



Form GSOP I-PIN (04/98)

STATE OF CALIFORNIA
Department of General Services - Office of Procurement

PURCHASE ORDER

Purchase Order No. Rev. Date
62242 6/30/2008

Table with 5 columns: Supplier No., Solicitation No., Delivery Date, FOB Point, Invoice Terms. Values: 84356, 56973, As Specified, Destination, Invoice Terms.

EDWARD R BACON COMPANY INC
ATTN: TROY DEOLIVEIRA
5200 FLORIN-PERKINS RD
SACRAMENTO, CA 95826-4818
Attn: HARRY N HOW

S DEPT OF WATER RESOURCES C WATER RESOURCES A-36
h T PO BOX 942836 a T ATTN: ACCOUNTS PAYABLE
i o SACRAMENTO, CA 94236-001 r o PO BOX 942836
p g SACRAMENTO CA 94236-001
e

Table with 4 columns: Agency Billing, Agency Purchase Estimate, Purchase Estimate, Revision. Values: 81000, 6000013445, 66931, 0.

Table with 3 columns: Agency Contact, Phone, Date Received. Values: BILL MAHON, 916-653-6167, Date Received.

Phone: 916-383-8250

Table header for Item No., Quantity, Unit, Commodity Code, Description, Unit Price, Extension.

THE GENERAL PROVISIONS FOR NON-IT COMMODITIES ARE HEREBY INCORPORATED BY REFERENCE. THESE GENERAL PROVISIONS CAN BE OBTAINED BY PHONING (916) 375-4400 OR BY ACCESSING OUR WEBSITE AT:

www.documents.dgs.ca.gov/pd/modellang/GPnonIT0407.pdf

THE FOLLOWING INFORMATION IS PROVIDED FOR AGENCY USE ONLY:

PRIME CONTRACTOR: SB

Table row for Item 1: 6 EA 2320-233-0101-7 TRUCK CAB & CHASSIS DIESEL. Description: Dump Body, Cab & Chassis (as described) meeting the requirements of the attached specification #18R1-2008-01 of (6) six pages, dated 3/13/2008. Reference APE#6000013198/6000013445.

Brand: STERLING TRUCKS/WARREN
Model: LT9500/F-651

Total Value: 751,740.12

FOB DESTINATION:

For the purpose of this order, only F.O.B. Destination will be accepted.

DELIVERY:

Within 180 calendar days after receipt of a purchase order, the truck shall be delivered to: Department of Water Resources, 4300 West Capitol Ave., West Sacramento, CA 95605.

Pre-Delivery Inspection Contact: Jim Pearson (916) 653-9051

All deliveries shall be made during normal business hours (6:00 - 5:00), Monday thru Friday, except State holidays.

Sales and/or use tax to be extra unless noted above

Table with 3 columns: Buyer (GUS QUINTERO), Phone (916-375-4499), BOC Number.

Handwritten signature of Jim Pearson

STATE OF CALIFORNIA

Department of General Services - Office of Procurement

**PURCHASE ORDER CONTINUATION**

Form GSOP 2-PIN (04/98)

Purchase Order No.	Revision	Date	Supplier No.	Supplier Name
62242		6/30/2008	84356	EDWARD R BACON COMPANY INC

Item No.	Quantity	Unit	Commodity Code	Description	Unit Price	Extension
<p><b>INSPECTION:</b>                      Vehicle will be inspected for compliance with these specifications by a Department of General Services Inspector of Automotive Equipment at the dealer's place of business prior to delivery. It will be the responsibility of the dealer to ask for inspection when vehicle is ready for delivery. The burden of proof of compliance with this specification will be the responsibility of the bidder.</p> <p><b>VEHICLE REGISTRATION DOCUMENTS REQUIRED:</b>                      The original dealers' Report of Sale" shall be furnished by all California licensed dealers at the time of delivery of the unit covered by these specifications. An original weight certificate from a California certified Weigh Master for registration purposes shall be supplied at the time of delivery. a Federal Excise Tax Exempt Certificate will be attached to the purchase order. All documentation supplied for registration shall contain the following physical and post office box address:</p> <p>State Department of Water Resources                      416 9th. Street                      Sacramento, CA 95814</p> <p>State Department of Water Resources                      P.O. Box 942836                      Sacramento, CA 94236-0001</p> <p>All required documentaion shall be sent to the above address by the time of delivery.</p> <p><b>Note:</b> The State shall register/license all vehicles with the California Department of Motor Vehicles.</p> <p><b>WARRANTY:</b>                      The truck cab and chassis, including but not limited to the engine, delivery, and suspension, electrical system, all modifications made to, the unit prior to materials and be covered (parts and labor) under warranty of one (1) year or 12,000 miles, whichever occurs first, following the date the State puts the unit into service. The Department will notify the supplier by mail of the in-service date and keep a record of the in-service date. <u>Please refer to page (18) of (22) #5 under Warranty in the Administrative Requirements for detailed requirements.</u></p> <p><b>MANUALS:</b>                      Vendor shall provide, upon request by the State, a copy of necessary functional manuals, adjustment manuals, schematic diagrams and parts catalogues. Parts for equipment are to be available for each model and available for purchase by the State at no greater cost than published list prices.</p> <p>This purchase order is being awarded on September 26, 2008 pursuant to Government Code Section 13332.17. Any encumbrances made pursuant to this purchase order shall be construed to have been made on the last day of the preceding fiscal year.</p> <p>This Purchase order has been registered into the state contact and procurement registration system (<a href="https://www.scprs.dgs.ca.gov/">https://www.scprs.dgs.ca.gov/</a>). The registration number is 38600908334896.</p>						

