

FSA Cooperative Purchasing Program



FSA25-VEF19.0: Fire & Rescue Vehicles, Boats & Equipment Final Award Report

Bid Award

Contract: FSA25-VEF19.0, Fire & Rescue Vehicles, Boats, and Equipment

Group: Wildland Fire Apparatus

Item: 319, Warrior Brush Trucks, Wildland Fire Brush Truck, N/A

Description: Refer FSA Base Specifications PDF document.

Model Upgrade/Downgrade:

Zone	Rank	Vendor	Price	Lead Time	Build File
Nationwide	Primary	Warrior Brush Trucks	\$178,759.00		Build



413 ABC Road, Lake Wales, FL 33859

FSA25-VEF19.0 Base Specifications

Fire & Rescue Vehicles, Boats, & Equipment Wildland Fire Apparatus 4x4

Submitted To:

Florida Sheriffs Association

Attn: Cooperative Purchasing Coordinator
2617 Mahan Drive
Tallahassee, FL 32308

CHASSIS SPECIFICATIONS:

CHASSIS MAKE: Ford F550XL, 4x4, Dual Rear Wheels

MODEL: Standard (Regular, Cab, XL Value Package

YEAR: New, Current Production Model Year

WHEELBASE: 145"

CAB TO AXLE: 60"

GVWR: 19,500 LBS

ENGINE: Diesel Engine, 6.7L Power Stroke Turbo

TRANSMISSION: Ten (10) speed automatic, with overdrive and exterior back up alarm

TRANSFER CASE: Electronic shift-on-the-fly

SUSPENSION: Extra heavy service suspension package

REAR AXLE: Limited slip differential; 4.88 rear axle ratio

TOW/TRAILERING: Front & rear tow hooks bolted to the frame

RUNNING BOARDS: Left & right slip resistant running boards under chassis cab doors

PAINT:

Cab Color: OEM Ford Single Tone Paint Finish, Factory Warranty

Cab Secondary Color: N/A

Bumper Color: Grey

Wheel Color: Polished Aluminum

Body Color: Polished Aluminum

Cab Steps: Black

REAR MUD FLAPS:

The chassis shall be supplied with mud flaps unless otherwise specified. The mud flaps shall be installed behind the rear wheels.

HAVIS CONSOLE AND SWITCH PANEL:

A Havis electrical console and enclosure shall be located between the driver's and passenger's seats. It shall house the siren, switches, and auxiliary equipment.

REAR RECEIVER:

The rear of the chassis shall be equipped with one (1) square steel tube receiver assembly for high or low angle rescue, trailer use, and winch applications. It shall be the same size as a Class III trailer hitch and shall be attached to the chassis frame assembly. The receiver shall be rated at approximately 10,000LB.

The rear receiver assembly shall be equipped with two (2) heavy duty rear tow loops, one (1) each side.

FIRE PUMP:

CET Model SM-PFP-20HPHND-MR shall be installed.

FIRE PUMP SPECIFICATIONS:**Performance**

The pump/engine shall be capable of meeting the NFPA 1906 Performance rating of 50 GPM @ 150 PSI. Typical pump performance from 5-foot draft at sea level shall be: 70 GPM @ 150 PSI, 150 GPM @ 100 PSI and 240 GPM @ 25 PSI.

CET Model SM-PFP-20HPHND-MR performance ratings are as follows: 180 GPM @100 PSI-125 GPM @ 150 PSI-240 GPM @ 50 PSI

Priming

The pump shall be equipped with an exhaust venturi primer of brass and stainless-steel construction. The primer shall be capable of priming at 20 feet lift. The primer to pump line shall be equipped with an automatic check valve for priming from an open body of water and a manual shut -off for pumping from a pressurized water source.

Engine

The engine shall be a 4-cycle gasoline Honda GX630 V-Twin, overhead valve, air cooled design. Engine rating shall be 20 BHP. A 12-volt electric system shall be provided with electric starter and a 17-amp alternator. Engine shall be equipped with a residential muffler with USDA approved spark arrestor.

