**SPECIFICATIONS FOR**

**DUAL-ENGINE, SIX-WHEEL DUSTLESS WATERLESS**

**STREET SWEEPERS WITH BELT CONVEYOR (PM 10) COMPLIANT**

**GENERAL**: Street Sweeper furnished under this specification shall be the manufacturer's current year conventional design, having the latest waterless and dust control technology with PM 10 compliance with dual engine (separate engines for propulsion and sweeping). Unit bid must be PM-10 Compliant and be certified by the South Coast Air Quality Management District (California) (SCAQMD). All necessary accessories customarily furnished whether stipulated herein or not, with such modifications and attachments as may be necessary to enable the vehicle to function reliably and efficiently in sustained operation. Further, all vehicles furnished under this specification shall comply with the most current Nevada Revised Statutes, Federal Motor Vehicle Safety Standards, Federal Environmental Protection Agency Emission Control Standards for new motor vehicles (currently vehicles certified prior to the current year requirements shall not be considered).

Street Sweeper shall be used by the Nevada Department of Transportation for street sweeping, year around at altitudes up to 9,000 feet. Road speed shall be 65 MPH at gross vehicle weight rating at manufacturer's R.P.M.

Specify Make & Model \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Specify Road Speed \_\_\_\_\_\_\_\_\_\_MPH @ \_\_\_\_\_\_\_\_\_\_\_\_\_\_RPM

Vehicle bid must include a certification plate stamped 33,000 GVW or higher, and vehicle bid shall meet and or exceed this rating in all component parts.

Specify G.V.W. Rating\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FRAME RAILS: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Type Single

Treatment Minimum heat treated,80 KSI Specify Heat treat \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Height: Minimum 10” Specify Height \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Thickness: Minimum 11/32” Specify Thickness \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cross Members: Heavy duty, steel

Paint: Gloss Black

**WHEELBASE: COMPLIES \_\_YES NO\_\_\_\_**

B B C: 106” minimum B B C Measurement: \_\_\_\_\_\_\_\_\_\_

B C A: 114” minimum B C A Measurement: \_\_\_\_\_\_\_\_\_\_

Wheelbase: 180” minimum WB Measurement: \_\_\_\_\_\_\_\_\_\_

Overhang: 21” minimum Frame overhang Measurement: \_\_\_\_\_\_\_\_\_\_

**Note: Final measurements to be determined at scheduled prebuild meeting.**

**CAB EXTERIOR COMPLIES \_\_\_\_YES NO\_\_\_\_**

Conventional design

**Paint:** Manufacturers Bright White

The complete unit shall be primed with etching catalyzed primer complete unit is to be painted BRITE WHITE at a thickness of 5 mil except for the black frame rails.

**Note: Regarding the cab, no chrome or aluminum accessories are to be painted.**

**WINDOWS: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Driver and Passenger: Power and tinted.

**HOOD: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Forward tilt type

Poly or fiberglass with fenders and inner splash guards

Specify Hood composition \_\_\_\_\_\_\_\_\_\_\_

Fenders shall tilt with hood.

**FRONT BUMPER:**  **COMPLIES \_\_\_\_YES NO\_\_\_\_**

Standard

Full width of vehicle with two (2) tow hooks

**MIRRORS: (Heated) COMPLIES \_\_\_\_YES NO\_\_\_\_**

Manufacturers standard heated, power adjustable side mirrors with dual axis and 8” convex under primary.

Right and left side fender/hood mounted spot mirrors, heated.

**WINDSHIELD WIPERS**: **COMPLIES \_\_\_YES NO\_\_\_\_**

Cowl mounted.

Heavy-duty

Intermittent

Large capacity washer reservoir

**CAB INTERIOR:**

**SEATS: COMPLIES \_\_\_\_YES NO\_\_\_\_**

**Driver and Passenger Seats:**

Cloth

Hi-back

Air Suspension

Air Lumbar

Cushion Tilt

Dual Arm Rests

**GAUGES: (Analog or Digital) COMPLIES \_\_\_\_YES NO\_\_\_\_**

Dual gauges (L/S and R/S)

Primary & Secondary Air

Air Cleaner Restriction Indicator (dash mounted)

Speedometer

Odometer (Left side only)