**1 SCOPE**

This specification establishes the minimum requirements for a 3-axle, diesel powered truck with a conventional cab and 10-Yard Dump Body. The truck will be utilized for loading and dumping materials such as riprap, road base, and sand on levees and on California highways with typical California ambient temperatures. The supplier is responsible for providing a truck that meets the following minimum requirements.

**2 APPLICABLE SPECIFICATIONS / STANDARDS / CODES**

Specifications, standards and codes referenced in this document in effect on the opening of the 'Invitation For Bid', form a part of this specification. The vehicle furnished under these specifications shall conform to all of the requirements of all Divisions and Chapters of the following publications:

1. Federal Motor Vehicle Safety Standards, Federal Highway Safety and DOT.
2. California Motor Vehicle Code.
3. California Code of Regulations (i.e. Title 8, Title 13, Title 15, Title 21).
4. A plate identifying the manufacturer, tare weight, gross vehicle weight rating (GVWR), date of manufacture and all other information as specified in the National Traffic and Motor Vehicle Safety Act, Section 114, and Federal Code of Regulations, Title 49, shall be attached to the truck frame or body in an easily accessible location.
5. Federal Certification: Final stage manufacturers shall be certified by National Highway Traffic Safety Administration and be registered to manufacture or alter vehicles in accordance with the code of Federal Regulation, Title 49, Parts 567-568.
6. Current California Air Resources Board (CARB) emission requirements.

**3 REQUIREMENTS**

**3.1 GENERAL**

The vehicle shall be new and equivalent in style, quality, and appointments to those offered to the general public. The vehicle shall be supplied with all equipment and accessories indicated as standard equipment in the manufacturer's published literature. Optional equipment necessary to meet the requirements of this specification shall also be installed.

- GVWR: 56,000 pounds (minimum).
- GCWR: 100,000 pounds (minimum).
- Curb Weight (Completed Truck): 23,500 pounds (maximum) with full capacity of fuel.
- Cab to Axle Centerline: 120 ± 6 inches.
- Payload: 26,000 lbs. (minimum).

**3.2 ENGINE**

The vehicle shall be equipped with the manufacturer's standard diesel engine that meets the following minimum requirements:

- Power: 380 hp gross (minimum).
- Torque: 1450 lbs.-ft. (minimum).
- Options/Accessories:
- Engine brake (Jacobs or equivalent).
- Air cleaner, dual element with restriction indicator mounted inside cab.
- Fuel water separator.

**3.3 COOLING SYSTEM**

The manufacturer shall provide its heavy duty cooling system and contain coolant/anti-freeze rated for - 40°. The radiator shall come equipped with a thermostatically controlled fan with an override switch installed in the cab. The radiator shall be equipped with a fixed bug screen behind the grill and in front of the radiator. All water hoses shall be high temperature, reinforced silicone rubber hoses or EPDM (Ethylene Propylene Diene Monomer).

**3.4 ELECTRICAL SYSTEM**

- System Voltage: 12 Volt
- Alternator: 130 amp (minimum).
- Battery: Maintenance free type with 1825 CCA at 0° F.
- Resettable breakers shall be supplied in lieu of fuses where available.

**3.5 TRANSMISSION**

The transmission shall be an Allison automatic transmission with 6 forward speeds and one reverse speed designed for on/off highway use (reference models 4000 RDS P or HD 4560P). In addition, the transmission shall have a PTO provision and shall be equipped with a factory water-to-oil transmission cooler. The controls shall be push button activated with a range hold option. Transmission shall be filled with synthetic transmission fluid (reference Allison Transynd) and labeled as such.

**3.6 BRAKES**

Self adjusting air brakes with an Anti-lock Brake System (ABS) shall be included. Brakes shall come equipped with an air compressor capacity of 15 CFM (minimum) and include a heated air dryer. The truck shall be supplied with the Trailer Air Brake Package complete with all controls allowing the release of the trailer spring brakes without releasing the truck parking brake.

**3.7 STEERING**

Steering gear shall have either double steering boxes or a single steering box and a power assist ram.