PUMP CONTROL PANEL:

An engine and pump control panel shall be installed on the pump panel. The following shall be on the pump panel:

- 2.5" discharge pressure gauge
- start/stop control
- throttle control
- low oil pressure warning light
- a light for panel illumination

The pump control panel shall be installed at the passenger's side rear corner of the body attached to the pump.

ELECTRIC START WIRING TO CHASSIS:

The 12-volt positive and negative cables shall be provided from the chassis battery to the fire pump area, wired through the master disconnect solenoid system. The cables shall have a circuit breaker installed at the chassis battery.

AUXILIARY FIRE PUMP MOUNTING PROVISIONS:

The auxiliary fire pump shall be installed at the passenger's side rear of the body. The sub-structure shall have welded in mounting sub-plates between the structural members.

PUMP ENGINE FUEL TANK:

A remote fuel tank shall be installed for the auxiliary fire pump assembly at the rear of the apparatus.

The fuel tank shall be mounted to the deck. The fuel tank shall have capacity of at least six (6) gallons. There shall be a fuel hose with plug in connections furnished between the fuel tank and carburetor assembly for the auxiliary pump.

PUMP ENGINE OIL DRAIN:

The pump engine shall have an oil drain line installed and shall allow for easy oil draining. The drain line shall go through the deck and have a cap installed on the end.

VALVES:

All valves used in the plumbing installation shall be stainless steel quarter turn full flow type. The plumbing installation shall include quarter turn ball valves with local "on-valve" handle control. Valves shall be labeled as to function.

HOSE THREADS:

The hose threads shall be National Hose Standard (NH) on all base threads on the apparatus intakes and discharges, unless otherwise specified.

EXHAUST SYSTEM:

The auxiliary fire pump and engine assembly shall have a muffler and vertical exhaust pipe. The exhaust pipe shall be directed upward and away from the pump operator. A rain cap will be installed on the vertical exhaust outlet.

MUFFLER AND EXHAUST PRIMER:

The pump shall be equipped with an exhaust venture primer of brass and stainless-steel construction. The primer shall be capable of 20 inches of mercury vacuum. The primer to pump line shall be equipped with an automatic check valve for priming from an open body of water and a manual shut-off for pumping from a pressurized water source.

FIRE PUMP MASTER DRAIN:

The fire pump shall have a master drain at the bottom of the water pump housing.

2-1/2" GATED INTAKE – REAR:

One (1) 2-1/2" gated suction intake shall be installed on rear area to supply the fire pump from an external water supply. The valve shall be controlled with a direct quarter-turn ball valve control handle and shall have 2-1/2" NH female thread with plug.

TANK TO PUMP LINE INSTALLATION:

The 2.5" tank to pump line shall be installed with stainless steel plumbing to the water tank. The valve shall be controlled with a manually operated handle directly on the valve.

WATER TANK FILL AND COOLING LINE:

One (1) 1" fire pump to water tank refill and bypass cooler line shall be provided. The pump to tank valve shall be a 1" full flow quarter turn ball valve with local control handle. A 1" flex hose shall be installed to the water tank.

HOSE REEL:

One (1) Hannay aluminum hose reel (SBEF 30-23-24 RT) shall be installed. The reel shall have leak proof ball bearing swing joint, adjustable friction brake, electric 12-volt rewind and manual crank rewind provisions.

The reel shall be mounted on the driver's side rear corner of the flatbed body.

HOSE REEL DISCHARGE:

One (1) 1" discharge shall be piped from the fire pump to each hose reel with flexible high-pressure hose. The quarter turn ball valve shall be on manifold.

NOZZLE MOUNT:

Each 1" flexible hose discharge shall have a nozzle bracket installed to hold the nozzle in place.

HOSE REEL HOSE:

150'-feet of 1" hose shall be installed on the hose reel. The hose shall be equipped with NH Threaded couplings and have a 300 PSI working pressure.

