SPECIFICATION #1 - OFF-ROAD ALL TERRAIN VEHICLES - 4 WHEEL DRIVE

2019 Honda Four Trax Foreman 500 (TRX500FA5K) 2019 Polaris Sportsman 570 EFI (A19SEA57B1) 2019 Yamaha Kodiac 450 (YFM45KDXK)

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

a. 2 – programmed keys and fobs, if available

2. ENGINE:

- a. Manufacture's minimum 1 cylinder 4 stroke fuel injected gas engine.
- b. Liquid cooled
- c. Key/electric start
- d. 20 HP minimum

3. TRANSMISSION:

- a. Manufacture's standard automatic transmission
- 4. BATTERY:
 - a. 300 CCA
- 5. BRAKES:
 - a. Front disc / rear drum

6. SAFETY ITEMS:

- a. Safety shut off switch
- b. Hi/lo headlights

7. WHEELS/TIRES:

a. Standard all terrain tires

- a. Standard headlights
- b. Standard taillights
- c. Power plug
- d. Standard front and rear racks
- e. Standard floorboards
- f. Minimum tow capacity 800 lbs

SPECIFICATION #2 - OFF-ROAD UTILITY VEHICLES - 4 WHEEL DRIVE

2019 Bobcat 3400 UTV

2019 Club Car Carry All 1500 G 2019 Cub Cadet 550

2019 Honda Pioneer 700 (SXS700M2K) 2019

John Deere Gator HPX615E

2019 Kawasaki Mule 4010 4X4

2019 Kubota Diesel (RTVX900)

2019 Mahindra Retriever UTV 750B

2019 Polaris Ranger 570 EFI (R19RMA57B1)

2019 Yamaha Viking (YXM70VDXK)

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

a. 2 – programmed keys and fobs, if available

2. ENGINE

a. Manufacturer's gas or diesel engine, air cooled, overhead valve, keyed electronic ignition, 20 HP minimum.

3. TRANSMISSION

a. Manufacturer's standard automatic transmission

4. BATTERY

a. 300 cca

5. CHASSIS

- a. Standard headlights
- b. Standard taillights
- c. Power plug
- d. Front brakes: hydraulic discs
- e. Rear brakes: hydraulic drum
- f. Steering rack and pinion
- g. Standard front bumper

6. TIRES AND WHEELS

a. Front and rear all terrain tires, must match drive train

SPECIFICATION #3 - LOW SPEED VEHICLE

2019 CitiCar 4PR 2019 Columbia Summit Utility Truck (SU5-LN)

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

a. 2 – programmed keys and fobs, if available

2. CLASSIFICATION

- a. These vehicles are primarily used to transport people and limited cargo in the State of Florida on typical federal, state, county and city highways and roads that are posted for 35 mph or less and shall be designed to operate under typical environmental conditions.
- b. Vehicles must conform to Federal Motor Vehicle Safety Standards, State of Florida Vehicle Safety Laws, regulations, specifications, standards and requirements in effect as of the date of manufacture.

3. ENGINE

- a. 5.5HP 4 kw Electric Motor
- b. 48 Volt Lead Acid Batteries (8 Batteries x 6v)
- c. Trojan T105 Batteries
- d. Curtis Sepex 1268 Controller
- e. 110V Eagle On Board Charger
- f. 50 Miles per Charge
- g. Max Forward Speed 25mph
- h. Digital Speedometer and Dashboard

4. DIMENSIONS (APPROXIMATE)

- a. Length: 96"
- b. Height: 76"
- c. Width: 48"
- d. Wheel Base 66.9"
- e. Ground Clearance 5"

5. BODY

- a. Plastic body and fiberglass roof
- b. DOT Windshield with Wiper
- c. Wood Grain Steering Wheel, Dashboard and Back Rests

6. COMFORT ITEMS

- a. 4 Person Seating with Flip Rear Seat for Cargo
- b. Cup Holders

7. CHASSIS/STEERING/SUSPENSION

- a. Front and Rear Plate Spring + Cylinder Hydraulic Shock Absorber Suspension
- b. 10 Foot Turning Radius
- c. Steel Frame Type Chassis d. 500lbs GVW Capacity
- e. Front Independent Suspension
- f. Rack & Pinion Steering

8. TIRES AND WHEELS:

- a. 205/50-10 Tires
- b. 10" Aluminum Rims

9. BRAKES

- a. 4 Wheel Hydraulic
- b. Hand Brake

10. SAFETY ITEMS

- a. 100% Electric with Zero Emmissions
 b. 12V Headlights and Indicators
 c. Voltmeter
 d. Turn Signals
 e. Side and Rear View Mirrors
 f. Reverse Alarm
 g. Non-Slip Flooring
 h. Neutral Switch When Vehicle is Standing Still
 i. Horn

11. PERFORMANCE:

- a. 45 mile range b. 19 MPH minimum

SPECIFICATION #4 - ELECTRIC UTILITY VEHICLE

2019 Carryall 500 (104030201)

2019 Polaris Ranger EV (R19RMAE4G8)

2019 Xtreme Green Transport Pro

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

- a. 2 programmed keys and fobs, if available
- b. Full-size spare tire, if available

2. DIMENSIONS (APPROXIMATE)

- a. Length: 115" b. Height: 51"
- c. Width: 56"
- d. Wheel Base 79"
- e. Curb Weight 1500 lbs. f. GVW 2900 lbs.

3. POWER:

- a. 7 HP Electric Motor
- b. 8-6 Volt Heavy Duty Batteries
- c. 48 Volt

4. TRANSMISSION/AXLE:

- a. Enclosed internally lubricated differential/transaxle
- b. 2 Wheel Drive

5. CHASSIS/STEERING/SUSPENSION

- a. 1250 lbs. towing capacity
- b. 2900 lbs. GVW
- c. Frame Type Chassis
- d. Suspension matched for GVW of vehicle

6. TIRES AND WHEELS:

- a. Off/on road type tires
- b. Wheels rated for GVW of vehicle
- c. Tires to be traction type rated for GVW of vehicle

7. PERFORMANCE:

- a. 45 mile range
- b. 19 MPH minimum

8. BRAKES:

- a. Manual parking brake
- b. Disc or drum type
- c. 2 or 4 wheel breaks

9. BODY:

- a. Rear mounted hitch for towing 2"
- b. Pick-up type box with sides and tailgate
- c. 2 passenger seating

SPECIFICATION #5 - 1 TON CAB & CHASSIS (DUAL REAR WHEEL) - 4X2

2019 Chevrolet Silverado 3500 HD (CC36003)

2019 Ford F-350 (F3G)

2019 GMC Sierra 3500 HD (TC36003)

2019 Ram 3500 (DD3L63)

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys

2. ENGINE:

a. Manufacturer's standard gas engine, alternator, battery and cooling package.

3. TRANSMISSION/AXLES:

- a. Manufacturer's standard automatic transmission.
- b. Manufacturer's standard drive axle ratio for engine and transmission combination.

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.

5. COMFORT ITEMS:

- a. Manufacturer's standard tinted glass all around.b. Manufacturer's standard AM/FM stereo.
- c. Heavy duty rubber floor covering instead of carpet.
- d. Manufacturer's standard production seats. Purchaser will select color at time of order.

6. SAFETY ITEMS:

- a. Dual mount outside mirrors to provide field of vision for vehicles to 96" wide.
- b. Interior dome lights with left and right door activated switches.
- c. Manufacturer's standard air bags.

7. BRAKES:

a. Four wheel anti-lock brake ABS system.

8. TIRES AND WHEELS:

a. Manufacturer's standard tires and wheels.

- a. Manufacturer's standard bumper.
- b. Manufacturer's standard fuel tank.
- c. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.

SPECIFICATION #6 - 1 TON CAB & CHASSIS (DUAL REAR WHEEL) - 4X4

2019 Chevrolet Silverado 3500 HD (CK36003)

2019 Ford F-350 (F3H)

2019 GMC Sierra 3500 HD (TK36003)

2019 Ram 3500 (DD8L63)

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys
- d. Limited slip differential

2. ENGINE:

a. Manufacturer's standard gas engine, alternator, battery and cooling package.

3. TRANSMISSION/AXLES:

- a. Manufacturer's standard automatic transmission.
- b. Manufacturer's standard drive axle ratio for engine and transmission combination.
- c. Manufacturer's standard transfer case

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.

5. COMFORT ITEMS:

- a. Manufacturer's standard tinted glass all around.
- b. Manufacturer's standard AM/FM stereo.
- c. Heavy duty rubber floor covering instead of carpet.
- d. Manufacturer's standard production seats. Purchaser will select color at time of order.

6. SAFETY ITEMS:

- a. Dual mount outside mirrors to provide field of vision for vehicles to 96" wide.
- b. Interior dome lights with left and right door activated switches.
- c. Manufacturer's standard air bags.

7. BRAKES:

a. Four wheel anti-lock brake ABS system.

8. TIRES AND WHEELS:

a. Manufacturer's standard tires and wheels.

- a. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.
- b. Manufacturer's standard fuel tank.
- c. Manufacturer's standard bumper.

SPECIFICATION #7 - TILT CAB & CHASSIS (DUAL REAR WHEEL) - 4X2

2019 Chevrolet 4500HD Diesel LCF (CT31003)

2019 Isuzu FTR Chassis

2019 Isuzu NF154

2019 Kenworth K270

2019 Mitsubishi FE130

2019 Peterbilt 220

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys

2. ENGINE:

- a. Manufacturer's standard diesel engine
- b. Heavy duty alternator
- c. Maintenance free heavy duty battery
- d. Manufacturer's heavy duty engine cooling

3. TRANSMISSION/AXLES:

- a. Manufacturer's standard automatic transmission.
- b. Manufacturer's standard drive axle ratio for engine and transmission combination.

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.

5. COMFORT ITEMS:

- a. Manufacturer's standard tinted glass all around.
- b. Manufacturer's standard AM/FM stereo.
- c. Heavy duty rubber floor covering instead of carpet.
- d. Manufacturer's standard production seats. Purchaser will select color at time of order.
- e. Manufacturer Power Windows and Door Locks
- f. Manufacturer Keyless Entry

6. SAFETY ITEMS:

- a. Dual mount outside mirrors to provide field of vision for vehicles to 96" wide.
- b. Interior dome lights with left and right door activated switches.
- c. Manufacturer's standard air bags, if available.
- d. Manufacturer's standard convex mirrors.

7. BRAKES:

a. Four wheel anti-lock brake ABS system.

8. TIRES AND WHEELS:

- a. BSW steel belted radials, 215/85R16E minimum.
- b. 16 x 6.0 steel 6-hole disc wheels.
- c. Tire capacity: front 2,400 lbs. (ea.); rear 2,200 lbs. (ea.).

- a. Minimum 12,000 lb. GVWR.
- b. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.
- c. Manufacturer's standard fuel tank.
- d. Manufacturer's standard bumper.
- e. Cab with 45-degree mechanical tilt with torsion assist.
- f. Tilt cab & chassis only.