**3.8 WHEELS & TIRES**

Ten (10) steel belted radial tubeless type tires, completely mounted and balanced on the wheels, shall be furnished. The front tires shall be size 315/80R22.5, Load Range J (minimum) with highway tread. The rear tires shall be size 11R24.5, Load Range G (minimum) with mud and snow type tread. All tires supplied on this order shall be of the same make and model (Front and Rear Tires May Differ in Model), and meet the minimum GAWR. All wheels shall be of the 10-stud, hub-piloted, steel type with five hand holds and wheel widths shall be as recommended by The Tire and Rim Association Inc. and the tire manufacturer. Tire chain clearance shall be provided for dual tire chains with triple side chains.

**3.9 AXLES**

The front axle shall have a Gross Axle Weight Rating (GAWR) of at least 16,000 pounds and shall be set back approximately 40-inches. The front axle shall be equipped with Stemco style hub seals with site glass and shall be filled with synthetic oil and labeled as such. The rear axles shall have a combined GAWR of at least 40,000 pounds and be a single reduction tandem type with both axles driving. Rear axle ratio shall be determined by the truck manufacturer in order to maintain a 65 MPH road speed under full load. The rear axle shall be supplied with an inter-axle lock and a differential lock on the front tandem with controls and an indicator light. The rear axle shall have Stemco type seals filled with synthetic oil and labeled as such. Rear axles shall come equipped with an ABS traction control system that works in conjunction with the ABS braking system. When fully loaded, maximum weights on each axle shall not exceed the most recent State of California Vehicle Code.

**3.10 SUSPENSION**

The front suspension shall be the tapered leaf type with heavy duty shock absorbers. Rear Suspension shall be a high articulation walking beam type suspension with rubber springs, rubber end bushings, transverse torque rods, and heavy duty shock absorbers.

**3.11 FRAME**

The Resistance Bending Moment (RBM) of the frame shall not be less than 3,200,000 in.-lbs. per rail. The rails shall be fabricated from steel with minimum yield strength of 110,000 PSI. Each rail shall be full length with no splicing or added extensions.

**3.12 TRAILER CONNECTIONS**

A buck plate shall be fabricated from 5/8-inch plate steel and welded to the end frame rails with adequate diagonal bracing. An automatic coupler-type hitch shall be mounted on the buck plate at a vertical height of 29 inches  $\pm$  2 inches from level ground and shall have a minimum rated GCWW of 100,000 lbs. (reference Holland PH 300 with air plunger or equal). Glad hand and glad hand covers for service and emergency air lines, a seven pin electrical trailer receptacle, and two D-rings shall be installed on the buck plate.

**3.13 FUEL TANK**

Aluminum fuel tanks with a total capacity of no less than 150 gallons.

**3.14 AIR CONDITIONING**

A multi-speed cab heater, air conditioning and windshield defroster shall be included. The system shall come equipped with fresh air ventilators or combination fresh air and recirculating ventilation system

**3.15 CAB**

The following items, supplementing if necessary those items already cataloged as standard cab equipment, shall be furnished and installed:

- 3.15.1 Dual visors
- 3.15.2 Ash tray and 12 volt DC interior power outlet (cigar lighter type).
- 3.15.3 Dual, two-speed, windshield wipers with intermittent feature.
- 3.15.4 Dual windshield washers.
- 3.15.5 Instrument Cluster shall contain, at a minimum the following items:
  - Speedometer
  - Tachometer (with redline indicator)
  - Coolant temperature
  - Transmission Oil Temperature
  - Primary and secondary air pressure
  - Oil pressure
  - Fuel level
  - System voltage
  - Engine running time (hour meter)
- 3.15.6 PTO electric shift switch panel with indicator light.
- 3.15.7 Interior lights activated by opening either door and with a manual switch.
- 3.15.8 Cab mounted air horns
- 3.15.9 Right and left outside rearview mirrors shall be heated with control switch inside the cab and shall be stainless steel with 102-inch wide spacing.
- 3.15.10 Visibility window in the lower forward section of the right door or a look down mirror.
- 3.15.11 Steps and grab handles to safely enter and exit the cab on both sides.
- 3.15.12 Floor mats, headliner and full cab insulation.
- 3.15.13 Driver and passenger seats shall be adjustable air-ride suspension type with high back head support and dual arm rests.
- 3.15.14 Seat belts for all seating positions.
- 3.15.15 Interior color shall be one of the neutral colors among the manufacturer's standard colors.
- 3.15.16 Three sets of keys shall be provided.
- 3.15.17 All locks shall be keyed alike.
- 3.15.18 Standard manufacturer's AM/FM/WB (Weather Band) radio, speakers and antenna.
- 3.15.19 Cruise Control.
- 3.15.20 Adjustable tilt and telescoping steering column.
- 3.15.21 Daytime running lights.

### 3.16 DUMP BODY

The dump body shall be a square style (square cornered) that is 14 feet long  $\pm$  6 inches, with a 10 yard capacity (minimum). All bracing including side, tailgate, top rails, and rub rails of the body shall be sloped to shed debris, sealed and all seams shall be continuously welded.

