, to include front stabilizer bar, heaviest available front and rear suspension, and heaviest available differential.

Tires : Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, OEM's most aggressive / severe duty tire available from manufacturer.

Transmission : Shall be automatic with largest available auxiliary oil cooler.

Windshield : Shall be equipped with manufacturers standard tinted windshield.

Windows and Locks : Shall be equipped with manufacturers standard manual windows and door locks.

Cargo Box Requirements

Dimensions : Shall be a square front box measuring 14 feet in length, outside width shall be 96 inches, and the interior height shall be 78 inches.

Construction : Shall be constructed using 3/8 inch Fiberglass Reinforced Plywood.

Curb Side Door : Shall be a roll up design that is capable of being securely locked. Shall be full length and 48 inches in width. There shall be a step provided under curb side door to gain access to cargo box safely and to have three points of contact when entering.

Rear Door : Shall be a roll up design that is capable of being securely locked. Shall be full length and full width.

Cargo Access Door : There shall be an access door between the cab and cargo box. Shall be properly sealed and capable of being secured in place from either compartment.

Exhaust : All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Grab Handles : There shall be a stainless steel grab handle on each side of the rear and side access doors to assist the operator in entering and exiting the bed area, Non-skid paint or rubber shall be utilized, (non-skid tape is unacceptable). Ref: Non skid paint, Gamma Laboratories (Tel. 304-489-2828.)

Floor : Shall be as low as possible, wheel wells protruding into floor area is acceptable. Shall be constructed of 2 inch by 6 inch Shiplap Pine, Minimum.

E Track : There shall be an E Track Cargo securing system. There shall be 2 rows, evenly spaced, full length, on both side walls.

Rear Step Bumper : The heavy-duty rear bumper shall be constructed with a minimum of 1/8 inch reinforced steel. The size and strength shall be in accordance with the truck manufacturer's step design. The platform on top of the bumper shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable.

Paint:

Body priming and painting to ensure full coverage to all areas of the body

Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**

All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.

A rust preventative treatment shall be applied.

Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab.

ICC Rear Under ride Protector, hitch and grip strut ladders shall be painted black.

Front lower leading edge of body shall have a minimum 12 inch high aluminum diamond plate for chip resistance.

Safety : Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the entire rear door as per EQN-120P.

Electrical:

Warning Lights shall be (8) Whelen model M6AD Lights with M6 Brush Guards, Mounted (2) per sides, Front & Rearward facing, in the upper most outside corners of cargo box. The Warning lights shall have a lighted, permanently labeled toggle switch located in the dash.

1 - Whelen PFP1PA Tripod pedestal work light with coiled cord and plug to be supplied in the cab. Work Light receptacle shall be wired and mounted in the rear of the truck. Work light receptacle shall have a constant 12 volt power supply, circuit to be properly protected and have a chassis ground.

Body builder to supply remaining Stop Tail Turn, Back Up, Marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight.

All Body lighting shall be LED.

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

There shall be no splices outside of a sealed box or fixture.

There shall be a seven-way trailer (Pin Type) receptacle mounted on rear. Per EQN - 80A

A color-coded electrical wiring chart and schematic shall accompany each body.

There shall be 2 LED lights, mounted inside cargo box, evenly spaced to illuminate cargo box area, lights shall be on a separate switch located within the cargo box.

Mud Flaps:

Mud flaps rear of rear tires, unmarked, full width of tires.

Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.

The following equipment shall be supplied / installed

There shall be an ECCO Model 450 backup alarm, shock mounted. (Installed)

There shall be a seven-way trailer light receptacle, "Pin Type", securely mounted near rear trailer hitch area. Wired per EQN - 80A. Connections shall be sealed and water tight.

All switches shall be permanently labeled and backlit.

There shall be two (2) front tow hooks, installed.

There shall be an emergency triangle warning kit in each unit, in storage box and mounted in cab. EQN - 66A

There shall be a 5 LB. minimum ABC type fire extinguisher rechargeable with vehicle mount. Securely mounted in the cab for easy and quick access.

There shall be a trailer hitch installed, as per EQN - 202B, the upper portion of hitch shall be painted with non-skid paint if extending to or outside body perimeter and is likely to be stepped on. (Tape is not acceptable.)

All the following shall be supplied and delivered in the cab. Buyers Products - Combo Ball Hitch W/ 2 inch Hard Chrome Ball BH8-2000, Pintle Mounting Plate PM-87, Bolt Kit 8520, Hitch Pin HP6253 WC. Or approved equal.

Safety

The cab shall have conspicuity tape as Per EQN-127A.

Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.

All handrails, ladders, and step configurations shall be built for three points of contact.

Anti-slip paint is required on all handholds, for the entire length, (tape is unacceptable).

Options

Option : To be equipped with Power windows, Power door locks, and Power / Heated mirrors with manual extendable arms.

Option : Install FLOCS system as per EQN: 351A.

Option : Bidder must provide option pricing for "one" of the following.

Factory: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. Unit shall be painted PennDOT yellow in lieu of the OEM's original color. Using the same process as with OEM paint.

Aftermarket: Having unit bid painted PennDOT yellow. Reference DUPONT F9885 shade only. All surfaces shall be properly cleaned and prepared prior to paint. Paint shall be the same quality as factory paint. To include all areas of the unit including interior.

Drawings:

EQN-66A	Revised	07-20-09	sheet 1	TRIANGLE STORAGE BOX AND BRACKET
EQN-80A	Revised	11-12-09	sheet 1	WIRING DIAGRAM
EQN-120P		11-03-11	sheet 1	CARGO BOX REAR DOOR REFLECTIVE SHEETING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	11-03-06	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-351A	Revised	10-20-06	sheet 1 & 2	FAST LUBE OIL CHANGE SYSTEM OVERVIEW AND PARTS LIST

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Installation Practices:

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located for easy accessability and shall not be blocked by any means for access.

All electrical connections shall be treated with di-electric grease.

All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securment.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer. Laminate rubber is unacceptable.

All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body.

All corners shall be angled or rounded for safety.

All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high-pressure hose for hydraulic suction line.

Scotchlok-type wire splices.

Non-insulated wire splices.

Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Laminated Rubber