HOSE REEL ROLLER:

The hose reel shall be provided with a Hannay center mounted stainless steel roller assembly.

WATER TANK SPECIFICATIONS:

The water tank shall have a capacity of 300 gallons.

WATER TANK SIGHT GAUGE:

The water tank shall be equipped with translucent water level sight gauge in the rear wall of the tank.

VENT AND OVERFLOW:

The fill tower shall incorporate a vent and overflow system shall be designed into the water tank. The system shall include a 3" diameter pipe that functions both as an air vent while emptying the tank and as an overflow when filling the tank.

FLAT-BED BODY – ALUMINUM:

The body will be a custom fabricated severe service flatbed type constructed of aluminum. The body shall be 116" long by 96" wide, designed for a 60" cab to axle (chassis) dimension. The body shall be specifically designed and engineered for off-road wildland firefighting.

MAIN FRAME

The body shall have 2" x 6" structural aluminum rectangle main frame rails. The body frame rails shall be isolated from the truck frame by .75" x 3.5" Poly isolators.

SUB-FRAME

The cross-members shall be 2" x 4" structural aluminum channel with cross-members on 16" centers.

MOUNTING

The body shall be spring mounted to the chassis frame rails at front and single bolted to the rear of the frame to allow for spring movement in the front. There shall be brackets installed at the middle of the body frame to prevent side to side movement.

HEADACHE RACK

The front of the body shall have a 2" X 4" rectangle aluminum headache rack. The rack shall extend the full width of the body and be attached to the front body corners. The assembly shall extend above the chassis cab and have mounting platform for installation of the light bar and two work lights. Wiring for the lights will be placed inside the tubing for protection.

FUEL FILLER

The fuel filler tube and cap shall be installed at the driver's side, rear of the body.

DEF FILLER

The DEF filler tube and cap shall be installed at the driver's side front of the body.

FENDER PANELS

The lower portion of the flat-bed body shall have fender panels over and aft of the rear wheel panel area. The panels shall be constructed of aluminum. The wheel well openings will be cut out to conform to the wheels.

REAR BODY PANEL

A vertical body panel shall be installed at the rear of the body constructed of .125" smooth aluminum. The panel shall house the running lights, taillights, and back-up lights.

DIAMOND PLATE FINISH BODY AND COMPARTMENTS:

Each diamond plated compartment shall have 22 cubic feet of storage space.

The exterior surface of all body skins and compartments shall all be polished diamond plate aluminum finish.

DRIVERS SIDE UPPER BODY COMPARTMENT:

A body equipment storage compartment shall be installed on the flatbed surface, driver's side of the apparatus. The exterior dimensions shall be approximately 60" wide, 36" high, and 18" deep. The compartment shall be constructed of .125" aluminum on all exterior surfaces. Dri-Dek shall be installed on the floor.

PASSENGERS SIDE UPPER BODY COMPARTMENT:

A body equipment storage compartment shall be installed on the flatbed surface, passenger's side of the apparatus. The exterior dimensions shall be approximately 60" wide, 36" high, and 18" deep. The compartment shall be constructed of .125" aluminum on all exterior surfaces. Dri-Dek shall be installed on the floor.

INTERIOR COMPARTMENT VENTILATION LOUVERS:

The interiors of the upper body compartments shall have louvered ventilation units.

COMPARTMENT LIGHTING. STRIP LIGHTS:

Each upper body compartment shall be equipped with a white LED strip light. Lights will be on an OEM switch in the apparatus cab.

12 VOLT ELECTRICAL SPECIFICATIONS:

The low voltage electrical system on the apparatus including all panels, electrical components, switches and relays, wiring harnesses and other electrical components. The apparatus manufacturer shall conform to the latest Federal DOT standards, current automotive electrical system standards and the applicable requirements of the NFPA.