Tachometer

Oil Pressure

Transmission Temperature

Coolant Temperature

High coolant temperature warning light and chime

Low coolant level warning light and chime

Fuel and DEF

Voltmeter

**HEATER / AC:** **COMPLIES \_\_\_\_YES NO\_\_\_\_**

Manufacturers Maximum Available BTU

**RADIO:** **COMPLIES \_\_\_\_YES NO\_\_\_\_**

Manufacturer’s standard with Blue Tooth, USB and auxiliary inputs

**AUXILIARY PLUGS: COMPLIES \_\_\_\_YES NO\_\_\_\_**

1- 12-volt aux. plug

1 – USB plug

**STEERING WHEEL:** **COMPLIES \_\_\_\_YES NO\_\_\_\_**

Dual operator controls (Premium)

Tilt and telescoping left and right positions.

**STEERING BOX:** **COMPLIES \_\_\_\_YES NO\_\_\_\_**

Hydraulic Power

Dual operator

**ENGINE: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Displacement: 6.7 Liter minimum (as advertised by the engine manufacturer)

Specify Displacement: \_\_\_\_\_\_\_\_\_\_\_\_\_

Horsepower: 280 Minimum Specify Horsepower: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Torque: 660 Minimum Specify Torque: \_\_\_\_\_\_\_\_\_\_\_\_\_

Engine Brake: Exhaust Type

Block Heater 110-Volt

Fuel Filter: Primary with water separator and heater

**AIR CLEANER: COMPLIES \_\_\_YES NO\_\_\_\_**

Single stage dry-type with inner safety element.

**COOLING SYSTEM: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Radiator: Heavy Duty – High Efficiency

Antifreeze: -34° Fahrenheit Minimum

Fan Clutch: Air or Electric Operated, Thermostatically Controlled

**FUEL TANK: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Type: Aluminum

Quantity: 1

Capacity: 50 Gallon minimum

Location: Left side mounted as far forward as possible

**EXHAUST: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Vertical

Exhaust stack tip: Curved

Muffler Guard: Stainless

**AIR COMPRESSOR:** 18 CFM minimum **COMPLIES \_\_\_\_YES NO\_\_\_\_**

**AIR DRYER: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Bendix Model AD-9SI or current Bendix model.

**TRANSMISSION: COMPLIES \_\_\_YES NO\_\_\_\_**

Allison 2500 automatic

Heavy-duty oil cooler.

**FRONT AXLE: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Capacity: 12,000 LB. Minimum

Wheel Bearings: Lubricated with Visual Type Hub Caps

Suspension: Leaf Spring with Shock Absorber.

**No aluminum spring hangers**

**REAR AXLE: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Capacity: 23,000 Lb. Minimum

Suspension: Manufacturers “heavy duty” Air Suspension with dump valve and shock absorbers.

**Note:** Control of air spring suspension shall be by a single transport/sweep switch on the control console.

**No aluminum suspension hangers**

Differential: Two speed

Hubs: Cast Iron

**Ratio:** **To be determined at scheduled prebuild meeting**

**BRAKES: COMPLIES \_\_\_\_YES NO\_\_\_\_**

**(Must comply with all Federal stopping requirements)**

**Front:**

Drum Type S-Cam 15” X 4”

Chamber Type 20 Sealed

Dust Shields

**Rear:**

Drum Type S-Cam 16-1/2” X 8”