3.16.1 The inside width of the body shall be 86 inches  $\pm$  4 inches. The sides shall be 34 inches  $\pm$  4 inches tall (standard 10 yard sides) with ends that are 42 inches  $\pm$  4 inches tall (standard 12 yard ends). The sides and front of the body shall be fabricated from a one-piece seamless HSLA (high strength low alloy) 10-gauge steel sheet with yield strength of 50,000 psi (minimum) or equal. The sides shall have a fully boxed top rail that incorporates a 2 inch wide by 8 inch high board pocket providing a flat area for side boards transitioning to a slope to shed debris. The sides shall have a sloped rub rail and shall be reinforced with four vertical box sections (not including the corner posts) or 2 horizontal box sections (sloped to shed debris) minimum. Front and rear corner posts shall be full depth and 8-gauge HSLA steel (minimum) or equal.

3.16.2 The floor and under body shall be constructed one of two ways.

Construction Method A (Cross Member): The floor shall be fabricated from a single piece  $\frac{1}{4}$  inch T1 type steel, or equal with minimum yield strength of 100,000 psi and a Brinell hardness of not less than 200. The transition from the floor to the side shall lap the sides by a minimum of 5 inches and shall be either a continuous 4 inch radius (minimum) bend of the floor material or shall be a tapered plate (narrowest at the rear of the bed) made from the floor material continuously welded at a 45 degree angle to the floor and side. The body shall have longitudinal sills made from 6-inch structural I-beam or equal and shall be gusseted and welded to each cross member. The cross members shall be 4 inch channel or equal and shall be located on 12-inch centers.

Construction Method B (No Cross Member): The floor shall be fabric from a single piece  $\frac{1}{4}$  inch AR400 steel or equal with minimum yield strength of 140,000 psi and a Brinell hardness of not less than 400. The transition to the side shall lap the sides by a minimum of 5 inches and shall be either a continuous 4-inch radius (minimum) bend of the floor material or shall be a tapered plate (narrowest at the rear of the bed) made from the floor material continuously welded at a 45 degree angle to the floor and side. The body shall have longitudinal sills made from 8 inch structural I-beam minimum. This design shall provide strength and durability equal to construction method A.

The rear hinge assembly, in either construction method, shall incorporate a minimum  $1\frac{1}{2}$  inch diameter nitrated pins (minimum),  $1\frac{1}{2}$  inch Stainless Steel, or greaseless bushing system. Rear hinge shall be located on the body to provide approximately a 12 inch overhang

3.16.3 The Tailgate shall extend a minimum 8 inches above the body side walls and shall be double acting. The tailgate shall be minimum 10 gauge steel construction with yield strength of 45,000 psi minimum. The tailgate shall have a box frame construction, 4 inch minimum, with a minimum of 2 horizontal stiffeners (in addition to the perimeter box structure) or minimum 6 panel construction (minimum) and shall be continuously welded. Gate shall be designed so that all box sections are sealed and tapered for shedding debris. The tailgate pins (upper and lower) shall be  $1\frac{1}{4}$  inch minimum diameter (minimum) and shall be easily removable with simple hand tools to allow the operator to swing the tailgate from either the upper or lower hinges. The upper hinges shall be the heavy duty offset type plates. The lower hinges shall also act as latches.

These latching hinges shall be air operated from inside the cab and shall be air open and spring close (air-trip tailgate release). The air chamber(s) shall be protected by the body. The fit of the tailgate in the closed position shall fit flush against the body so that there is not more than a 1/8 inch gap between the inside face of the tailgate and the body. A lifting eye of adequate strength to support the full weight of the tailgate shall be mounted on the top of the tailgate to facilitate removal and installation. Adjustable chain loops shall be installed at the end of the tailgate with chain slots on each side of the corner posts to hold the tailgate at the desired angle while pivoting from either the top or bottom hinges.

- 3.16.4 Hoist sub-frame shall be shear plate mounted at a minimum of three locations per side using spring type flex mounts (front minimum) and shear plates with grade 8 bolts (minimum). The sub frame shall be constructed of structural steel and designed to handle off-road conditions. A wear pad constructed of vulcanized rubber or other equivalent polymer shall be placed in the area of contact between the bed and the sub frame or truck frame.
- 3.16.5 A full width 24 inch deep Cab Shield shall be welded and properly supported to the front of the body. It shall be 7 gauge HSLA steel or equal and may require a cut out for the vertical exhaust stack.
- 3.16.6 There shall be a load covering system installed on the body with all necessary hardware (reference Pulltarps 9.5 system with load climber or equal).
- 3.16.7 An 8 inch deep minimum, full body width spreading apron made from 1/4 inch steel and reinforced with two full depth gussets shall be bolted to the rear corner posts.
- 3.16.8 Rope hooks, 1/2 inch minimum diameter, 4 mounted on each side below the rub rail, shall be equally spaced; positioned to tie down loads or tarps and welded to a cross member.
- 3.16.9 Two folding or tuck away entry ladders and steps/grab handles shall be mounted one on each side of the body to allow the operator to access the inside of the body.
- 3.16.10 Two 48 inch x 18 inch x 18 inch weather tight, locking, storage compartments shall be mounted to the frame between the rear tires and fuel tanks. The boxes maybe smaller depending on space available, but should maximize space with standard width tool boxes.