SPECIFICATION #8 - 15,000 LB GVWR CAB & CHASSIS (DUAL REAR WHEEL) - 4X2

2019 Chevrolet Silverado 4500HD WT (CC56403 /C7R)

2019 Ford F-450 (F4G)

2019 International CV

2019 Ram 4500 (DP4L63)

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys

2. ENGINE:

- a. Manufacturer's standard diesel engine.
- b. Maintenance free heavy duty battery
- c. Manufacturer's heavy duty engine cooling
- d. Heavy duty alternator

3. TRANSMISSION/AXLES:

- a. Manufacturer's standard automatic transmission
- b. Manufacturer's standard drive axle ratio for engine and transmission combination.

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.
- c. Heavy duty front and rear shocks.

5. COMFORT ITEMS:

- a. Manufacturer's standard tinted glass all around.
- b. Manufacturer's standard AM/FM stereo.
- c. Heavy duty rubber floor covering instead of carpet.
- d. Vinyl seating with head rests to accommodate 3 passengers. Purchaser will select color at time of order.
- e. Factory Power Windows and Door Locks
- f. Keyless Entry

6. SAFETY ITEMS:

- a. Dual mount outside mirrors must provide a field of vision for vehicles to 96" width, and for towing.
- b. Interior dome lights with left and right door activated switches.
- c. Air bags for driver and right front passenger, if available.
- d. Back Up Camera, if required by federal standards

7. BRAKES:

a. Rear anti-lock brakes, minimum.

8. TIRES AND WHEELS:

a. BSW all season tread radial, 19.5" heavy duty truck tires.

- a. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.
- b. Manufacturer's standard front bumper, bright or painted.
- c. Fuel tank capacity, 25 gallons minimum.
- d. Cab to center of rear axle 60" approximately.
- e. Minimum 15,000 lbs. GVWR.
- f. Cab & chassis only.

SPECIFICATION #9 - 15,000 LB GVWR CAB & CHASSIS (DUAL REAR WHEEL) - 4X4

2019 Chevrolet Silverado 4500HD WT (CK56403/C7R)

2019 Ford F-450 (F4H)

2019 International CV

2019 Ram 4500 (DP9L63)

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys
- d. Limited slip differential, if available

2. ENGINE:

- a. Manufacturer's standard diesel engine.
- b. Maintenance free heavy duty battery
- c. Manufacturer's heavy duty engine cooling.
- d. Heavy duty alternator

3. TRANSMISSION/AXLES:

- a. Manufacturer's standard automatic transmission
- b. Manufacturer's standard drive axle ratio for engine and transmission combination.
- c. Manufacturer's standard transfer case

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.
- c. Heavy duty front and rear shocks.

5. COMFORT ITEMS:

- a. Manufacturer's standard tinted glass all around.
- b. Manufacturer's standard AM/FM stereo.
- c. Heavy duty rubber floor covering instead of carpet.
- d. Vinyl seating with head rests to accommodate 3 passengers. Purchaser will select color at time of order.

6. SAFETY ITEMS:

- a. Dual mount outside mirrors must provide a field of vision for vehicles to 96" width, and for towing.
- b. Interior dome lights with left and right door activated switches.
- c. Air bags for driver and right front passenger, if available.

7. BRAKES:

a. Rear anti-lock brakes, minimum.

8. TIRES AND WHEELS:

a. BSW all season tread radial, 19.5" heavy duty truck tires.

- a. Fuel tank capacity, 25 gallons minimum.
- b. Manufacturer's standard front bumper, bright or painted.
- c. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.
- d. Cab & chassis only.
- e. Minimum 15,000 lbs. GVWR.
- f. Cab to center of rear axle 60" approximately.

SPECIFICATION #10 - 17,500 LB GVWR CAB & CHASSIS (DUAL REAR WHEEL) - 4X2

2019 Chevrolet Silverado 5500HD WT (CC56403/GZX)

2019 Ford F-550 (F5G)

2019 Freightliner M2

2019 International CV

2019 Kenworth T170

2019 Peterbilt 325

2019 Ram 5500 (DP5L63)

THE ITEMS BELOW WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys

2. ENGINE:

- a. Diesel engine, minimum 190 HP
- b. Maintenance free heavy duty battery
- c. Manufacturer's heavy duty engine cooling.
- d. Heavy duty alternator

3. TRANSMISSION/AXLES:

- a. Manufacturer's standard automatic 4-speed transmission with overdrive and manufacturer's heavy duty cooling.
- b. Manufacturer's standard drive axle ratio for engine and transmission combination.

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.
- c. Heavy duty front and rear shocks.

5. COMFORT ITEMS:

- a. Manufacturer's standard tinted glass all around.
- b. Manufacturer's standard AM/FM stereo.
- c. Heavy duty rubber floor covering instead of carpet.
- d. Vinyl seating with head rests to accommodate 3 passengers. Purchaser will select color at time of order.

6. SAFETY ITEMS:

- a. Dual mount outside mirrors must provide a field of vision for vehicles to 96" width, and for towing.
- b. Interior dome lights with left and right door activated switches.
- c. Air bags for driver and right front passenger, if available.

7. BRAKES:

- a. Rear anti-lock brakes, minimum.
- b. Power brakes, front brakes disc type, rear brakes may be drum or disc.

8. TIRES AND WHEELS:

a. BSW all season tread radial, 19.5" heavy duty truck tires.

- a. Cab to center of rear axle 60" approximately.
- b. Minimum 17,501 lbs. GVWR.
- c. Cab & chassis only.
- d. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.
- e. Manufacturer's standard front bumper, bright or painted.
- f. Fuel tank capacity, 24 gallons minimum.

SPECIFICATION #11 - 17,500 LB GVWR CAB & CHASSIS (DUAL REAR WHEEL) - 4X4

2019 Chevrolet Silverado 5500HD WT (CK56403/GZX)

2019 Ford F-550 (F5H)

2019 Freightliner M2

2019 International CV

2019 Ram 5500 (DP0L63)

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED. PLEASE REFER TO THE EMERGENCY VEHICLE LIGHTING AND SIRENS SECTION WITHIN THIS CONTRACT FOR DESCRIPTIONS, SPECIFICATIONS AND AWARDED VENDOR PRICING.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 kevs
- d. Limited slip differential, If available

2. ENGINE:

- a. Diesel engine, minimum 190 HP
- b. Maintenance free heavy duty battery
- c. Manufacturer's heavy duty engine cooling.
- d. Heavy duty alternator

3. TRANSMISSION/AXLES:

- a. Manufacturer's standard automatic transmission
- b. Manufacturer's standard drive axle ratio for engine and transmission combination.
- c. Manufacturer's standard transfer case

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.
- c. Heavy duty front and rear shocks.

5. COMFORT ITEMS:

- a. Manufacturer's standard tinted glass all around.
- b. Manufacturer's standard AM/FM stereo.
- c. Heavy duty rubber floor covering instead of carpet.
- d. Vinyl seating with head rests to accommodate 3 passengers. Purchaser will select color at time of order.

6. SAFETY ITEMS:

- a. Dual mount outside mirrors must provide a field of vision for vehicles to 96" width, and for towing.
- b. Interior dome lights with left and right door activated switches.
- c. Air bags for driver and right front passenger, if available.

7. BRAKES:

a. Rear anti-lock brakes, minimum.

8. TIRES AND WHEELS:

a. BSW all season tread radial, 19.5" heavy duty truck tires.

- a. Cab to center of rear axle 60" approximately.b. Minimum 17,501 lbs. GVWR.
- c. Cab & chassis only.
- d. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.
- e. Manufacturer's standard front bumper, bright or painted.
- f. Fuel tank capacity, 25 gallons minimum.

SPECIFICATION #12 - 25,500 LB GVWR CAB & CHASSIS (DUAL REAR WHEEL) - 4X2

2019 Hino 268A 2019 Ford F-650 (F6D) 2019 Freightliner M2 2019 International MV 2019 Kenworth T270 2019 Peterbilt 330

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air Conditioning
- b. Standard full-size spare tire, if available
- c. 2 Keys

2. ENGINE:

a. Diesel engine, minimum 200 HP

3. TRANSMISSION/AXLES:

- a. All axles, synthetic lube.
- b. Manufacturers standard automatic transmission or approved equivalent (with PTO provision).
- c. 17,500 lb. rear axle

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.

5. COMFORT ITEMS:

- a. Air conditioning, factory installed.
- b. Manufacturer's standard tinted glass all around.
- c. Manufacturer's standard AM/FM stereo.
- d. Heavy duty rubber floor covering instead of carpet.
- e. Manufacturer's standard production seats. Purchaser will select color at time of order.
- f. Keys: two (2) per vehicle, single key locking system, (each vehicle keyed differently).

6. SAFETY ITEMS:

- a. Dual mount outside mirrors must provide a field of vision for vehicles to 102" width, and for towing.
- b. Convex mirrors mounted below standard mirrors.
- c. Interior dome lights with left and right door activated switches.

7. BRAKES:

- a. Factory air brakes
- b. Anti-lock brake system

8. TIRES AND WHEELS:

- a. BSW 11R22.5 (14 PR) or approved equivalent, front and rear.
- b. Oil bath hubs, with synthetic lube.

- a. Minimum 25,500 lbs. GVWR.
- b. Cab & chassis only.
- c. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.
- d. Manufacturer's standard front bumper, bright or painted.
- e. Factory front tow hooks.
- f. Fuel tank capacity, 45 gallons minimum.
- g. Cab to center of rear axle 84" approximately.

SPECIFICATION #13 - 30,000 LB GVWR CAB & CHASSIS (DUAL REAR WHEEL) - 4X2

2019 Hino 338

2019 Ford F-750 (F7D)

2019 Freightliner M2

2019 International MV

2019 Kenworth T370

2019 Mack MHD

2019 Peterbilt 337

2019 Western Star 4700

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys

2. ENGINE:

a. Diesel engine, minimum 200 HP

3. TRANSMISSION/AXLES:

- a. Manufacturers standard automatic transmission (with PTO provision) minimum, or approved equivalent.
- b. 21,000 lb. rear
- c. All axles, synthetic lube.

4. PERFORMANCE ITEMS:

- a. Manufacturer's standard power steering.
- b. Manufacturer's standard gauges.

5. COMFORT ITEMS:

- a. Air conditioning, factory installed.
- b. Manufacturer's standard tinted glass all around.
- c. Manufacturer's standard AM/FM stereo.
- d. Heavy duty rubber floor covering instead of carpet.
- e. Manufacturer's standard production seats. Purchaser will select color at time of order. f. Keys: two (2) per vehicle, single key locking system, (each vehicle keyed differently).

6. SAFETY ITEMS:

- a. Dual mount outside mirrors must provide a field of vision for vehicles to 102" width, and for towing.
- b. Convex mirrors mounted below standard mirrors.
- c. Interior dome lights with left and right door activated switches.