Chamber Type 30 Sealed

Dust Shields

**TIRES: COMPLIES \_\_\_\_YES NO\_\_\_\_**

**Front: Highway Type**

Size: 11R22.5 Major Brand Brand of Tire: \_\_\_\_\_\_\_\_\_\_\_\_\_

Load Range: G Load Range: \_\_\_\_\_\_\_\_\_\_\_\_\_

Speed Rating: 65 MPH

**Rear: Highway Type**

Size: 11R22.5 Major Brand Brand of Tire: \_\_\_\_\_\_\_\_\_\_\_\_

Load Range: G Load Range: \_\_\_\_\_\_\_\_\_\_\_\_\_

Speed Rating: 65 MPH

**Note:** **Front tires shall be balanced with external lead weights**.

**WHEELS: COMPLIES \_\_\_\_YES NO\_\_\_\_**

**Front:**

Quantity: 2

Type: Steel, Hub Piloted,10 hole

Size: 22.5 x 8.25

Color: Powder coated, Bright White wheels

**Rear:**

Quantity: 4

Type: Steel, Hub Piloted,10 hole

Size: 22.5 x 8.25

Color: Powder coated, Bright White wheels

**ELECTRICAL: COMPLIES \_\_\_\_YES NO\_\_\_\_**

**Batteries**: “Maintenance Free” heavy duty

**CCA rating**: 1850 at 0 degrees minimum Specify CCA \_\_\_\_\_\_\_\_\_

**Battery Disconnect Switch**: located inside of cab, factory or dealer installed.

**Jumping Posts**: External

**Starter:** Heavy duty

**Alternator:** 160 Amp minimum

**Note:** Console shall have left/right primary driver switch

**HORNS:** **COMPLIES \_\_\_YES NO\_\_\_\_**

Dual Electric Street

**LIGHTS: (All standard federally mandated lighting) COMPLIES \_\_\_YES NO\_\_\_\_**

Halogen headlights

Day time run lights (DRL)

**Note: All lights to be LED style lights**

**BACK UP ALARM**: 87 decibels minimum. **COMPLIES \_\_\_YES NO\_\_\_\_**

**FIRE EXTINGUISHER: COMPLIES \_\_\_\_YES NO\_\_\_\_**

Vendor shall provide one (1) each, 5lb., refillable, ABC type Fire Extinguisher with metal head with mounting bracket (Amerex #862 Part Number 7023-0105)

**Note: NDOT to install.**

**WHEEL CHOCKS**: **COMPLIES \_\_\_YES NO\_\_\_**

Worden PN# OUC (8”H X 8.5” W X 12” L) or approved equivalent. Mounting location to be determined at prebuild meeting.

**Note: No metal wheel chocks**

Chock Manufacturer and PN \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SWEEPER MODULE:**

**BATTERY:**

Heavy-duty "MAINTENANCE FREE” battery, 12-volt with minimum CCA rating of 1000 at 0 degrees Fahrenheit.

Specify CCA Rating \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BROOM MAIN:** **COMPLIES\_\_\_YES NO\_\_\_**

Shall be not less than 60” long and not less than 35” in diameter, double wrapped at both ends. Broom shall be driven by a directly mounted hydraulic motor. Broom speed shall be variable and controlled in the cab by the operator while moving. Sweeping path shall not be less than 10’ wide with right and left brooms activated. Broom shall be pneumatically raised and lowered. Broom down pressure shall be adjustable by the operator from the cab while sweeping. Broom shall stop and raise when transmission is placed in reverse. Broom shall be equipped with a steel main broom hood, to prevent material from being thrown into following traffic and also capable of channeling overthrow back into the dirt chamber. Plastic hood shall be not acceptable due to debris exposure and cracking. Main broom shall be equipped with a one (1) LED work light mounted on the right-hand side.

Specify Length \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Diameter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BROOM REGULATORS: COMPLIES\_\_\_YES NO\_\_\_\_**

Dual main broom regulators provided in the cab. Regulators shall be used to adjust the main broom down pressure side to side.

**BROOM SIDE:**  **COMPLIES \_\_\_YES NO\_\_\_\_**

Shall be minimum 42” in diameter, protruding not less than 13” beyond the outside of the tire of the chassis while sweeping. Broom shall consist of five (5) plastic segments, filled with 26” long tempered steel wire. Brooms shall be driven by a hydraulic motor directly mounted to the broom disc plate. Broom speed shall be variable and controlled in the cab by the operator while sweeping. Broom rotation (forward/reverse) shall be selectable in the cab by the operator. Broom rotation shall stop and raise automatically, when transmission is placed into reverse or when sweeper is in transport mode. Due to curb and road obstructions in the roadway a trailing arm design shall be supplied with vertical digger brooms. Forward facing digger type arm assembly is not acceptable.

Electrically operated tilting mechanism that allows operator to change inward/outward tip of the right and left side brooms to 20°. Angle can be changed individually from the cab while sweeping. This allows efficient sweeping of irregular surface that could require special manual settings of the broom.

To hold broom pattern regardless of up and down motion, arm suspension design shall be parallelogram type. Broom down pressure shall be operator adjustable from the cab while sweeping or stationary. Each broom shall be equipped an LED work light.