### 3.17 HOIST, HYDRAULICS AND POWER TAKE OFF (PTO)

The hydraulic system components and plumbing shall maintain oil at recommended operating temperatures, pressure, flow rate and purity. The system shall be designed to optimize performance and reliability.

- 3.17.1 An underbody mounted, hydraulically operated, dual cylinder, double acting, hoist of the arm, scissor, or roller-combo type shall be installed. The hoist shall be a NTEA class 90 with a 25 ton minimum lifting capacity and shall raise the body (12-inch body overhang) to a 50 degree angle minimum.
- 3.17.2 The PTO shall be an electric shift direct mount with the switch panel and indicator light mounted in the cab.
- 3.17.3 Hoist control shall be lever operated from the driver's seat and shall have a safety latch, with OSHA required detents. A safety light shall be installed in the dash and shall remain on whenever the bed is not in the fully down position.
- 3.17.4 The pump shall be sized to provide the manufacturer's recommended pressure and flow to optimize hoist performance. The hydraulic system shall include a 25 gallon oil reservoir

(minimum), a 10-micron return line filter, a screened suction line, and a built-in check valves to prevent rapid decent of the cylinders in case of a hydraulic failure.

3.17.5 Hoist prop, permanently mounted, shall provide a positive means of support to prevent the lowering of a raised hoist holding a fully loaded body

### 3.18 ELECTRICAL

The completed truck shall have rubber grommet mounted LED lighting system to include two (2) 4 inch stop, tail, turn lights (minimum), 2 ½ inch reflectorized side marker and identification lights, two (2) back up lights, and a license plate light with mount. An electric, weatherproof, backup alarm with automatic adjusting variable sound from 87 to 112 dB (A) shall be installed at the rear (reference Ecco model SA940, SA917, or equal). Install **Two (2) seven-conductor electrical socket** for trailer jumper cable (Ref. Pollak 11-720, or equivalent). One shall be wired per SAE J506b specification and **labeled SAE**. The other shall be wired per the attached **drawing # MEO-BP-01** and shall be **labeled DWR**.

### 3.19 PAINT

The cab, hood and fenders shall be finish painted with the manufacturer's standard white lead-free enamel paint (lead-free: 100-PPM maximum based on dry paint). The finish coat shall be free from runs, drips, sags, etc., and shall be evenly applied to provide a gloss finish. All other components shall be painted according to factory standard colors. Identification plates and labels placed on equipment and components by various manufacturers shall not be painted over.

### 3.20 MISCELLANEOUS

The following miscellaneous equipment shall be furnished and installed:

- Tow hook(s) or pin(s) mounted on the front for towing the vehicle.
- Standard tool kit including wheel changing tools.
- Rear mud flaps (Anti-Sail Type).
- Diamond tread cover on battery box

ELECTRIC BRAKE, WHEN APPLICABLE  
blue, 12 ga

TAIL LIGHT; CLEARANCE & ICC MARKERS  
brown, 12 ga

RIGHT TURN SIGNAL; STOP LIGHT  
green, 12 ga

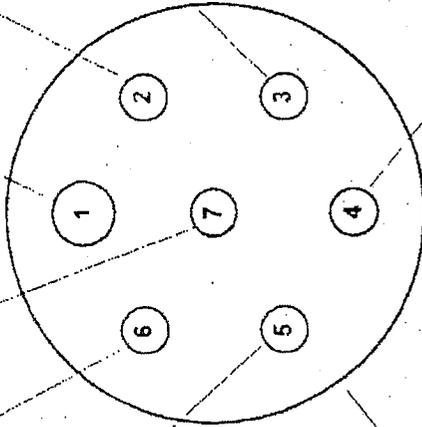
GROUND  
white, 10 ga

AUXILIARY  
black, 12 ga

LEFT TURN SIGNAL; STOP LIGHT  
yellow, 12 ga

FACING THE PLUG

BATTERY, WHEN APPLICABLE  
red, 12 ga



**NOTE:**

1. Use (7) wire rubber covered cable with (1) 10 ga and (6) 12 ga wires.
2. Use combination STOP, TAIL, and TURN lights.
3. Reference POLLAK 11-700 plug.

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES  
DIVISION OF MANAGEMENT SERVICES  
MOBILE EQUIPMENT OFFICE

WIRING DIAGRAM FOR TOW VEHICLE BUMPER PLUG

SCALE: N/A  
DRAWN: J Yang  
CHECK: APPROVED

DATE: 3-15-2000

DRWG. #

MEO - BP - 01

SHEET 1 OF 1

## ADMINISTRATIVE REQUIREMENTS 18R1-2008-01

### 1. GENERAL PROVISIONS

Each unit and any accessory shall be delivered completely assembled and ready for operation. All equipment options and accessories are to be factory installed. If factory installed options are not available, dealer-installed options may be acceptable if approved by the State in advance. All dealer-installed options shall be listed on each bid.