7. BRAKES:

- a. Factory air brakes
- b. Anti-lock brake system

8. TIRES AND WHEELS:

- a. BSW 11R22.5 (14 PR) or approved equivalent, front and rear.
- b. Oil bath hubs, with synthetic lube.

- a. Minimum 30,000 lbs. GVWR.
- b. Cab & chassis only.
- c. Manufacturer's standard colors, factory painted. Colors to be determined by individual agencies.
- d. Manufacturer's standard front bumper, bright or painted.
- e. Factory front tow hooks.
- f. Fuel tank capacity, 45 gallons minimum.
- g. Cab to center of rear axle 84" approximately.

SPECIFICATION #14 - 52,000 LB GVWR CAB & CHASSIS - 4X6 TANDEM AXLE TRACTOR (ONLY)

2019 Freightliner M2-112 2019 International HX 2019 International HV 2019 Kenworth T880 2019 Mack AN or G Series 2019 Peterbilt 567 2019 Volvo V Series

2019 Western Star 4800

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys

2. ENGINE:

a. 350 HP 6 cylinder diesel engine, manufacturer's 11L minimum

3. TRANSMISSION & CLUTCH:

- a. The following or approved equivalents are acceptable:
 - 1. Fuller 14210B 10 Speed Manual with OD

4. ENGINE EQUIPMENT:

- a. Alternator 12 volt 100A
- b. Premium engine hoses
- c. Injection pump electronic engine control
- d. Radiator aluminum core
- e. Air restriction monitor intake mounted

5. CAB:

- a. Cab welded steel galvanized or aluminum shell with rust preventative coating.
- b. Floor covering black rubber mats
- c. Seating driver air suspension mid back, passenger fixed mid back.
- d. Steering wheel 18" two spoke
- e. Standard air conditioning & heating

6. FRAME:

- a. Frame steel construction matched to $\ensuremath{\mathrm{GVW}}$ and mounted body of truck
- b. Wheelbase 187'
- c. Load platform 161" 56" AF
- d. Front bumper painted steel
- e. Fuel tank 70 gallon, minimum f. Air dryer Bendix AD9 heated, or approved equivalent.
- g. 5th wheel stationary with left hand release.

7. SAFETY:

- a. Horn single air trumpet
- b. Mirrors West Coast for 102" trailer widths to include 7.5" convex mounted to lower mirror bracket.

 c. Brakes "S" cam type 16.5" x 5" Q + front and 16.5" x 7" Q + rear with anti-lock with automatic stability control, or approved
- d. Slack adjusters Haldex automatic front and rear.
- e. Daytime running lights.
- f. Backup alarm
- g. Electrical plug holder includes glad hand storage.h. Tractor package to include valves, trailer lines & frame access
- i. Automatic traction and stability control

8. FRONT AXLE:

- a. Axle 12,000 lb.
- a. ARE = 12,000 lb.
 b. Front wheels steel 10 hole hub piloted
 c. Front tires 11R22.5 Goodyear G397LHS, steer or approved equivalent.
 d. Front hubs Ferrous, or approved equivalent.
 e. Oil type with synthetic lube

9. REAR AXLE:

- a. Minimum 40,000 lb. rated axle and suspension
 b. Rear wheels steel 10 hole hub piloted
 c. Rear tires 11R22.5 Goodyear G124 unisteel traction or approved equivalent.
 d. Hubs Ferrous, or approved equivalent.
 e. Power divider with warning light and buzzer (includes in cab control)

10. ELECTRICAL:

- a. Circuit protection fuses except headlamp and wiper circuits which utilize circuit breakers.
 b. Hand throttle electronic hand throttle operated through cruise control when in PTO mode only.
 c. Engine protection engine shut down system monitoring high water temp, low oil pressure, high exhaust temp, high transmission

SPECIFICATION #15 - 52,000 LB GVWR CAB & CHASSIS - 4X6 TANDEM AXLE TRUCK

2019 Freightliner M2-112

2019 International HX

2019 International HV

2019 Kenworth T880

2019 Mack AN or G Series

2019 Mack MHD

2019 Peterbilt 567

2019 Volvo V Series

2019 Western Star 4700

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys

2. ENGINE:

a. 350 HP 6 cylinder diesel engine, manufacturer's 11L minimum

3. TRANSMISISON & CLUTCH:

- a. The following or approved equivalents are acceptable: $1. \; \text{Fuller} \; 14210B \; 10 \; \text{Speed Manual with OD}$

4. ENGINE EQUIPMENT:

- a. Alternator 12 volt 100A
- b. Premium engine hoses
- c. Injection pump electronic engine control
- d. Radiator aluminum core
- e. Air restriction monitor intake mounted

5. CAB:

- a. Cab welded steel galvanized or aluminum shell with rust preventative coating.
- b. Floor covering black rubber mats
- c. Seating driver air suspension mid back, passenger fixed mid back.
- d. Steering wheel 18" two spoke
- e. Standard air conditioning and heating

6. FRAME:

- a. Frame steel construction matched to GVW and mounted body of truck.
- b. Wheelbase 187"
- c. Front bumper painted steel
- d. Fuel tank 70 gallon, minimum e. Air dryer Bendix AD9 heated, or approved equivalent.

7. SAFETY:

- a. Horn single air trumpet
- b. Mirrors West Coast to include 7.5" convex mounted to lower mirror bracket.
 c. Brakes "S" cam type 16.5" x 5" Q + front and 16.5" x 7" Q + rear with anti-lock without automatic traction control, or approved
- d. Slack adjusters Haldex automatic front and rear.
- e. Daytime running lights.
- f. Backup alarm

8. FRONT AXLE:

- a. Front axle 12,000 lb.
- b. Front wheels steel 10 hole hub piloted c. Front tires 11R22.5 Goodyear G397LHS, steer or approved equivalent.
- d. Front hubs Ferrous, or approved equivalent.
- e. Oil type with synthetic lube

9. REAR AXLE:

- a. Rear axle 40,000 lb.
 b. Rear wheels steel 10 hole hub piloted
 c. Rear tires 11R22.5 Goodyear G124 unisteel traction or approved equivalent.
 d. Hubs Ferrous, or approved equivalent.
 e. Power divider with warning light and buzzer (includes in cab control)

10. ELECTRICAL:

- a. Circuit protection fuses except headlamp and wiper circuits which utilize circuit breakers.
 b. Hand throttle electronic hand throttle operated through cruise control when in PTO mode only.
 c. Engine protection engine shut down system monitoring high water temp, low oil pressure, high exhaust temp, high transmission

SPECIFICATION #16 - 60,000 LB GVWR CAB & CHASSIS - 4X6 TANDEM AXLE REFUSE TRUCK (ONLY)

2019 Autocar ACX64 2019 Crane Carrier LET2 2019 Mack TE Series 2019 Peterbilt 520

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. FSA BASE VEHICLE REQUIREMENTS

- a. Air conditioning
- b. Standard full-size spare tire, if available
- c. 2 keys

2. ENGINE:

a. 300 HP 6 cylinder diesel engine, manufacturer's 11L minimum

3. TRANSMISISON:

a. Allison 4500 RDS automatic transmission

4. ENGINE EQUIPMENT:

- a. Alternator 12 volt 100A
- b. Premium engine hoses
- c. Injection pump electronic engine control
- d. Radiator aluminum core, or approved equivalent
- e. Air restriction monitor intake mounted

5. CAB:

- a. Cab welded steel galvanized or aluminum shell with rust preventative coating.
- b. Low cab, forward mounted, tilt type.
- c. Floor covering black rubber mats
- d. Seating driver air suspension mid back, passenger fixed mid back.
- e. Steering wheel 18" two spoke
- f. Standard air conditioning and heating

6. FRAME:

- a. Frame steel construction matched to GVW and mounted body of truck.
- b. Wheelbase 209"
- c. Front bumper painted steel
- d. Fuel tank 70 gallon, minimum
 e. Air dryer Bendix AD9 heated, or approved equivalent.

7. SAFETY:

- a. Horn single air trumpet
- b. Mirrors West Coast to include 7.5" convex mounted to lower mirror bracket.
 c. Brakes "S" cam type 16.5" x 5" Q + front and 16.5" x 7" Q + rear with anti-lock without automatic traction control, or approved equivalent.
- d. Slack adjusters Haldex automatic front and rear.
- e. Daytime running lights.
- f. Backup alarm

8. FRONT AXLE:

- a. Front axle -20,000 lb.
- b. Front wheels steel 10 hole hub piloted
- c. Front tires 315/8OR/22.5 Goodyear G289
- d. Front hubs iron, or approved equivalent. e. Oil type with synthetic lube

9. REAR AXLE:

a. Rear axle - 40,000 lb.

- b. Rear wheels steel 10 hole hub piloted
 c. Rear tires 11R22.5 Goodyear G124 unisteel traction or approved equivalent.
 d. Hubs iron, or approved equivalent.
 e. Power divider with warning light and buzzer (includes in cab control)

10. ELECTRICAL:

- a. Circuit protection fuses except headlamp and wiper circuits which utilize circuit breakers.
 b. Hand throttle electronic hand throttle operated through cruise control when in PTO mode only.
 c. Engine protection engine shut down system monitoring high water temp, low oil pressure, high exhaust temp, high transmission

SPECIFICATION #17 - THE ROOK, TACTICAL VEHICLE

2019 Caterpillar 297 with Rook Option

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. VEHICLE PLATFORM:

- a. CAT Multi-terrain loaderb. 84 HP Diesel Engine
- c. 2 Speed powertrain

- c. 2 Speed powertrain
 d. Operating weight 13,000 lbs.
 e. Fuel Tank 26 gallons
 f. Hydraulic Quick Coupler
 g. Enclosed ROPS cab with air conditioner and heater
 h. Dual level suspension undercarriage with self level.
- i. Advanced machine information and control system

2. CAB ARMORED PROTECTION

- a. Bullet proof glass
- b. NIJ Level IV armor cab reinforcement fabrication

3. ARMORED DEPLOYMENT PLATFORM

- a. Integrated video system
- b. Breaching ram
 c. Vehicle extraction tool
- d. Grapple claw

SPECIFICATION #18 - COMPACT LOAD AND PACK 9.5 CU YD SELF LOADING REFUSE **TRUCK**

2019 Broyhill 74 DLX

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE

a. 70 HP Diesel Engine, EPA compliant

2. TRAMISSION

- a. Hydrostatic Transmission
- b. Four wheel drive

3. ENGINE EQUIPMENT

- a. Alternator 12 volt 100 amp
- b. Premium engine hoses
- c. Injection pump electronic engine control
- d. Radiator aluminum core, or approved equivalent

4. CAB

- a. Cab welded steel galvanized or aluminum shell with rust preventative coating.
- b. Low cab, forward mounted
- c. Floor covering- manufacturer or standard
- d. Seating driver air suspension.
 e. Standard air conditioning and heating
- f. Tilt Wheel

5. FRAME

- a. Operating weight 7,300 lbs
- b. Frame steel construction
- c. GVWR 12,900 lbs
- d. Wheelbase 108'
- e. Front bumper painted steel f. Fuel tank 30 gallon, minimum
- g. Articulated joint

6. SAFETY

- a. Horn Electric
- b. Mirrors West Coast to include 7.5" convex mounted to lower mirror bracket.
- c. Brakes Hydro-static, fail safe parking and emergency brake
- d. Backup alarm
- e. Work lights
- f. Strobe lights
- g. DOT compliant lighting h. Windshield wipers 2 speed
- i. Three Camera system view both sides and rear

7. HYDRAULIC SYSTEM

- a. Variable displacement hydraulic pumps
- b. Hydraulic tank 20 gal capacity
- c. Hydraulic talik 20 gal capacity c. Hydraulic filters 5 and 10 micron d. Load arm, grip 55-90 gallon containers e. Load arm, 500 LB lift capacity
- f. Load arm, 5 second cycle time

8. AXLES

- a. Dana Corp 70 series front and rear, or approved equivalent. b. Front and Rear tires 36×13.50 -15 NHS high floatation tires.
- c. Hubs iron, or approved equivalent.