Wiring between cab and body shall be split using connectors or enclosed in a terminal junction panel allowing body removal with minimal impact on the apparatus electrical system. Connections shall be crimp-type with heat shrink tubing with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather resistant connectors shall be provided throughout the system.

Electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. When required, automatic reset breakers and relays shall be housed in the main body junction panel.

Low voltage overcurrent protective devices shall be provided for the electrical circuits. The devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. Overcurrent protection devices shall be automatic reset type suitable for electrical equipment and meet SAE standards. All electrical equipment, switches, relays, terminals, and connectors shall have a direct current rating of 125 percent of maximum current for which the circuit is protected. Electro-magnetic interference suppression shall be provided in the system as required in applicable SAE standards.

ELECTRICAL HARNESS AND WIRING:

All wiring shall be hidden, enclosed, or protected under the body in protective material, or within the apparatus body components. In addition, split loom conduits shall be installed and enclosed, suitably secured and protected against heat and physical damage.

DOT IDENTIFICATION LIGHTS:

All LED identification lights shall be installed on the vehicle as required by applicable highway regulations.

LICENSE PLATE MOUNTING:

An LED license plate light shall be installed on the rear vertical wall of the body.

BRAKE, TURN, TAIL, BACKUP LIGHTS:

Brake, turn, tail and backup LED lights shall be installed on the rear of the body and shall be DOT compliant.

GROUND LIGHTS, CAB, 2 DOOR LED STRIPS:

Two (2) LED ground strip lights shall be installed under the cab step area in compliance with NFPA standards, one (1) on each side of the apparatus, wired to the chassis running lights.

SCENE LIGHTS:

LED scene lights shall be installed on each side of the headache rack below the lightbar. There will also be an LED work light installed on the rear of the vehicle to illuminate the pump area of the apparatus. The LED scene lights shall incorporate clear LEDs with a clear optic polycarbonate lens for maximum illumination.

BACK-UP CAMERA SYSTEM:

One (1) Rear View Systems camera system shall be furnished utilizing a camera which provides a wide

field of view and picture quality. A sealed camera enclosure shall be utilized along with electronic connections. The color monitor shall be installed in cab.

One (1) camera shall cover the rear of the apparatus, which will activate during back-up mode and during normal operations if needed.

BACK-UP ALARM:

One (1) back up alarm shall be installed.

ELECTRONIC SIREN:

Whelen Model HHS4206 heavy duty 100/200-watt, six (6) function siren shall be installed in the center console.

SIREN SPEAKER:

One (1) Whelen Model SA315P Projector Series siren speaker shall be provided with bracket. The 100-watt siren speaker shall be designed in a black nylon composite housing with 123 decibel rating. Location shall be: Behind the front grille.

MOUNTING OF LIGHTBAR:

The lightbar shall be mounted on the headache rack shelf.

LIGHTBAR:

A Whelen Legacy GB DUO+ low profile NFPA lightbar shall be installed. The 54" lightbar shall be designed to meet the minimum clearing requirements for Zone A Upper

NFPA WARNING LIGHTS:

ZONE A -- LOWER FRONT WARNING LIGHTS

Two (2) Whelen ION T Series Model TLIR warning lights with black flanges shall be installed on the front forward facing area of the front grill.

ZONE BAND D -- INTERSECTION LIGHTS

Two (2) Whelen ION T Series Model TLIR warning lights with black flanges shall be installed on the front fenders as far forward as possible.

ZONE BAND D -- SIDE WARNING LIGHTS

Two (2) Whelen ION T Series Model TLIR warning lights with black flanges shall be installed on each side of the rear body area.

ZONE C -- REAR WARNING LIGHTS

Two (2) Whelen ION T Series Model TLIR warning lights with black flanges shall be installed on the rear of body.

REAR CHEVRON STRIPING:

There shall be alternating chevron striping installed on the rear vertical body panel. The chevron striping shall consist of 6" diamond grade in the following colors:

The first color shall be red diamond grade.

The second color shall be lime yellow diamond grade.