To be considered for the bid, the supplier shall be the equipment manufacturer, an authorized factory dealer or representative thereof. The qualified supplier shall also be capable of providing parts, service, warranty, and training in California for the equipment specified herein. The supplier shall be capable of providing replacement part(s) within three (3) working days after a purchase order is submitted to the supplier.

Each bid shall include specification(s), drawing(s), diagram(s), schematic(s), published literature(s), photo(s), and illustration(s) pertaining to the equipment bid. Only new models in current production that are cataloged by the manufacturer, and for which printed specifications are available shall be considered. All equipment and accessories cataloged as standard, unless superseded by these specifications, shall be furnished and included in the purchase price of each unit. Special option(s) may be included only if recommended by the equipment manufacturer and approved in advance by the State.

The State reserves the right to purchase a minimum of three (3) additional units at bid prices for State Agencies and California Local Government Agencies. Orders for such additional units shall be placed within 150 days of bid award date.

### 2. DESIGN AND WORKMANSHIP

Component parts of each unit shall be new (unused), current model year production, and of proper size and design to safely withstand the maximum stresses imposed. The equipment shall be provided with components, accessories, materials, design practices, and workmanship that are the best available in the industry for the equipment type, and the operational conditions to which the equipment will be subjected. Component parts shall be designed and manufactured to give maximum performance, service life, and safety. The manufacturer's recommended torque rating of each driven part shall be equal to or exceed the torque rating of its driving member. The equipment shall be a product of good workmanship and shall be free from any defects that will affect their appearance, use, or serviceability.

Material:

Construction shall be of all new (unused) material free of rust and any defects. All structural components in the assembly shall be fabricated from a single piece of material. Spliced components are not acceptable. Brackets, gusset plates, etc. to be welded shall be of the same material as the adjoining material. The finished product shall be free of dents and warpage. The use of body filler is unacceptable.

Fasteners:

Nuts, bolts, and washers shall comply with the most current engineering and manufacturing practices and standards. Frame (flange) bolts and nuts shall be used to attach components to vehicle frame. Frame bolts and nuts shall be of compatible material to prevent electrolysis with frame member. Bolt lengths shall be such that a minimum of two threads shall extend beyond the nut when tightened. Nuts shall be the locking type.

Structural members shall use SAE Grade 8, or better, bolts with matching nuts.

Non-structural members shall use SAE Grade 5, or better, bolts with matching nuts.

Metal Shaping:

All breaks shall be free of cracks. Radii shall be at least twice the thickness of the material or in accordance with the requirements established by ASTM for the particular material being formed, whichever is greater. All holes shall be round, of the proper dimension, perpendicular to the material they are produced in, and finished smooth. Oblong holes or holes drilled, bored, etc. at angles are not acceptable. Holes and slots shall be drilled, punched, saw cut, plasma cut, or milled; torch cut is unacceptable. Sharp corners on all material shall be rounded smooth to prevent injury.

Welding:

Welding shall comply with the most current standards as set forth by American Welding Society (AWS) and American National Standard Institute (ANSI).

Intermittent or spot welds shall be spaced and proportioned to provide ample strength for the material being welded. Weld sizes not indicated shall be equal to the thickness of the least of the joined plates

All welds shall be properly fused, displaying proper penetration and a professional finish, and must meet the qualification requirements of applicable

AWS specifications. Examples of unacceptable welds are:

- |    |          |    |                    |
|----|----------|----|--------------------|
| a. | Cracks   | d. | Excessive Splatter |
| b. | Undercut | e. | Blow Holes         |
| c. | Overlap  | f. | Slag Entrapment    |

Any weld failing to comply with the AWS specification, or failing to pass a quality assurance inspection performed by the State, shall be corrected by the manufacturer at the manufacturer's expense, and be corrected off State property. Only a welder who is AWS certified to perform the type, size, and position of the weld in accordance shall correct deficient welds.

Grinding of welds must have prior approval of the Department of Water Resources' Mobile Equipment Office engineering staff. Welds that have been ground without approval shall be subject to complete re-welding upon request, at no additional cost to the State. The covering of welds with body fillers or similar materials is unacceptable. Warp of assembled parts is unacceptable.

**Electrical System:**

Minimum electrical equipment shall comply with all Federal Motor Vehicle Safety Standards and State of California Department of Motor Vehicle regulations. All lights, signals, and markers shall be recessed, mounted in rubber grommets, unless otherwise specified. Mounting holes for lights shall be the proper dimension as recommended by the manufacturer. Mounting holes shall be punched, plasma cut, or saw cut and finished smooth; torch cut holes are unacceptable.