9. ELECTRICAL

- a. Circuit protection fuses except headlamp and wiper circuits which utilize circuit breakers.
 b. Hand throttle
 c. Engine protection engine monitoring system for high water temp, low oil pressure, high exhaust temp, high transmission temp.

SPECIFICATION #19 - 15 FT. FLEX WING ROTARY MOWER - PTO DRIVEN

2019 Woods BW15.50 2019 Alamo Eagle 15 2019 Bush Hog 3815 2019 John Deere HX15 2019 Landpride Batwing (RC5615) 2019 Rhino 4150 2019 Schulte FX-1800

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. DECK:

- a. Mower shall be rotary, flex wing style.
- b. 10 gauge steel minimum
- c. Replaceable full length skid shoes
- d. Shall be easy clean style

2. BLADE CARRIER & BLADES:

- a. 7 gauge steel minimum
- b. 1 inch thick cross bar weldment
- c. "Stump Jumper" pan design
- d. 2 free swinging updraft cutting blades 1/2 inch thick, heat treated alloy steel minimum
- e. Blades shall overlap a minimum of six inches for uniform cut.
- f. Blade spindles shall be 1 1/4 inch diameter minimum.

3. WHEELS/TIRES:

a. 6 replaceable puncture resistant foam filled airplane tailwheels.

4. POWER DISTRIBUTION:

- a. Main driveline shall be CAT 5
- b. Slip clutch protection shall be featured.c. Gears shall be straight bevel with tapered roller bearings.
- d. A power divider shall have a rating of 190 HP minimum.
- e. Center and wing gearboxes shall have a minimum rating of 190 HP.

5. GENERAL FEATURES:

- a. Mower shall attach to the rear of the tractor using a self level-lift hitch.
- b. Front and rear chain deflectors.
- c. Tounge shall have a jack stand.

SPECIFICATION #20 - ZERO TURN RADIUS COMMERCIAL GRADE MOWER

2019 Cub Cadet Pro Z 560 L/S KW

2019 Bad Boy Outlaw 6100

2019 Dixie Chopper 2560 BR

2019 Grasshopper Model 225

2019 Gravely Proturn 260

2019 John Deere Z930M

2019 Kubota Z725KH-2-60

2019 Scag Cheetah SCZ61V-27FX

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

- a. 25 horsepower gas engine
- b. 7 gallon fuel tank
- c. Positive feed oil system with spin on filter.
- d. Heavy duty air cleaner
- e. Electric start

2. DRIVE TRAIN/AXLES:

- a. Hydraulic gear pumps
- b. High torque wheel motors
- c. Spin on hydraulic filters

3. DECK:

- a. 60" heavy duty mower deck
- b. 3 blade spindles
- c. Belt driven
- d. Manual deck lift
- e. 1" to 5" cutting height
- f. Deck engagement electric clutch

4. WHEELS:

- a. Front wheels 13x6-6 ribbed, minimum b. Rear wheels 24x11.5-12 turf

5. COMFORT & CONVENIENCE:

- a. High back full suspension seat
- b. Adjustable steering/motion control levers
- c. Flip up hood
- d. Easy access operator controls
- e. ROPS bar

6. APPROXIMATE MACHINE DIMENSIONS:

- a. Length 82"
- b. Height 72" with ROPS c. Width 63" without chute

7. CONDITIONS:

- a. In addition to equipment specified, mower will be equipped with all standard equipment as specified by the manufacturer for this model and shall comply with all EPA emission standards and all motor vehicle standards as established by the U.S. Department of Transportation regarding the manufacture of motor vehicles.
- b. The successful bidder shall be responsible for delivering the unit properly serviced, clean and in first class operating condition. Pre-delivery service at a minimum shall include the following:
 - 1. Complete lubrication
 - 2. Check all fluid levels
- c. Adjustment of engine to proper operating condition
- d. Inflate tires to proper pressure
- e. Proper operation of all accessories.

SPECIFICATION #21 - REMOTE CONTROLLED BRUSH MOWER

2019 Alamo Ridgerunner

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. APPROXIMATE DIMENSIONS

- a. Length- 57"
- b. Width- 59"
- c. Height- 33"
- d. Weight- 990 lbs

2. ENGINE

- a. 24 hp. 2 cylinder gas
- b. Pressurized oiling system
- c. Electric start w/ 16v, 16 a alternator
- d. 5 gal fuel capacity

3. TRACK DRIVE SYSTEM

- a. Two 48v electric motors
- b. Infinitely variable gear reduction transmissions
- c. Multi lug type tracks
- d. Neoprene rollers

4. MOWER DECK

- a. Twin spindle deck
- b. 10 gage mower deck
- c. Blade bar 2x22" with 4 free swinging blades
- d. Electric clutch assembly w/ integral safety brake e. Mowing heigth range 2 to 7 "

5. REMOTE CONTROL

- a. Remote control to control mower functions: travel speed, cutting height, hours, radio signal strength. state of charge of remote control battery, and mower on/off
- b. Remote control working range 328 ft., max range 984 ft.
- c. Auto stop feature for loss of radio signal
- d. Rechargeable lithium ion batteries

6. SAFETY

- a. One touch emergency shut off switch
- b. Warning beacon

SPECIFICATION #22 - LARGE TOOL CARRIER WITH OPTIONAL MOWER **ATTACHMENTS**

2019 Mantis 4142 2019 MowerMax Industrial Tool Carrier 2019 Multihog Range MX

This equipment bid is for the tool carrier only, without attachments. Buyer must select the attachments desired from the option list to complete the equipment, which will affect the final price.

1. ENGINE

- a. 99.9 HP Tier III Turbo Diesel
- b. Heavy duty radiator with high flow fan with reversing, clean out valve
- c. Canister style air cleaner with pre-cleaner
- d. Electric start with engine pre-heat
- e. Full engine gauge package
- f. 30 gallon fuel tank

2. POWER TRAIN

- a. Hydrostatic, variable displacement piston transmission pump in a closed loop system
- b. Two, heavy-duty, 4 wheel drive, steerable axles with parking and service brake c. 3 steering modes 4 wheel round, front wheel and 4 wheel crab
- d. High torque, two-speed, hydraulic piston drive motor for front axle and drive shaft for rear axle
- e. Joystick for speed and directional (forward/reverse) control
- f. GVW (without attachments): Approximately 9000lbs

a. Work Mode - Variable 0-5 MPHTravel Mode - Variable 0-20 MPH

4. WHEELS

a. Standard -15-19.5 Industrial tiresOptional - 38x18.00-20 Lug tires

5. COMFORT, CONVENIENCE & SAFETY

- a. Full air ride, suspension seat with lumbar support and integrated operator-presence safety switch
- b. Certified ROPS Canopy with AC, Heat, AM/FM radio with Bluetootth
- c. Tilt steering column with horn
- d. Seat belt with safety switch
- e. Turn Signals and brake lights
- f. Flashing safety lights as well as DOT reflector tape
- g. Engine gauge package

6. ATTACHMENT OPTIONS

- a. Front lift arms with universal skid steer mounting plate for 10+ skid steer attachments:
 - 1. Broom/sweeper
 - 2. 90 inch rotary mower
 - 3. 88 in flail mower
 - 4. Dozier blade
 - 5. Stump grinder
 - 6. Pallet forks
 - Cold planer
 - 8. Big roll sod installer
 - 9. Landscape rake
 - Rotary tîller
- b. Right side rotary mower
- c. Right side flail mower
- d. Right side boom/reach mower
- e. 15 ft belly mower

7. CONDITIONS

- a. The successful bidder shall be responsible for delivering the unit properly services, clean and in first class operating condition. Pre-delivery service at a minimum shall include:
 - 1. Proper operation of all accessories

- Check all fluids
 Complete lubrication
 Adjustment of engine to proper operation condition
 Inflate tires to proper operating pressure
- b. In addition to equipment specified, mower will be equipping with all standard equipment as specified by the manufacturer for this model and shall comply with all EPA emission standards and all motor vehicle standards as established by the US Department of Transportation regarding the manufacturer of motor vehicles.

SPECIFICATION #23 - TELESCOPIC TOOL CARRIER

2019 Bobcat Versa Handler V723 Telehandler 2019 Caterpillar TH357D 2019 JLG G5-18A

Incomplete equipment. Unit bid is for the prime mover only, without attachments. Buyer should select attachments needed from the option list to complete the machine. Examples of attachments available are: Bucket; grapple and/or forks. This will affect the total price.

1. APPROXIMATE DIMENSIONS

- a. Length: 196 in
- b. Width: 90 in
- c. Height, w/cab: 93 in
- d. Wheelbase: 113 in.
- e. Weight: 17,155 lbs.

2. ENGINE

- a. Diesel, Tier 4 100hp
- b. Turbocharged
- c. Heavy duty cooling system

3. POWERTRAIN

- a. Hydrostatic Drive
- b. 2 Travel speeds low speed 3.0 mph, high speed 18 mph
- c. All wheel drive
- d. 3 Steering modes: all wheel, crab, and front wheel
- e. Industrial lug type tires

4. COMFORT, CONVENIENCE AND SAFETY

- a. Certified ROPs cab with a/c, heatb. Suspension seat w/ seat belt
- c. Work lights, safety lights, and warning beacon
- d. Attachment controls in cab
- e. Engine gauge instrumentation

5. <u>HYDRAULIC SYSTEM</u>

- a. Lift capacity 7700 lbs
- b. Max lift 22 feet
- c. Boom breakout force: 8000 lbs

SPECIFICATION #24 - COMPACT CENTER ARTICULATING TRACTOR - AWD

2019 Ventrac 3400 Series 2019 Ventrac 4500 Series

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE

- a. 3400L Briggs & Stratton 20hp Vanguard 385800
- b. 4500K Briggs & Stratton 31hp Vanguard M54

2. TRANSMISSION

a. Manufacturer's standard hydrostatic.