FINAL ASSEMBLY AND APPARATUS FINISHING PREP SPECIFICATIONS:

The apparatus shall be assembled in a high quality and controlled environment. Upon completion, the apparatus shall be ready for final inspection and road testing as required herein.

WARNING LABEL -- SEAT BELT USAGE:

A warning label for use of seat belts shall be installed in the cab by the chassis manufacturer.

STATED WARRANTY:

One (1) year bumper to bumper mechanical, excluding normal wear and tear items

Ford OEM manufacturer's warranty

Ford OEM paint warranty on cab & chassis

Lifetime warranty on booster tank

Five (5) year warranty on fire pump

Ten (10) year pro-rated warranty on all painted surfaces

Five (5) year corrosion warranty on bed & body

Five (5) years on chassis engine

Five (5) years on chassis transmission

MANUALS

Two (2) copies of operation and service manuals will be included with each Warrior Brush Truck and Type VI Engine.

MSO

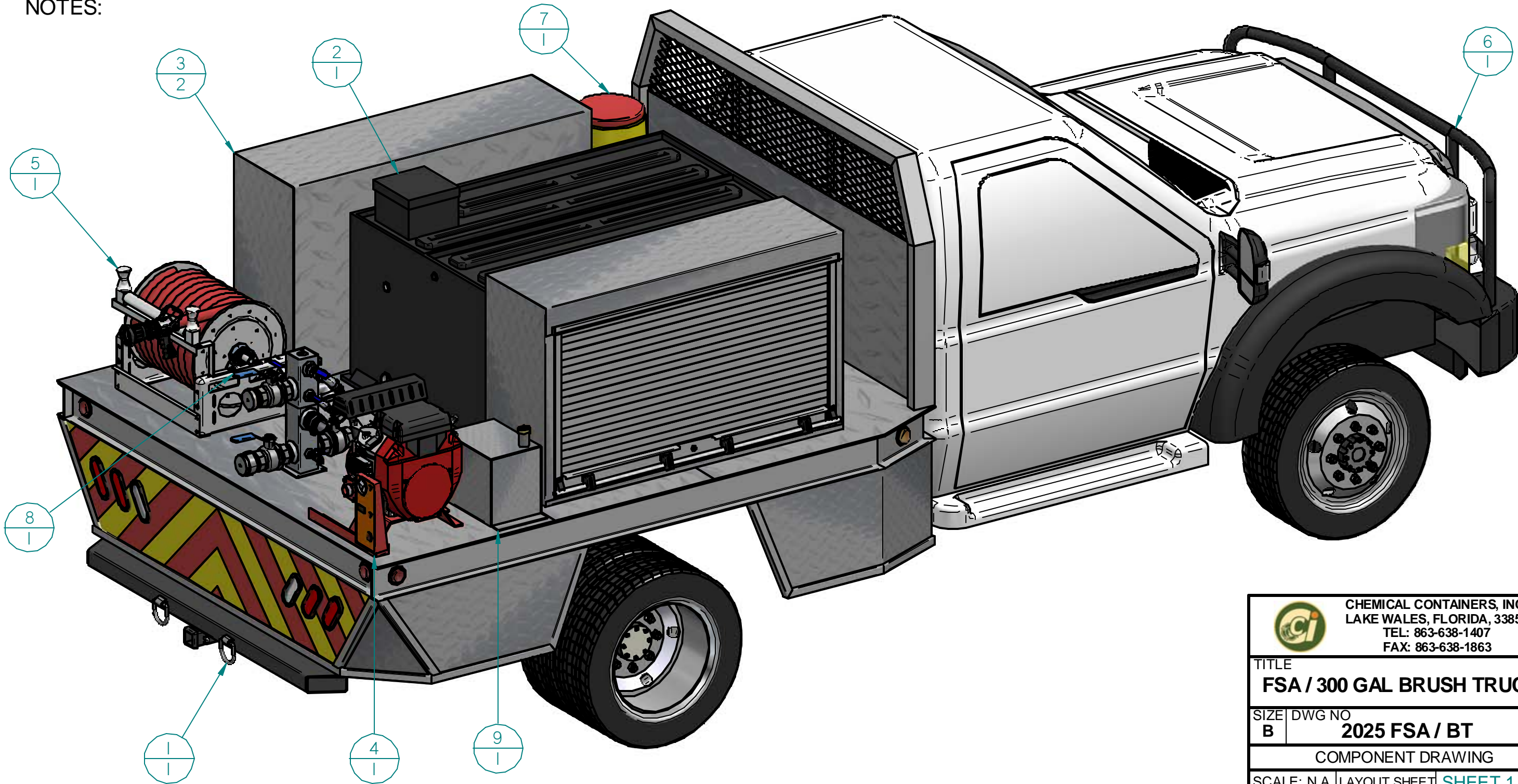
Second stage manufacturers state of origin documents and decals will be included with each completed apparatus and will include the weight of the vehicle as measured by certified scales.