All wiring installed shall be the stranded copper type and shall have cross-linked polyethylene insulation. All wiring shall be protected in plastic loom or conduit, unless otherwise specified. Adequate size gauge of wire to the lights shall be used in accordance with SAE standards for distance from power source and load demand. The ends of all stranded conductors cut shall be mechanically stripped and fitted with insulated type terminals. The terminals shall be mechanically crimped securely with appropriate tool(s). All splices and connections shall be sealed against moisture. Scotch Lock wire-piercing devices shall not be used. Ground return connections shall be attached to the vehicle frame, body and/or engine. In cases where the engine or body is mounted on rubber or other insulation, proper ground shall be provided with grounding straps.

The edge of all metal members, which a wire harness or loom pass through, shall be deburred and bushed with suitable grommets. In general, wire routing shall be such that maximum protection is provided by the vehicle sheet metal and structural components. All wiring shall be

mechanically secured to prevent sagging and movement. Adhesive type mounting will not be accepted. Electrical devices, lamps, etc., requiring periodic service and/or removal shall be provided with adequate wire length for ease of access.

Hydraulic System:

Hydraulic lines shall be sized as recommended by the manufacturer of the component to which they attach, and shall be adequate for the use intended. All hoses and plumbing shall have a minimum number of bends, and shall be free of any kinks. All bends in hoses and tubing shall be not less than the minimum radius as recommended by the hose or tubing manufacturer. Where applicable, plumbing components shall be protected by frame members. Any hoses routed around or through areas, which may cause abrasion and cuts, shall be protected as necessary. Through holes for routing hose and tubing shall include grommet. All hydraulic components and plumbing shall be mechanically mounted and supported to withstand extensive field use. Adhesive type mounting will not be accepted. Fittings shall be of the proper size to match the hydraulic line to which they attach. Compression type fittings shall not be used in the system. All threads shall be North American type threads. British, metric, etc. threads are unacceptable.

The use of black pipe, galvanized pipe, pipe fittings, etc. shall not be used in the hydraulic system. All reservoir inlets and outlets shall incorporate flange type fittings. Pipe nipples welded to the reservoir is unacceptable.

3. RULES, REGULATIONS, STANDARDS

The following rules, regulations, and standards shall apply to each unit supplied:

- A. Federal Motor Vehicle Safety Standards (FMVSS).
- B. California Vehicle Code.(CVC)
- C. California Code of Regulations (CCR), Title 13, "Motor Vehicles" and Title 8, "General Industry and Construction Safety Orders".
- D. Occupational Safety and Health Agency (OSHA)
- E. Society of Automotive Engineers (SAE)
- F. American Society of Mechanical Engineers (ASME)
- G. American Society for Testing and Materials (ASTM)
- H. American National Standards Institute (ANSI).
- I. American Welding Society (AWS).
- J. National Electric Code (NEC).

4. DELIVERY

Supplier shall be responsible for, and bear all costs associated with, the

delivery and unloading of each unit. Each unit shall be delivered to:

Department of Water Resources  
Corporation Yard  
4300 West Capitol Ave.  
West Sacramento, CA 95691

Caravan delivery of vehicles from points outside the State of California will not be accepted. Driveaway-towaway operations for truck cab and chassis is not acceptable. The supplier shall not drive each vehicle for more than 250 miles total. The supplier will be charged a rate of \$0.50 per mile for each mile exceeding the 250-mile limit. This charge shall be deducted from the purchase order price for each vehicle exceeding the 250-mile limit.

The supplier shall be responsible for unloading each unit delivered to the above address.

5. INSPECTION

In-Process Inspection: Prior to final assembly, the first unit on the order shall be inspected during fabrication to determine timely manufacture, verify build quality, and to identify and resolve any discrepancies with the contract specification. This in-process inspection will take place at the manufacturer's facility and will be conducted by State personnel. The supplier shall call the California Department of Water Resources, Division of Operations and Maintenance, Fleet Management Office, at (916) 653-7681 when the first unit on the order is considered to be at least 50% complete and/or prior to the permanent installation of major components.

A written inspection report will be submitted to the supplier indicating that the unit is either acceptable or unacceptable. If a unit is determined unacceptable, the inspection report will list those deficiencies that must be corrected to make the unit acceptable. All deficiencies must be corrected prior to final assembly.

If the manufacturer's facility is within the State of California, this inspection trip shall be State-financed at no cost to the supplier. If the manufacturer's facility is outside the State of California, the supplier shall burden all travel and per diem costs to send one State employee to the manufacturer's facility for the in-process inspection.

Pre-Delivery Inspection: Prior to final shipment to the delivery destination as indicated on the purchase order, each unit shall be inspected by State personnel to determine compliance with the contract specification. The supplier shall call the California Department of Water Resources, Division

of Management Services, Transportation Office, at (916) 653-9051, when a unit is complete and ready for inspection. The inspection shall be held at the supplier's place of business in California. If the supplier's place of business is outside the State of California, the supplier shall burden all travel and per diem costs to send One State employee to the supplier's place of business for this inspection.