3. PERFORMANCE ITEMS

- a. Manufacturer's standard power steeringb. SDLA controls for complete one-handed control of Speed, Direction, Lift & Auxiliary functions
- c. Weight Transfer transfers weight to front axle for added stability (optional on 3400L & 4500K)

4. SAFETY ITEMS

- a. Automatic PTO shut-off- when weight is removed from seat
- b. Standard seatbelt (optional 4-point harness)
- c. Standard ROPS system
- d. Neutral Assist

5. TIRES AND WHEELS

- a. Manufacturer's standard tires and wheels (optional turf or bar tires)
- b. Optional Dual wheel tires for safe maneuvering on slopes up to 30 degrees (58% grade)

6. ATTACHMENT AND ACCESSORIES

- a. 30+ commercial grade attachments for a variety of applications (sold individually, not factory installed)
- b. Uses Ventrac quick hitch system for quick transition between applications

SPECIFICATION #25 - SMALL AGRICULTURE TYPE TRACTOR (4 WHEEL DRIVE)

2019 Case IH Farmall 35C 2019 John Deere 3039R 2019 Kubota L3901 DT 2019 Mahindra 1640 2019 Massey Ferguson 1739E 2019 New Holland Boomer 35

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Liquid cooled diesel with minimum of 29 PTO hp @ 2200 rpm.

2. TRANSMISSION:

a. Hydrostatic drive or mechanical type transmission.

3. FUEL TANK:

a. Minimum 7 gallon capacity.

4. BRAKES:

a. Oil cooled hydraulic wet disc.

5. POWER TAKE OFF:

a. Speeds RPM - 540

6. HYDRAULIC SYSTEM:

- a. Open center system with standard remotes.
- b. Maximum main pump flow 6.3 gpm

7. 3 POINT HITCH:

- a. Category I
- b. SAE lift capacity @ 24" standard lbs. 1,435

8. TIRES:

- a. Not less than 11.2 x 24 rear
- b. Not less than 5-15 6 ply front

SPECIFICATION #26 - AGRICULTURE TYPE TRACTOR (2 WHEEL DRIVE)

2019 Case IH Farmall 100C 2019 Challenger MT455 2019 John Deere 5100M 2019 Kubota M5-091 2019 Mahindra mForce 105S 2019 Massey Ferguson 4709 2019 New Holland Powerstar 100

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Liquid cooled diesel with minimum of 75 PTO hp @ 2200 rpm.

2. TRANSMISSION:

a. Synchroshuttle type with a minimum of 8 forward and 3 reverse speeds.

3. FUEL TANK:

a. Minimum 23 gallon capacity.

4. BRAKES:

a. Oil cooled hydraulic.

5. POWER TAKE OFF:

a. Speeds RPM - 540/1000

6. HYDRAULIC SYSTEM:

- a. Open center system with standard remotes.
- b. Standard output @ remote gpm 10
- c. Main pump flow 17 gpm

7. POINT HITCH:

- a. Electronic or mechanical 3 point hitch control
- b. Category II
- c. Telescopic stabilizers
- d. SAE lift capacity @ 24" standard lbs. 3,600 e. Lower draft arm link ends extendable

8. TIRES:

- a. Not less than 18.4R 28 R1 radials
- b. Not less than 7.5L 15 6 Ply F2

<u>SPECIFICATION #27 - AGRICULTURE TYPE TRACTOR WITH BOOM MOWER (4 WHEEL DRIVE)</u>

2019 Case IH Maxxum 115 with Motrim Boom Mower

2019 Challenger MT465 with Diamond Boom Mower

2019 John Deere 6120M Alamo Industrial Mower

2019 John Deere 6120M with Tiger Bengal Boom Mower

2019 Kubota M6S-111 with Terrain King KB2300 Boom Mower

2019 Massey Ferguson MF5712SL with Diamond Boom Mower

2019 New Holland TS6.120 with Alamo Boom

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Liquid cooled diesel with minimum of 95 PTO hp @ 2200 rpm.

2. TRANSMISSION:

a. Synchroshuttle type with a minimum of 16 forward and 16 reverse speeds.

3. FUEL TANK:

a. Minimum 38 gallon capacity.

4. BRAKES:

a. Oil cooled hydraulic.

5. POWER TAKE OFF:

a. Speeds RPM - 540/1000

6. HYDRAULIC SYSTEM:

- a. Closed center system with standard remotes.
- b. Maximum pressure psi 2,900
- c. Standard output @ remote 17 gpm
- d. Total of 29 gpm combined flow

7. POINT HITCH:

- a. Category II
- b. Telescopic stabilizers
- c. SAE lift capacity @ 24" standard lbs. 5,000
- d. Lower draft arm link ends extendable

8. <u>TIRES:</u>

- a. Not less than 13.6R24 R1 rear radials
- b. Not less than 18.4R30 6 Ply F2

9. MOUNTED BOOM MOWER:

- a. Minimum 23' boom reach.
- b. Forward and reverse swing break away.
- c. Integral frame.
- d. Separate hydraulic circuit for mower head.
- e. 5' rotary cutter head.
- f. Disc or bar type blade holder.

SPECIFICATION #28 - 4X4 LOADER BACKHOE WITH CANOPY (STANDARD STICK)

2019 Case 580 SN 2019 Caterpillar 416 2019 John Deere 310SL

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

- a. Minimum 87 HP Diesel engine
- b. Dry type, radial seal air cleaner and pre-cleaner unit
- c. Spin on type engine oil filter

2. TRANSMISSION:

a. Four speed power shift or power shuttle transmission

3. OPERATOR ENVIRONMENT:

- a. OSHA approved ROPS canopy shall be integral
- b. Two front and two rear work and driving lights c. Stop and turn signals with flashing hazard lamps
- d. Instrument panel with a complete set of gauges or an electronic monitoring device
- e. Standard horn and audible back-up alarm

4. BRAKES:

- a. Brakes shall be oil immersed, hydraulically actuated, multiple disc on final drive input shaft
- b. Brakes shall be completely enclosed and sealed, fully self-adjusting

5. LOADER (SINGLE TILT CYLINDER):

- a. Loader shall be equipped with a return to dig mechanism
- b. Loader shall have positive down pressure sufficient to lift the tractor front end off level ground c. Loader bucket SAE heaped capacity of minimum 1.3 yards with replaceable bolt on edge

6. BACKHOE:

- a. Fixed length dipper stick digging depth approximately 14'
- b. Reach from swing center, approximately 18'
- c. Dump height, approximately 11'3"
- d. Digging force approximately 8,000 lbs.
- e. Bucket dig force, approximately 11,990 lbs.
- f. 24" general purpose bucket with replaceable teeth

SPECIFICATION #29 - SKID STEER LOADER - 1850 LB OPERATING CAPACITY WHEELED ONLY

2019 Bobcat S570 2019 Case SV185 2019 Caterpillar 236D 2019 John Deere 318G 2019 Kubota SSV65 2019 Takeuchi TS60V 2019 Volvo MC95C

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Minimum 3 cylinder 56 HP Diesel

2. TRANSMISSION:

- b. Forward, reverse, travel speed controlled by two hand levers

3. ENGINE EQUIPMENT:

- a. Spin on type filtersb. Dry type air filter

4. OPERATOR ENVIRONMENT:

- a. OSHA approved ROPS canopy shall be integral
- b. Front and rear work lights, hazard lights
- c. Engine monitoring system or gauges, with audible alarm
- d. Tires 10x16.5 extra wall
- e. Horn and backup alarm

5. BRAKES:

- a. Parking brake
- b. Hydrostatic main braking

6. LOADER:

- a. Front auxillary hydraulics
- b. Foot or hand controls for bucket
- c. Minimum 62" wide construction bucket
- d. Operating capacity 1,800 lbs minimum

SPECIFICATION #30 - SKID STEER LOADER - 2800 LB OPERATING CAPACITY WHEELED ONLY

2019 Bobcat A770 2019 Bobcat S770 2019 Case SV340 2019 Caterpillar 272D 2019 John Deere 330G 2019 Volvo MC 135D

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Minimum 3 cylinder 83 HP Diesel

2. TRANSMISSION:

- a. Hydrostatic drive
- b. Forward, reverse, travel speed controlled by two hand levers

3. ENGINE EQUIPMENT:

- a. Spin on type filters
- b. Dry type air filters

4. OPERATOR ENVIRONMENT:

- a. OSHA approved ROPS canopy shall be integral b. Front and rear work lights, hazard lights
- c. Engine monitoring system or gauges, with audible alarm
- d. Horn and backup alarm
- e. Tires 14x17.5 extra wall

5. BRAKES:

- a. Parking brake
- b. Hydrostatic braking

6. LOADER:

- a. Front auxillary hydraulics
- b. Foot or hand controls for bucket
- c. Minimum 84" wide construction bucket

SPECIFICATION #31 - SKID STEER LOADER - 3100 LB OPERATING CAPACITY TRACKED ONLY

2019 Bobcat T740 2019 Case TR310 2019 Caterpillar 279D 2019 John Deere 331G 2019 Kubota SVL75-2 2019 Takeuchi TL12 2019 Volvo MCT135D

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

- a. Minimum 3 cylinder 74 HP Diesel
- b. Spin on type filters
- c. Dry type air filters

2. TRANSMISSION:

- a. Hydrostatic drive
- b. Forward, reverse, travel speed controlled by two hand levers

3. OPERATOR ENVIRONMENT:

- a. OSHA approved ROPS canopy shall be integral
- b. Front and rear work lights, hazard lights
- c. Engine monitoring system or gauges, with audible alarm
- d. Horn and backup alarm

4. BRAKES:

- a. Parking brake
- b. Hydrostatic braking

5. BUCKET:

- a. Minimum 66" construction bucket
- b. Bolt on, replaceable cutting edge for bucket
- c. Operating capacity 3,100 lbs. minimum

<u>SPECIFICATION #32 - 1.5 CU YD WHEEL LOADER (Z-BAR LINKAGE BUCKET - PARALLEL ARM OPTION)</u>

2019 Case 321F 2019 Caterpillar 908M 2019 Hitachi ZW120 2019 John Deere 324L 2019 Volvo L45H 2019 Takeuchi TW80

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE/CAB:

- a. Diesel engine, six cylinder, four cycle, liquid cooled, minimum 77 HP
- b. Cab with A/C

2. TRANSMISSION:

a. Power shift transmission with torque converter or hydrostatic drive, minimum of four forward and three reverse speeds.

3. DRIVETRAIN:

- a. Four wheel drive.
- b. Manufacturer's standard axle.
- c. Inboard or outboard mounted wet disc braking system.
- d. Inboard or outboardmounted plantetary final drives.
- e. 15.5 25 Bias ply tires mounted on multi piece rims.

4. LOADER:

- a. 1.5 cu. yd. general purpose bucket with bolt on cutting edge.
- b. Bucket position indicator.
- c. Automatic return to dig.
- d. Rear drawbar.
- e. Gauges and indicators: visual hydraulic oil level indicator, electronic monitor display of all fluid levels and temperatures.
- f. Deluxe suspension seat with foam padding and backrest.
- g. Articulated steering, clearance circle 34'.02"
- h. Wheelbase of at least 7'
- i. Minimum operating weight of 12,727 lbs.