Item Number	Document Number	Quantity
1	FSA / BT DECK	1
2	NCBT-300GPLYTNK	1
3	60LX36HXI8D/IRUD-DP	2

Item Number	Document Number	Quantity
4	SM-PFP-20HPHND-MR	1
5	FF3630-33-34 HRE	1
6	F550XI45WB	1

Item Number	Document Number	Quantity
7	BT/WTRCLRSTND/CLR.asm	1
8	CET-20HP-MR-MANI'D	1
9	BT / 7G / FT-DP	1

NOTES:



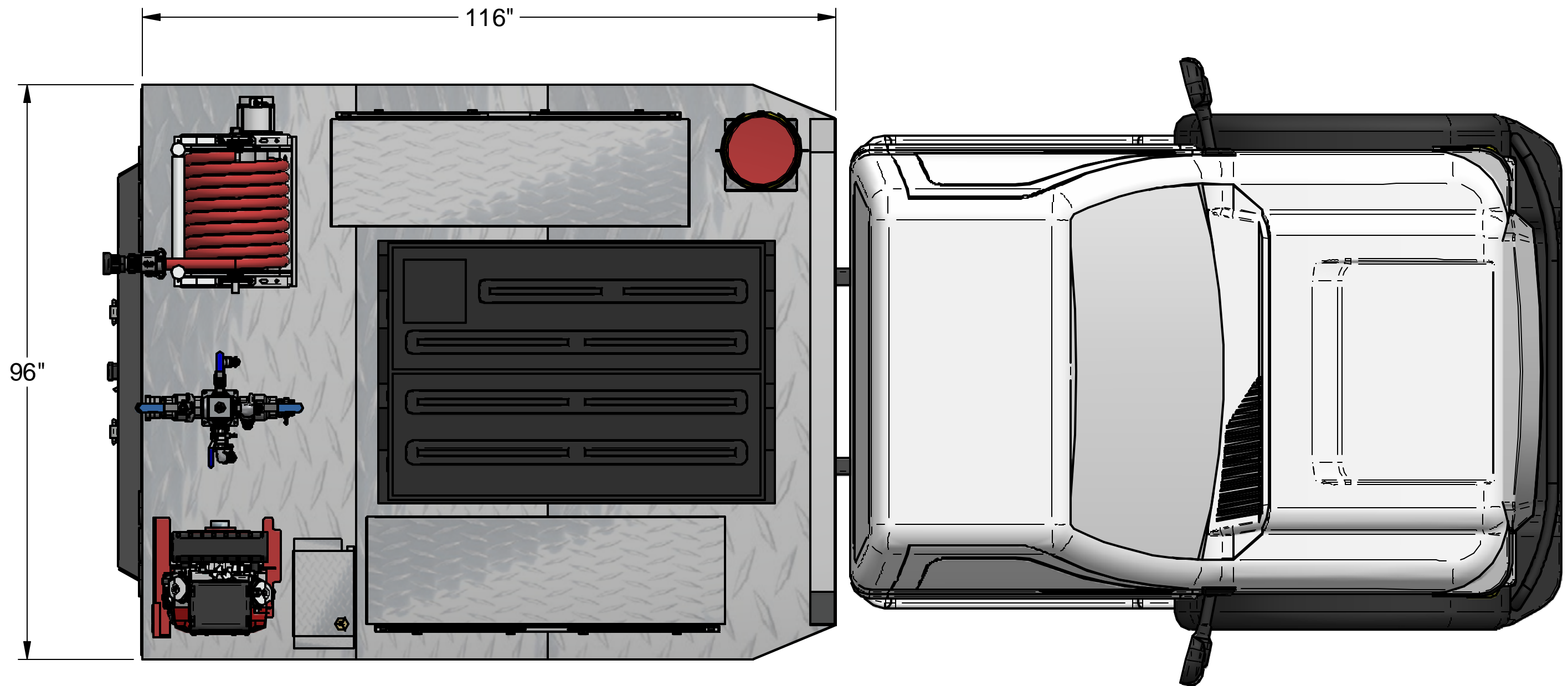
CHEMICAL CONTAINERS, INC.
LAKE WALES, FLORIDA, 33859
TEL: 863-638-1407
FAX: 863-638-1863