Each unit shall be serviced, washed and ready for inspection. Where applicable, the supplier shall complete and sign the supplier pre-delivery inspection (PDI) form and the supplier shall note the appropriate Purchase Order number and line item on each form.

A written inspection report will be submitted to the supplier indicating that the unit(s) is either acceptable or unacceptable. If a unit is determined unacceptable, the inspection report will list those deficiencies that must be corrected to make the unit acceptable. All deficiencies must be corrected prior to final shipment. If necessary, State personnel will re-inspect each unit to determine compliance. If the supplier's place of business is outside the State of California, the supplier shall burden all travel and per diem costs to send one State employee to the supplier's place of business for any additional re-inspection.

Once a unit is determined to be acceptable, the supplier can commence shipment of said unit. The inspection report must state "OK to ship" or "OK to deliver" before the supplier can ship each unit.

Final Inspection: After delivery of each unit, the State will conduct a final inspection to check for shipping damage, determine that all deficiencies have been corrected, and verify receipt of all required documents and manuals. The State will have five working days, starting from the date that the State receives the unit and all required documentation, to conduct a final inspection.

If the unit is deemed unacceptable, the supplier must remedy, at the supplier's expense, all deficiencies within seven days after receipt of written notification. The supplier shall remove said item from the State's facility if major corrections are required. If the supplier fails to remedy all deficiencies or remove said item from the State's facility within the specified period, the State may forward the said item to the supplier by common carrier at the supplier's expense and risk. The supplier must correct any deficiencies noted at the final inspection before the unit will be considered for final acceptance and payment. Delivered units will not be considered for final acceptance and payment until all required documents (i.e., invoice, vehicle registration documents, weight certificate, parts books, operator's manuals, service manuals, lubrication instructions and charts, warranty information, certifications, questionnaires, etc.) are

received by the Department of Water Resources.

Acceptance of delivery or placement in operation of any unit shall not release the manufacturer from liability for faulty design, workmanship, or materials appearing even after final payment has been made.

6. PARTS BOOKS AND MANUALS

One (1) set of equipment operation and safety manuals, service and maintenance manuals, troubleshooting and repair guides, and parts books shall be provided for each complete system/unit, if available. As a minimum, operation and safety manuals, service and maintenance manuals, troubleshooting and repair guides, and parts books shall be provided for all major component(s). CD ROMS are preferred in lieu of hardcopy manuals.

7. VEHICLE REGISTRATION DOCUMENTS REQUIRED (Final Stage Manufacturer)

Each unit will be registered with the State of California, Department of Motor Vehicles, and licensed for on-highway use by the Department's Transportation Office. All documentation supplied for registration shall contain the following Physical and Post Office Box addresses:

State Department of Water Resources  
1416 9<sup>th</sup> Street  
Sacramento, CA 95814

State Department of Water Resources  
P. O. Box 942836  
Sacramento, CA 94236-0001

A final stage manufacturer's label shall be affixed to the completed vehicle in accordance with FMVSS and the supplier shall furnish a weight slip, from a certified weighmaster, showing the vehicle tare weight for each unit at the time of delivery.

8. TRAINING

The supplier, at his expense, shall provide a qualified factory-authorized service representative to provide operational and technical training for equipment operators and shop mechanics. Training shall consist of a combination of classroom discussion and/or audio-visual aids and hands-on operation for the operators. Training shall also include safety instructions, operation, maintenance, and lubrication requirements, any special adjustments and minor repair procedures. Shop mechanics shall

also receive procedures for ordering parts, repair manual and parts book orientation.

The training shall be for one 8-hour day, or longer if the supplier deems necessary. The date of the training shall be coordinated between the supplier and the Department of Water Resources' Transportation Office at (916) 653-9051; however, the training will be completed within 30 days after final delivery. The full cost of this service shall be included in the bid. Equipment training will be held at each field division receiving a unit.

9. WARRANTY

The manufacturer shall guarantee that each unit to be a product of good workmanship, and shall be free from defects in workmanship and materials for a minimum period of one (1) year, 1000 hrs, or 12,000 miles, whichever occurs first. The warranty shall start on the first day The Department of Water Resources puts the unit into service. The Department will notify the supplier, by mail, of the in-service date.

This warranty shall cover the entire unit (i.e., bumper to bumper), including special modifications and any optional equipment or accessories being supplied, and shall be for 100 percent parts and labor of all repair costs. A copy of the manufacturer's warranty for each complete unit shall be supplied with each unit.

The supplier shall be responsible for all costs associated with pickup and delivery of units requiring warranty repair. The supplier may elect to repair the unit via traveling mechanic. All costs associated with truck rental, travel time, per diem, etc., shall be burden by the supplier.

10. PAYMENT

Process for payment will be initiated after each unit on the purchase order is received and deemed acceptable. All discount periods start after final acceptance of each unit on the purchase order.