5. ELECTRICAL:

- a. 12 or 24 volt electrical system.
- b. Manual battery disconnect switch.
- c. Driving lights, front and rear work lights, stop lights, warning lights and tail lights.

<u>SPECIFICATION #33 - 3.0 CU YD WHEEL LOADER (Z-BAR LINKAGE BUCKET - PARALLEL ARM OPTION)</u>

2019 Case 621G 2019 Caterpillar 926 M 2019 Doosan DL220-5 2019 Doosan DL280-5 2019 Hitachi ZW180 2019 John Deere 524L 2019 Volvo L60H

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE/CAB:

- a. Diesel engine, six cylinder, four cycle, liquid cooled, minimum 140 SAE Net HP
- b. Cab with A/C

2. TRANSMISSION:

a. Power shift transmission with torque converter or hydrostatic drive, minimum of four forward and three reverse speeds.

3. DRIVETRAIN:

- a. Four wheel drive.
- b. Manufacturer's standard axle.
- c. Inboard or outboard mounted wet disc braking system.
- d. Inboard or outboardmounted plantetary final drives.
- e. 20.5 25 Bias ply tires mounted on multi piece rims.

4. LOADER:

- a. 3.0 cu. yd. general purpose bucket with bolt on cutting edge.
- b. Bucket position indicator.
- c. Automatic return to dig.
- d. Rear drawbar.
- e. Gauges and indicators: visual hydraulic oil level indicator, electronic monitor display of all fluid levels and temperatures.
- f. Deluxe suspension seat with foam padding and backrest.
- g. Articulated steering, 40 degrees minimum each direction
- h. Wheelbase of at 9 feet, 4 inches minimum
- i. Minimum operating weight of 26,000 lbs.

5. ELECTRICAL:

- a. 12 or 24 volt electrical system.
- b. Manual battery disconnect switch.
- c. Driving lights, front and rear work lights, stop lights, warning lights and tail lights.

SPECIFICATION #34 - 5.75 CU YD WHEEL LOADER (Z-BAR LINKAGE BUCKET)

2019 Case 1021 G 2019 Caterpillar 972M 2019 Doosan DL450-5 2019 John Deere 744K-2 2019 Hitachi ZW310 2019 Volvo L150H

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE/CAB:

- a. Diesel engine, six cylinder, four cycle, liquid cooled, minimum 280 HP.
- b. Cab with A/C

2. TRANSMISSION:

a. Power shift transmission with torque converter or hydrostatic drive, minimum of four forward and three reverse speeds.

3. DRIVETRAIN:

- a. Four wheel drive.
- b. Manufacturer's standard axle.
- c. Inboard or outboard mounted wet disc braking system.
- d. Inboard or outboardmounted plantetary final drives.
- e. 26.5 –R25 radial tires mounted on multi piece rims.

4. LOADER:

- a. 5.75 cu. yd. general purpose bucket with bolt on cutting edge.
- b. Bucket position indicator.
- c. Automatic return to dig.
- d. Rear drawbar.
- e. Gauges and indicators: visual hydraulic oil level indicator, electronic monitor display of all fluid levels and temperatures.
- f. Deluxe suspension seat with foam padding and backrest.
- g. Articulated steering, 40 degrees minimum each direction.
- h. Wheelbase of 11'4" minimum.
- i. Minimum operating weight of 53,674 lbs.

5. ELECTRICAL:

- a. 24 volt electrical system.
- b. Neutral safety start device.
- c. Manual battery disconnect switch.
- d. Driving lights, front and rear work lights, stop lights, warning lights and tail lights.

SPECIFICATION #35 - MOTORGRADER - SMALL

2019 LBP G-700 2019 Lee Boy 685B 2019 Mauldin MG618 2019 Noram 65E Grader

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. DIMENSIONS (APPROXIMATE)

- a. Length 21'
- b. Width 7'
- c. Height with cab 10'4"
- d. Weight 15,200 lbs.

2. ENGINE:

- a. Diesel, turbocharged 110 HP.
- b. Dual stage air cleaner
- c. 39 gallon fuel tank

3. DRIVE TRAIN

- a. Hydrostatic drive or power shift
- b. 2 speed gear box

4. BRAKES:

a. Fail safe brake system

5. STEERING/ARTICULATION:

- a. 18 degree articulation left or right
- b. Front wheel lean

6. MOLDBOARD/BLADE

- a. 10' Sliding/Tilting moldboard
- b. 10' Blade
- c. Circle side shift
- d. Scarifier center mount, front mount or rear mount acceptable.
- e. Adjustable turn table
- f. Blade float control

7. OPERATORS STATION:

- a. Enclosed cab
- b. Front and rear windshield wipers
- c. Suspension seat
- d. Air conditioned and heated cab
- e. Gauge package f. Work lights

SPECIFICATION #36 - MOTORGRADER

2019 Case 865B 2019 Caterpillar 120M 2019 John Deere 620G

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Liquid cooled 6 cylinder diesel with minimum of 140 net hp @ 1900 RPM..

2. TRANSMISSION:

- a. Power shift with direct drive.
- b. Minimum 8 forward and 4 reverse speeds.

3. BRAKES:

a. Wet multiple disc.

4. STEERING & ARTICULATION:

- a. Front steer plus articulated.
- b. Minimum articulation 20 degrees.

5. MOLDBOARD:

a. Minimum 12 ft. long.

6. OPERATOR ENVIRONMENT:

- a. Low profile cab.
- b. Cloth adjustable seats.
- c. Gauges including hour meter, fuel, articulation, engine coolant temperature.

7. <u>TIRES:</u>

a. Minimum 13.0 – 24 10 PR 9" single piece rim.

<u>SPECIFICATION #37 - 70 HP BULLDOZER CANOPY TRACTOR (STANDARD TRACK - </u> **WIDE TRACK OPTIONAL)**

2019 Case 650M 2019 Caterpillar D3 2019 John Deere 450K

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Minimum 4 cylinder 70 Net HP

2. TRANSMISSION:

- a. Hydrostatic, infinitely variable speed.
- b. Constantly variable

3. <u>UNDERCARRIAGE:</u>

- a. Minimum 5 rollers
- b. Standard grouser minimum of 16"
- c. Top roller, each side

4. DOZER:

- a. Minimum 96" wide b. Minimum 32" high

- c. Minimum 1.88 cyd blade capacity d. Power, angle, tilt (PAT) type blade

<u>SPECIFICATION #38 - 90 HP BULLDOZER CANOPY TRACTOR (STANDARD TRACK - </u> **WIDE TRACK OPTIONAL)**

2019 Case 850M 2019 Caterpillar D4 2019 John Deere 650K

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Minimum 4 cylinder 90 Net HP

2. TRANSMISSION:

- a. Hydrostatic, infinitely variable speed.
- b. Constantly variable

3. <u>UNDERCARRIAGE:</u>

- a. Minimum 6 rollers
- b. Standard grouser minimum of 18"
- c. Top roller, each side

4. DOZER:

- a. Minimum 104" wide
- b. Minimum 36" high
- c. Minimum 2.5 cyd blade capacity d. Power, angle, tilt (PAT) type blade

SPECIFICATION #39 - 180 HP BULLDOZER CANOPY TRACTOR

2019 Case 2050M 2019 Caterpillar D6T 2019 John Deere 850K

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. Minimum 6 cylinder 180 H.P. diesel engine

2. TRANSMISSION:

- a. Power shift or hydrostatic drive
- b. Power shift to have 3 forward and reverse gear ranges minimum
- c. Hydrostatic drive to be variable

3. <u>UNDERCARRIAGE:</u>

- a. 7 rollers each side minimum
- b. Top roller each side minimum
 c. Manufacturers standard length track
- d. Manufacturers standard track width
- e. 24" grouser width

4. DOZER BLADE:

- a. 128" wide
 b. 48" high
 c. 2.5 cubic yard blade capacity
- d. PAT type blade, power angle and tilt, hydraulically controlled

5. OPERATING WEIGHT:

a. Minimum Operating Weight - 43,000 LBS.

SPECIFICATION #40 - ALL TERRAIN WALKING EXCAVATOR

2019 Kaiser S2 2019 Menzi Muck M3

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

- a. 15,873 lbs. 2x4
- b. 17,196 lbs. 4x4

2. ENGINE/CAB:

- a. Diesel engine, minimum 95 net horsepower
- b. Roll over enclosed cab air conditioned and heated.
- c. Hinged quick release side window for emergency exit (operational at all boom positions).
- d. Hinged front window opening outward for safety (not inward reducing operator head room).
- e. Gauges or warning indicators for fuel level, engine oil, hydraulic oil and coolant.
- g. Air sprung operators seat
- h. Full size cab (width of machine) for operator comfort and room with toolbox.

3. TRAVEL SYSTEM:

- a. Minimum high speed travel 5 mph
- b. Minimum grade-ability 70%
- c. Four tires

4. HYDRAULIC SYSTEM:

- a. Piston type hydraulic pumps.b. Digging depth 15'4"
- c. Auxiliary hydraulic circuit and controls plumbed to the end of stick with disconnect to allow the use of hydro-mechanical work
- d. Hydraulic motor-driven swing system.
- e. Stabilizers to be individually controlled in the vertical and horizontal positions.
- f. Boom assembly hydraulic hoses mounted on left side in operator's field of vision.

5. ELECTRICAL SYSTEM:

- a. 12 or 24 volt
- b. 30 amp alternator
- c. Work lights

6. BUCKET:

a. 4' wide grading bucket

<u>SPECIFICATION #41 - HYDRAULIC MINI EXCAVATOR - 7,105 LB OPERATING WEIGHT</u>

2019 Bobcat E32 T4 2019 Case CX33C 2019 Caterpillar 303E CR 2019 Hitachi ZX35-U-5 2019 John Deere 35G 2019 Kobelco SK35SR 2019 Kubota U35-4 2019 Sany SY35 2019 Takeuchi TB240 2019 Volvo EC 35 D 2019 Yanmar Vi035-6A

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. 7,105 minimum capacity weight with canopy

2. ENGINE/CAB:

- a. Diesel engine, minimum 23 net horse power
- b. Rollover and falling object protective structures
- c. Gauges or warning indicators for fuel level, engine oil, hydraulic oil and coolant.

3. TRAVEL SYSTEM:

- a. Minimum high speed travel 2.3 MPH
- b. Minimum gradeability, 20 degrees
- c. 11" wide rubber belt tracks

4. HYDRAULIC SYSTEM:

- a. Gear type hydraulic pump
- b. Digging depth 9' minimum
- Auxiliary hydraulic circuit and controls plummed to the end of stick with disconnect to allow the use of hydro-mechanical work tools
- d. Backfill blade
- e. Hydraulic motor-driven swing system

5. ELECTRICAL SYSTEM:

- a. 12 volt electrical system
- b. 40 amp alternator
- c. Sealed electrical connector
- d. Work lights

SPECIFICATION #42 - HYDRAULIC EXCAVATOR - 15,590 LB OPERATING WEIGHT

2019 Bobcat E85

2019 Case CX75C 2019 Caterpillar 308E2

2019 Doosan DX85R-3

2019 Hitachi ZX75US-5

2019 John Deere 75G 2019 Kobelco SK-75SR-3E

2019 Kubota KX080-4S

2019 Link-Belt 75X3

2019 Sany SY75

2019 Takeuchi TB290

2019 Volvo ECR88D

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight 15,590 lb.