TITLE
FSA / 300 GAL BRUSH TRUCK

SIZE B	DWG NO 2025 FSA / BT	REV 00
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COMPONENT DRAWING

SCALE: N.A.	LAYOUT SHEET	SHEET 1 / 3
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FSA / 300 GAL BRUSH TRUCK

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B

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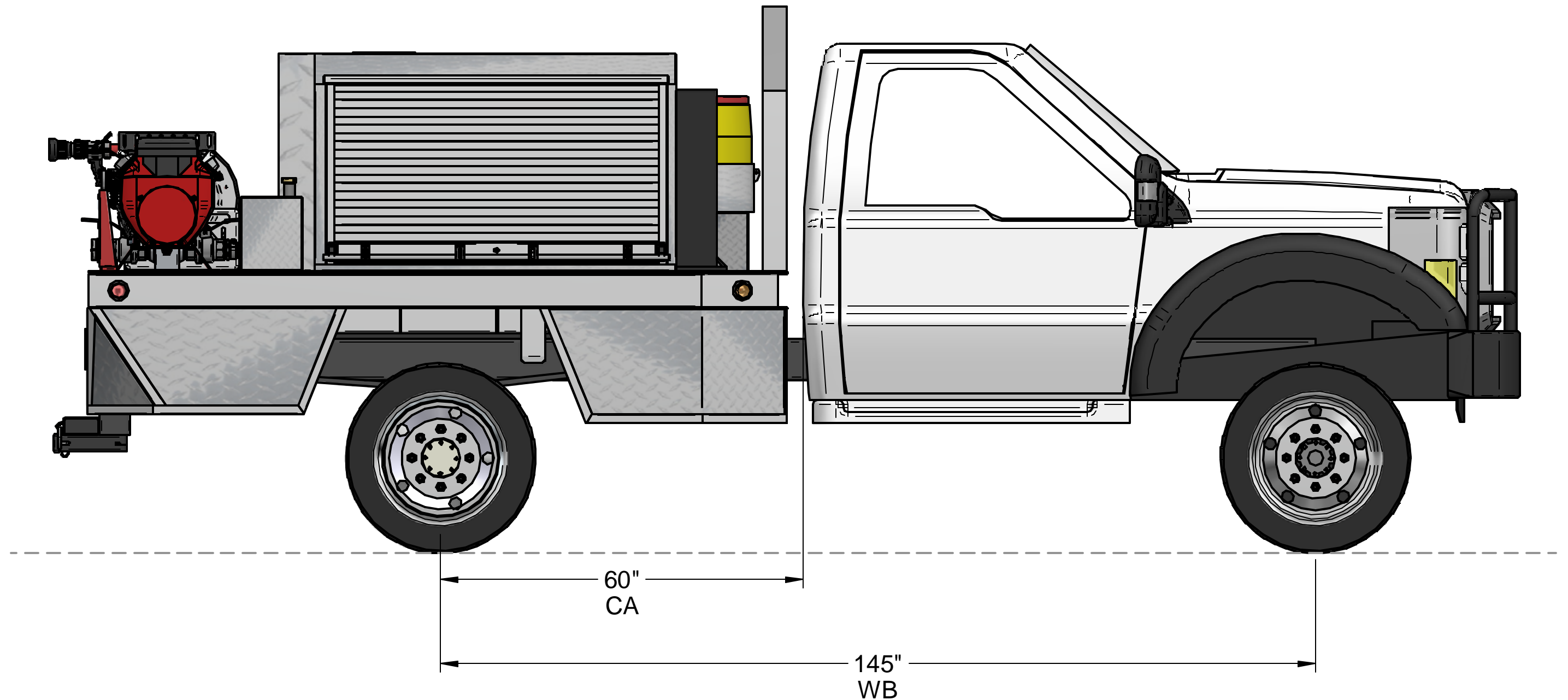
REV
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COMPONENT DRAWING