Specify Broom Diameter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CONTROLS:**  **COMPLIES \_\_\_YES NO\_\_\_\_**

Sweeper controls shall be mounted on a fixed operators console located between the left and right operators position. Controls shall include all sweep, hopper, elevator, and lighting functions. Switches for sweep, water spray, and lighting functions shall be conventional rocker switches. Membrane or touch pad switches shall not be accepted. Unit shall include a sweep resume option, sweep resume shall pick up and stow all sweep gear by operating one switch. Reactivating the switch shall engage all sweep gear to preset operating conditions.

**CONVEYOR:** **COMPLIES \_\_\_YES NO\_\_\_\_**

Shall be high strength belt type with molded full width cleats. Squeegee type flight system shall not be accepted. Conveyor shall be capable of effectively sweeping debris of varying sizes (trash 9 inches in height to fine sand) without the need to make any adjustments to the conveyor. Lower portion of conveyor shall be capable of raising 9” while sweeping. Conveyor rotation (forward/reverse) shall be selectable from the cab without stopping any broom. Conveyor speed shall be variable for the cab. Conveyor shall automatically stop and raise when transmission is placed in reverse or transport mode. Conveyor shall include an audible position alarm providing a warning to the operator when in “hopper dump” mode. Conveyor shall be able to load hopper to 100% of rated useable capacity. Conveyor to be equipped with a wear resistant hardened steel lower conveyor roller.

**DRY DUST CONTROL SYSTEM: COMPLIES \_\_\_YES NO\_\_\_\_**

Sweeper shall include a centrifugal dust evacuation fan, large envelope filter with hydraulic shaker for dust removal, dust skirts on the side and main brooms, and dust separator screen in hopper. The dry dust control system shall be PM-10 Compliant and be certified by the SCAQMD (California) Rule 1186.

**ELECTRICAL: COMPLIES \_\_\_YES NO\_\_\_\_**

Sweeper electrical system shall be independent from the chassis electrical system. Sweeper shall have a 12-volt 120-amp alternator. Sweeper wiring harness shall be color coded and hot stamped with appropriate word designation labeled every four inches, i.e. “Ignition”, “Side Broom” on each wire. All circuits must be protected by circuit breakers.

**ENGINE:**  **COMPLIES \_\_\_YES NO\_\_\_\_**

Shall be a four cylinder, turbocharged, diesel engine, minimum 74 horsepower @ 2400rpm, 195 lb-ft of torque @ 1700 rpm, Tier IV Final. Engine shall be equipped with a full flow oil filter, heavy-duty two stage dry element air cleaner with safety element, fuel filter and fuel/water separator. Engine shall be protected by anti-freeze to -34 degrees Fahrenheit. Shall also include a cab mounted filter restriction indicator. Engine, radiator and all auxiliary engine driven devices shall be isolation mounted through a dedicated engine frame.

Specify HP \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ @ \_\_\_\_\_\_\_\_\_\_\_\_ RPM

**HOPPER ENGINE FUEL TANK:** Shall include a minimum 50-gallon single fuel tank.

Specify Tank Capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**HOPPER: COMPLIES \_\_\_YES NO\_\_\_\_**

Hopper shall have a volumetric capacity of not less than 4.5 cubic yards with a useable capacity of not less than 3.3 yards. Hopper inspection door shall be provided. Hopper door, sides and top shall be a minimum of 11-gauge steel. The hopper floor shall be a minimum of 7-gauge steel. Hopper shall dump at varying heights through a height of 10’ when measured at the lowest point under the open hopper chute. Hopper shall be able to tilt (dump) to an angle of not less than 50°. Lift mechanism shall be a double stage scissors lift system utilizing two (2) hydraulic cylinders. Lift capacity shall be not less than 10,000 lbs. Hopper dump mechanism shall utilize two (2) hydraulic cylinders with a bore of not less than 3.5” and a stroke of not less than 19.8”. Scissor lift joint shall be equipped with self-lubricating bronze bearings. Hopper shall hydraulically side shift toward hopper receptacle in order to facilitate dumping hopper into another vehicle. Hopper load shall be always visible from the cab through a front facing hopper window and an upward facing skylight. To prevent overloading beyond the manufacturer’s GVW rating, unit shall be equipped with a cab mounted “**FULL LOAD**” warning light that is activated by hopper weight. Unit shall be equipped with safety interlock to prevent dumping without engaging the parking brake. Cab shall be equipped with an “**UNLEVEL GRADE**” indicator. Sweeper shall not require jack stands and/or outriggers to stabilize the chassis during dumping.