2. ENGINE:

- a. Diesel engine, 53 horsepower
- b. Spin on type filter
- c. Two stage air cleaner

3. TRAVEL SYSTEM:

a. Travel speed of 3.0 mph

4. HYDRAULIC SYSTEM:

- a. Standard auxiliary hydraulic valve
- b. Main hydraulic system flow 33.8 GPM

5. UNDERCARRIAGE:

- a. Overall track length 9'1"
- b. Overall track width 11' minimum 7'6"
- c. Shoe width 17.7" minimum

6. OPERATING STATION:

- a. Cab to be air conditioned, heated and pressurized filtration system
- b. Intermittent windshield wipers
- c. Opening front windshield
- d. Vibration dampening cab mounts
- e. Adjustable suspension type operator seat with safety belt
- f. Tinted safety glass
- g. Engine monitoring system with audible alarms
- h. Work lights

7. STICK, BOOM, BUCKET:

- a. Boom and stick combination to allow minimum reach at ground level of 20'11"
- b. Bucket to be general purpose bucket, appropriately sized for machine and included.

8. SWING SYSTEM:

- a. Swing radius 5' approximate
- b. Swing speed 9.0 rmp

9. MISCELLANEOUS:

a. Fuel capacity of 26 gallons

SPECIFICATION #43 - HYDRAULIC EXCAVATOR - 38,000 LB OPERATING WEIGHT

2019 Case CX160D 2019 Caterpillar 316F 2019 Doosan DX180LC-5 2019 Hitachi ZX160LC-6 2019 John Deere 160GLC 2019 Kobelco SK170LC 2019 Link-Belt 160X4 2019 Volvo EC160EL

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight - 38,000 lbs

2. ENGINE:

- a. Turbocharged diesel engine 113 hp
- b. Spine on filters
- c. Two stage air cleaner

3. TRAVEL SYSTEM:

a. Travel speed of 3.2 mph

4. <u>HYDRAULIC SYSTEM:</u>

- a. Standard auxiliary hydraulic valve
- b. main hydraulic system flow 72 GPM minimum

5. <u>UNDERCARRIAGE:</u>

- a. Overall track length 12' 10" minimum b. Overall track width 8'5" minimum
- c. Shoe width 24"

6. OPERATING STATION:

- a. Cab to be air conditioned, heated and pressurized filtration system
- b. Intermittent windshield wipers
- c. Opening front windshield
- d. Vibration dampening cab mount
- e. Adjustable suspension type operator seat with safety belt
- f. Work lights

SPECIFICATION #44 - HYDRAULIC EXCAVATOR - 76,550 LB OPERATING WEIGHT

2019 Case CX350D 2019 Caterpillar 336 2019 Doosan DX350LC-5K 2019 Hitachi ZX350LC-6 2019 John Deere 350GLC 2019 Kobelco SK350LC 2019 Link-Belt 350X4 2019 Sany SY365 2019 Volvo EC350 E

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operatiing weight - 76,550

2. ENGINE:

- a. Turbocharged diesel engine 257 HP
- b. Spin on type filtersc. Two stage air cleaner

3. TRAVEL SYSTEM:

a. Travel speed of 2.9 mph

4. HYDRAULIC SYSTEM:

- a. Standard auxilliary hydraulic valve
- b. Main hydraulic system flow 144 GPM minimum

5. UNDERCARRIAGE:

- a. Overal track length 16'2"
- b. Overall track width 10'6"
- c. Shoe width 24"

6. OPERATING STATING:

- a. Cab to be air conditioned, heated and pressurized filtration system
- b. Intermittent windshield wipers
- c. Opening front windshield
- d. Vibration dampering cab mounts
- e. Adjustable suspension type operator seat with safety bel
- f. Tinted safety glass
- g. Engine monitoring system with audible alarm h. Work lights

7. STICK, BOOM, BUCKET:

- a. Boom and stick combination to allow minimum reach at ground level of 35'6"
- b. Bucket to be a general purpose bucket, appropriately sized for machine and included

8. SWING SYSTEM:

- a. Swing radius 12
- b. Swing speed 9.2 RPM

9. MISCELLANEOUS:

a. Fuel capacity of 145 gallons minimum

SPECIFICATION #45 - HYDRAULIC EXCAVATOR, WHEELED TYPE - 42,000 LB **OPERATING WEIGHT**

2019 Caterpillar M318 2019 Doosan DX210WE-5 2019 John Deere 190 GW 2019 Volvo EW180E

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight - 42,000 lbs.

2. ENGINE:

- a. Turbocharged diesel engine 140 hp
- b. Spin on type filters
- c. Two stage air cleaner

3. TRAVEL SYSTEM:

a. Travel speed of 21 mph

4. HYDRAULIC SYSTEM:

- a. Standard auxiliary hydraulic valve.
- b. Hydraulic system flow 99 gpm minimum.

5. WHEEL DRIVE:

- a. Wheelbase 8' minimum
- b. Tire size 10:00x20
- c. Ground clearance 13" minimum
- d. Gradability 61 percent

6. OPERATING STATION:

- a. Cab to be air conditioned, heated, and pressurized filtration system.
- b. Intermittent windshield wipers.
- c. Opening front windshield.
- d. Vibration dampening cab mounts.
- e. Adjustable suspension type operator seat with safety belt.
- f. Tinted safety glass.
- g. Engine monitoring system with audible alarms. h. Work lights.
- i. Tail, stop, turn, and emergency flashers.

7. STICK, BOOM, BUCKET:

- a. Boom and stick combination to allow minimum reach at ground level of 30' minimum.
- b. Bucket to be a general purpose bucket, appropriately sized for machine and included.

8. SWING SYSTEM:

- a. Swing radius 7 ft. approximate.
- b. Swing speed 9.5 rpm minimum.

9. MISCELLANEOUS:

a. Fuel capacity of 77 gallons minimum.

10. BLADE/OUTRIGGERS:

- a. Front blade with 8' minimum
- b. Rear outriggers

SPECIFICATION #46 - TELESCOPIC EXCAVATOR, TRACK TYPE - 45,000 LB **OPERATING WEIGHT**

2019 Gradall 4200

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight 45,000 lbs.

2. ENGINE:

- a. 4 cylinder turbocharged diesel, 170 HP at 2200 RPM
- b. Spin on type filters
- c. Two stage air cleaner d. 12 volt 100 AMP alternator
- e. 90 gallon fuel capacity

3. TRACK DRIVE:

- a. Two speed, automatic with manual override
- b. High torque piston motors each track
- c. Planetary drives
- d. Travel speed high 3.4 MPH, Low 1.9 MPH e. Automatic parking brake
- f. Individual track control

4. TRACKS:

a. 23.6 pad size

5. OPERATOR'S STATION:

- a. Acoustical lined
- b. Adjustable seat
- c. Tinted safety glass
- d. Filtered fresh air
- e. Heater, air conditioned, and defroster
- f. Wipers and washers
- g. Skylight h. Work lights

6. OPERATOR'S STATION CONTROLS:

- a. Electric engine monitoring system
- b. Auto idle
- c. Electronic joysticks on adjustable pedestals
- d. Pedals for travel and steering
- e. Low/high travel switch
- f. Engine speed control

7. SAFETY ITEMS:

- a. Electric horn
- b. Movement alarm
- c. Fire extinguisher
- d. Mirrors, right and left side

8. HYDRAULIC SYSTEM:

- a. Hydraulic oil cooler
- b. 120 HP track drive motors (each)
- c. 64 HP swing motor
- d. Electronic hydraulic system monitor
- e. Spin on hydraulic filters
- f. Swing speed 7.0 RPM
- g. Automatic swing brake

9. BOOM:

- a. Telescopic boomb. 180 degree boom rotationc. 30' reach at ground level from center pivot to buck cutting edge

10. <u>BUCKET:</u>

- a. 60" ditching bucket provided with machine b. Quick attach type

SPECIFICATION #47 - TELESCOPIC EXCAVATOR, WHEELED 6X6 - 47,000 LB **OPERATING WEIGHT**

2019 Gradall XL4100

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight 47,000 lbs.

2. CARRIER:

- a. Carrier Engine:
 - 1. 6 cylinder turbocharged diesel 250 hp at 2200 rpm
 - 2. Spin on type filters
 - 3. Two stage air cleaner
 - 4. 24 volt 70 amp alternator
- b. Carrier Transmission & Clutch:
 - 1. 6 speed automatic transmission
- c. Carrier Transfer Case:
 - 1. 1 to 1 transfer case
 - 2. Front axle disconnect
- d. Carrier Cab:
 - 1. One person cab
 - 2. Air ride seat
 - 3. Heater, air condition, and defroster
 - 4. 2 speed windshield wipers
 - 5. Tinted glass
 - 6. Isolated and acoustic lined
 - 7. Gauges to monitor engine functions

e. Frame:

- 1. Sized for GVW and stress of mounted upper structure
- 2. Bolt on front bumper
- 3. Desiccant type, spin on type, air dryer
- 4. Fuel tank 50 gallon minimum

f. Safety:

- 1. Electric horn
- 2. West coast mirrors with convex spot mirrors
- 3. Tow hooks
- 4. Fire extinguisher
- 5. Backup alarm

g. Front Axle:

- 1. 16,000 front drive axle

- Leaf spring suspension
 16.5x5 "S" cam brakes
 Automatic slack adjuster
- 5. Integral power steering
- 6. Hydraulic axle lockouts 7. 425/65R22.5 on/off road tires

h. Rear Axle:

- 1. Tandem axles 40,000 lb. rated
- 2. Hendrickson rear suspension
- 3. 16.5x7 "S" cam brakes
- 4. Automatic slack adjusters
- 5. 11R 24.5 traction type tires

3. <u>UPPER STRUCTURE:</u>

- a. Hydraulic System:
 - 1. 80 HP drive motor
 - 2. 44 HP swing motor

- 3. Automatic swing park brake4. 50 gallon oil reservoir5. Spin on hydraulic filters6. Swing speed 8 RPM

b. Hydraulic Remote Control:

- Travel and steering controls in upper structure cab
 Automatic brakes and axle lockouts
- 3. Movement alarm

- c. Upper Structure Cab:

 1. Isolated and acoustic lined
 2. Tinted safety glass
 3. Adjustable operators seat
 4. Heater, air condition, and defroster
 5. Work lights
 6. Wipers and washers
 7. Mirrors on left and right
 8. Skylight

 - 8. Skylight

d. Upper Structure Control:

- Electronic joysticks on adjustable pedestals
 Engine monitoring lights or gauge with audible warning or automatic shutdown
- 3. Pedals for steering and travel
 4. Low/high travel switch
- 5. Electric horn
- 6. Engine speed control

e. Bucket:

- Quick attach type
 60" ditching bucket provided with machine

- Telescopic boom
 180 degree boom rotation
 30' reach at round level from upper structure pivot to bucket cutting edge

SPECIFICATION #48 - COMPACTION VIBRATORY ROLLER (SINGLE DRUM) 30,000 LB

2019 Bomag BW177D-5 2019 Case SV208 2019 Caterpillar CS44 2019 Sakai SV540 2019 Volvo SD-75B

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight with open rops 15,200 lbs.