SCALE: N.A.

LAYOUT SHEET

SHEET 2 / 3



CHEMICAL CONTAINERS, INC.
LAKE WALES, FLORIDA, 33859
TEL: 863-638-1407
FAX: 863-638-1863

TITLE: 2025 FSA / BT

SCALE: N.A.

CNC AND BEND
SHEET

SHEET 3 / 3

DRAWN BY: gchavis

27/Dec/24

REVISION: 00

DATE RECIEVED: _____

APPROVED: _____

REJECTED: _____

CCI USE ONLY

FSA25-VEF19.0 Wildland Fire Apparatus**Bid Price Sheet**

Part Number	Description	Price
FSA25-VEF19.0 BT	Florida Sheriffs Association Brush Truck	\$178,759.00
Options/Upgrades		
CCIF550DSC24W	F550 Super Cab, 168" Wheelbase	\$4,321.00
CCIF550DSCC25W	F550 Super Crew Cab, 179" Wheelbase	\$5,522.00
BT-FS23A59501	Fabs Four HD Front Bumper w/ Grill Guard	\$4,035.00
BT-97740	Warn 16.5Ti 16,500LB Winch	\$3,495.00
BT-692741	2.5" SST Chassis Lift & Level	\$1,490.00
FM SS	2.5" Lift, Super Single, 305/70R19.5 Tires	\$10,945.00
BT-STAGE2 KIT	3.5" Lift, Super Single, 335/80R20 Tires	\$27,594.00
BT-STSTFT	6" Lift, Super Single, 335/80R20 Tires	\$25,305.00
BTPT96X116	Walk Through Aluminum Bed	\$8,930.00
TY100108	WaterAx BB4 Pump & Control Panel	\$7,180.00
HFP545-4251-30-0	Hale 25HP Kubota Pump w/ Dual panels	\$21,893.00
HFP34621103	Akron 3462 Forestry Monitor w/ Joy Stick	\$14,690.00
BTDSWP	Dual Front Ground Sweeps	\$4,990.00
FP4171NH	Scott 4171 Foam System w/ In Tank Foam	\$1,800.00
T9976ESC	In Cab Poly Storage/Ems Cabinet	\$3,646.00
DAR905	Kussmaul Charger w/ Auto Eject	\$1,412.00
HS-160R	Hypersight Thermal Camera w/ 7" Monitor	\$4,485.00
DAR317	Tank Vision Dual Led Water Level Monitor	\$1,833.00
APBT-UDSTRG	Center Bed Storage w/ Slide Out Tray	\$5,406.00
SVH6867	Additional Hand/Grab Rails	\$285.00
DC101953-1	Additional Lighted Folding Steps	\$485.00