Hopper Liner to protect the hopper against corrosion and wear, to facilitate the removal of the debris when dumping. This liner shall provide protection such that the hopper shall be warranted for the life of the sweeper. Bare steels

Specify Hopper Capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lift Capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**HYDRAULIC SYSTEM: COMPLIES \_\_\_YES NO\_\_\_\_**

Reservoir capacity shall be not less than 32 gallons with outside level indicator. Reservoir vent shall be equipped with a 10-micron spin on filter. Hydraulic oil return lines shall have a 10-micron full flow filter with bypass. Pumps shall be a 26 GPM, three section gear driven pump with dual inlets and a 25 GPM single section piston pump dedicated to the dust control system. Cab shall be equipped with filter restriction indicator that shall light before filter begins to bypass. Hydraulic circuits shall be equipped with quick disconnect check ports for ease of testing. High pressure hydraulic lines shall be equipped with flat face “O” ring type fittings.

Specify Capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Specify Pump GPM \_\_\_\_\_\_\_\_\_\_\_\_\_

**LIGHTS:** **COMPLIES \_\_\_YES NO\_\_\_\_**

Hopper shall be equipped with the following lights:

* One (1) Rear Identification
* Two (2) LED Side Broom (one per side)
* One (1) LED Main Broom spot
* Rear Clearance
* Two (2) LED Amber Strobe Lights (one (1) mounted on the cab and one (1) mounted on the left rear of the sweeper. (Strobe lights shall be protected by a metal cage).
* One (1) Amber LED arrow stick shall be mounted on the rear.

**The following warning indicators shall be located in the cab**

* Hydraulic Filter Restriction
* Air Filter Restriction
* Low Spray Water
* “**FULL LOAD**”
* “**UNLEVEL GRADE**”
* Low Voltage

**LUBRICATION SYSTEM: COMPLIES \_\_\_YES NO\_\_\_\_**

Automatic lubrication system for the complete sweeper and chassis. Bearing lubrication is automatically delivered to each lube point through individual nylon lines from a 2-liter reservoir. The process is controlled by a solid-state timer with 14 settings between 3.5 to 65 minutes.

**PNUEMATIC SYSTEM: COMPLIES \_\_\_YES NO\_\_\_\_**

Shall be equipped with separate air tank for the sweeper air components, with a PR4 air valve to protect the chassis air system. All pneumatic cylinders shall be interchangeable. Pneumatic cylinders shall be rated at 150 PSI and have a separate rod seal and wiper to prevent contamination entering the cylinder.

**SPRAY WATER SYSTEM:** **COMPLIES \_\_\_YES NO\_\_\_\_**

Water tank shall be constructed of non-rusting material. Capacity shall be not less than 315 U.S. gallons. Water pump shall be centrifugal type capable of running dry indefinitely without damage. Pump shall be constructed of aluminum. Pump shall not contain ferrous metal parts that can come in contact with water. Pump shall be capable of a minimum of 6 GPM @ 80 PSI. Water system shall be equipped with three (3) brass spray nozzles on each side broom and four (4) brass spray nozzles on the rear spray bar. Rear spray bar shall be constructed of non-ferrous components to prevent contamination. Water to the side brooms and rear spray bar shall be controlled in the cab by electrical activation switches. Water flow control valves shall be non-ferrous heavy-duty “**AGRICULTURAL**” type. A low water indicator light shall be located in the cab. Sweeper shall be equipped with an automatic internal hopper/conveyor flush and wash down system. System shall include a manual bypass valve to divert hydrant water into system without necessitating filling of the water tank.

Specify Tank Capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pump GPM \_\_\_\_\_\_\_\_\_\_\_\_\_

Bypass valve shall be located on the curb side of the vehicle. Water fill hose shall not be less than 16’ in length, equipped with a 2 ½” NST hydrant coupler. Vehicle shall be equipped a 25’wash down hose. Vehicle shall be equipped with an inline water filter to prevent contaminants from entering the water tank. Water tank shall be equipped with an anti-siphon device to prevent contamination of water tank supply, compliant to American National Standard Air gaps in plumbing systems ASME A112.12-1991. The dry dust control system shall be PM-10 Compliant and be certified by the SCAQMD (California) Rule 1186.

**SWEEPER INSTRUMENTS: COMPLIES \_\_\_YES NO\_\_\_**

* Tachometer
* Hour meter
* Oil pressure gauge
* Voltmeter
* Air cleaner service indicator
* Low coolant level warning light
* Auxiliary engine running light
* Main broom down pressure
* Hydraulic filter restriction indicator
* Sweeper out of level indicator
* No spray water indicator
* Raised hopper indicator
* Hopper full indicator can be light or gauge.
* Console mounted air pressure gauges to indicate side broom hold down air pressure, one for each side broom.

**GENERAL BID REQUIREMENTS**

**NOTE: THE FOLLOWING REQUIREMENTS PERTAIN TO ALL ITEMS LISTED WITHIN THIS BID SPECIFICATION.**

**DELIVERY/PAYMENT:** Delivery shall be considered complete and ready for payment process once all ancillary, allied, optional equipment, and manuals have been received, all systems checked against the specifications and the complete unit is deemed operational.

**LINE SHEET**:  Two (2) Line set tickets shall be furnished with each vehicle.

**MANUALS:** For each vehicle being built, including cab and chassis, ancillary, allied or optional equipment purchased as built, the following manuals shall be available in hard copy, online or Flash Drive format.

* Two (2) Parts Catalogs
* Two (2) Shop Manuals
* Two (2) Operator's Manuals
* Two (2) Operator Training DVD’s/flash drives
* Two (2) Electrical System Schematics/Drawings
* **Note:** Vendor to provide all information and / or hyper-links for access to manufacturers online manuals and training.

**PRE-BUILD MEETING:** Awarded vendor shall schedule a Pre-Build meeting within two weeks of bid award, prior to manufacturing/fabrication, to confirm all build specifications and dimensions.

**PRE-DELIVERY SERVICE:** Awarded vendor shall perform a complete pre-delivery service prior to delivering the unit to NDOT.

* All Fluids filled to proper levels.
* Cooling system shall be checked and filled to proper level and shall contain extended life antifreeze to -34° Fahrenheit.
* All lights shall be checked to confirm they are in working order.
* All functions of this unit, including all ancillary, allied and optional equipment shall be checked and in working order prior to delivery to NDOT.

**SPECIFICATION CONFIRMATION:** Factory confirmation of specifications ordered required ASAP after order is placed.

**TRAINING:** The successful bidder shall be requested to provide a qualified factory authorized service representative to provide four (4) hours mechanical and four (4) hours operator training at the following end users location in Reno, Carson City and Las Vegas for an estimated 5 to 50 employees.

**WELDING:**

* All welds shall be continuous welds on all seams. Skip welds shall not be acceptable.
* All welds shall be free of slag inclusions and under cut. Fillet weld sizes shall be equivalent to the thickness of the least of the jointed plates.
* All material installed shall be new and free of rust.
* All metal shall be thoroughly cleaned, acid etched, primed, and painted at a minimum of 5 mil thickness
* Shall be free of all cracks, dents and defects due to metal fatigue or physical damage.
* All welding shall be done by human and or machine and shall meet or exceed the American Welding Society Standards. (Certificates available upon request).
* All welds shall be done using the same welding consumables as the material being welded (no mild steel on stainless steel).

***NOTE: Any exceptions to specifications must be noted on a separate document and uploaded into NevadaEPro with your proposal.***

**OPTIONS:** Vendor is requested to provide pricing for the following options:

An in-cab control that allows the operator to change the outward $\_\_\_\_\_\_\_\_\_\_\_\_

position of the right-hand side broom, up to 10” beyond its standard

sweeping position.

High capacity hopper with a volumetric capacity of not less than 5.2 $\_\_\_\_\_\_\_\_\_\_\_\_

cubic yards. Useable capacity shall be not less than 4.0 cubic yards. To

include hopper inspection door.

LED Head lights $ \_\_\_\_\_\_\_\_\_\_\_