2. DRUM/VIBRATORY SYSTEM:

- a. Maximum compaction shall not be less than 30,000 lbs.
- b. Drum shall have a compaction width of not less than 66"
- c. Drum shall be smooth and not be less than 48" in diameter
- d. Vibratory system shall be hydraulically driven and have two amplitude settings
- e. Drum shall be equipped with an adjustable cleaning device
- f. Drum and vibratory pack shall be isolated from the machine during normal operation

3. ENGINE/CAB:

- a. Turbocharged diesel engine, minimum 74 HP
- b. Operator station shall be mounted to the frame with rubber mounts to further isolate the operation and controls from machine vibration during operation
- c. Guages or warning indicators for fuel level, engine oil, hydraulic oil and coolant temperature with an alert sounding device actived whenever a warning indicator is illuminated.
- d. A backup alarm shall emit an audible alarm whenever the propel lever is moved into reverse

4. TRAVEL SYSTEM:

a. A machine must be hydrostatic driven for the rear axle and the drum drive motor

5. ELECTRICAL SYSTEM:

- a. 12 or 24 volt electric system
- b. Maintenance free battery suppling 750 cold cranking amps c. Wiring harness protected with nylon-braided wrap

SPECIFICATION #49 - 47" SMALL DOUBLE DRUM ROLLER 5,400 LB

2019 Bomag BW120SL-5 2019 Case DV26 2019 Caterpillar CB24B 2019 Dynapac CC1200 2019 Volvo DD25B

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight 5,423 lbs.

2. DRUM/VIBRATORY SYSTEM:

- a. Drum compactor width on both drums no less than 47"
- b. Drum shall be smooth and not less than 27.5" in diameter c. Vibratory system shall be hydraulically driven
- d. Drum shall be equipped with scrapers both front and rear of both drums e. Drum shall be hydraulically driven and have two amplitude settings

3. ENGINE:

- a. Diesel engine of not less than 25 HP
- b. Reverse alarm for reverse operations

4. TRAVEL SYSTEM:

- a. The machine shall be hydrostatlically driven
- b. Steering shall be centered articulated and oscillated

5. MISCELLANEOUS:

- a. Unit shall be equipped with a pressurized water system for both drums
- b. Electrical system shall be 12 or 24 Volt

SPECIFICATION #50 - 70" LARGE DOUBLE DRUM ROLLER - 22,000 LB

2019 Bomag BW190AD-5 2019 Case SV216D 2019 Caterpillar CB13 2019 Sakai SW880 2019 Volvo DD120C

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight 22,000 lbs

2. DRUM/VIBRATORY SYSTEM:

- a. Drum compaction width on both drums no less than 70"
- b. Drum shall be smooth and not less than 48" in diameter c. Vibratory system shall be hydraulically driven
- d. Drum shall be equipped with scrapers both front and rear of both drums e. Drum shall be hydraulically driven and have two (2) amplitude settings

3. ENGINE:

- a. Diesel engine of not less than 100 HP
- b. Reverse alarm for reverse operations

4. TRAVEL SYSTEM:

- a. The machine shall be hydrostatically driven
- b. Steering shall be center articulated and oscillated

5. MISCELLANEOUS:

- a. Unit shall be equipped with pressurized water for both drums
- b. Electrical system shall be 12 or 24 volt

SPECIFICATION #51 - TRAILER MOUNTED SEWER CLEANER

2019 Obrien 7018-SC

2019 Sewer Equipment Co. of America 747-FR2000

2019 Vac-Con VecJet VJ700

2019 Vactor RamJet 4018

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE

- a. 60 h.p. diesel engine
- b. Water cooled
- c. Engine enclosure
- d. 15 gal. fuel tank

2. HIGH PRESSURE WATER PUMP

- a. 4000 psi at 18 gpm
- b. Pressure relief valve
- c. Triplex type pump
- d. Low water shutdown
- e. Multi-flow type system [pressure change without changes to engine rpm]

3. CONTROLS

- a. Located next to hose reel
- b. Ignition
- c. Throttle
- d. Gauge package [tachometer, hourmeter, oil pressure, volts, and low oil / high temp shutdown]
- e. Water control valve

4. WATER TANK

- a. 700 gal capacity
- b. High density polyethylene with baffles
- c. Sight gauge
- d. 2 1/2" overhead tank fill, anti siphon, air gap type
- e. Strainer
- f. Tank drain

5. HOSE REEL

- a. 800 'capacity of 1/2" high pressure sewer hose
- b. Hydraulic power in and out

6. HOSE REEL DRIVE HYDRAULIC SYSTEM

- a. Hydraulic pump 8 gpm
- b. 15 gal hydraulic reservoir
- c. Spin on type hydraulic filter

7. TRAILER

- a. 12000 lb gvw b. 6" x 3/16" frame
- c. Tandem axle d. 2 5/16" hitch
- e. Tongue jack
- f. 235 / 80 r 16" tires
- g. Fenders
- h. Breakaway switch
- i. Lighting as required by Federal and State laws
- j. Reflective striping
- k. Toolbox with locking system
- 1. LED directional arrowstick
- m. Warning beacon [tank mounted]

8. EQUIPMENT FURNISHED

- a. 500' of 1/2 " high pressure sewer hose
 b. 100' of 1/4" hose and nozzle for small pipe
 c. Washdown gun and 25 ' of hose with quick dissconnects
 d. Tiger tail hose protecter
 e. Nozzles to be furnished, 15 degree, 35 degree, chisel point, grenade flushing type, skid assembly, and rotater nozzle

SPECIFICATION #52 - VACUUM EXCAVATOR, TRAILER MOUNTED - 14,000 LB GVWR

2019 PacificTek PV800 2019 RamVac 1000 Vacuum Excavator 2019 Vac-Con Mudslinger MS800 2019 Vermeer LP873SDT 2019 X-Vac X800

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. 6,190 lbs. (without trailer)

2. ENGINE:

- a. 36 hp diesel engine
- b. Water cooled
- c. Fully enclosed sound attenuated engine enclosure (including vacuum pump and high pressure water pump)
- d. 15 gallon fuel tank

3. VACUUM PUMP:

- a. 580 CFM at 15 inches of mercury
- b. Mounted inside engine enclosure
- c. Washable filtration cylinders
- d. Reverse pressure (to clear hose and offload liquids)

4. HIGH PRESSURE WATER SYSTEM:

- a. 400 PSI at 4 GPM water pump
- b. Low water automatic shutdown
- c. Two 100 gallon poly water tanks
- d. 50' high pressure water hose on hose reel
- e. 5' and 3' wand and control handle

5. CONTROLS:

- a. Lockable and waterproof
- b. Curbside located
- c. Oil pressure, water temperature, fuel and vacuum gauge
- d. Electronic throttle

6. TANK:

- a. Full open rear door
- b. Door hydraulically opened
- c. Twin dump cylinders
- d. 6" stainless steel portal shutoff
- e. 800 gallon debris tank capacity

7. <u>BOOM:</u>

- a. 4" pickup hose
- b. Hydraulically powered in/out and up/down
- c. Boom cradle
- d. 360 degree movement
- e. 2 dielictric 3" suction wands
- f. 33' rubber suction hose

8. TRAILER:

- a. 7,000 lb. dexter torsion anxles
- b. 14,000 lb. GVWR
- c. 10,000 lb. jack stand
- d. I beam construction
- e. Pintle hitch
- f. Electric brakes with safety breakaway
- g. LT235/85R16 tires
- h. Stop/tail/turn lights

<u>SPECIFICATION #53 - 10 CU YD COMBINATION SEWER CLEANING/VACUUMING</u> **MACHINE**

2019 Aguatech B-10

2019 Sewer Equipment Co. of America 900-ECO-12YD Combo

2019 Super Products Camel Maxxx

2019 Vacall AJV 1010

2019 Vac-Con 11 Yard

2019 Vactor 2100I Plus

NOTE TO PURCHASERS: This is an INCOMPLETE UNIT. This is a bid award on a combination Sewer Cleaning/Vacuum Unit to be mounted on an appropriate sized cab & chassis truck. Agencies purchasing this unit will need to provide a cab & chassis truck of appropriate size, GVW, and, options necessary to have the selected combination Sewer Cleaner/Vacuuming Unit to be mounted on, or have the truck provider assist in ordering the correctly outfitted truck. Listed above you will find the model numbers of the units that will be included in the years contract. All items factory installed unless otherwise noted.

1. AIR/VACUUM SYSTEM:

- a. Positive displacement vacuum pump or centrifugal compressor
- b. 3500 CFM @ 14.5 inches of mercury, minimum
- c. Muffler
- d. Vacuum relief valves
- e. Centrifugal separator with clean out
- f. PTO or hydrostatic drive

2. DEBRIS TANK:

- a. 10 cu. yard capacity
- b. 45 degree hydraulic dump
- c. Top hinged
- d. Hydraulic door locks
- e. Sight glass or indicator
- f. Drain valve with hose
- g. Check ball system or vacuum breaker

3. **BOOM ASSEMBLY**:

- a. 270 degree boom working area
- b. Hydraulic up/down
- c. Clean out port
- d. Transport cradle
- e. 8" boom hose
- f. Pendant control

4. WATER PUMP:

- a. 2500 PSI, 80 GPM
- b. Pressure relief valve
- c. Wash down gun with relief valve

5. WATER TANK:

- a. 1000 gallon capacity
- b. Curb side fill
- c. Level indicators

6. HOSE REEL:

- a. 800' of 1" hose capacityb. 400' of 1", 2500 PSI hose supplied
- c. Power in/out
- d. Reel speed control system
- e. Position lock system
- f. Engine and hose reel controls
- g. Level wind

7. DRIVE SYSTEM:

a. Hydrostatic transfer case, split PTO, or auxiliary engine or transfer case

8. MISCELLANEOUS:

- a. Nozzles 15 degree and 30 degree for jet
 b. Wash down gun
 c. 8" intake tube 20' minimum
 d. Flexible hose guide
 e. Hose storage rack

SPECIFICATION #54 - 3 WHEEL MECHANICAL OR REGENERATIVE AIR SWEEPER

2019 Elgin Pelican 2019 Global M3 Regenerative Air Sweeper 2019 Global R3 3 Wheel Regenerative Air Sweeper

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

- a. 4 cylinder diesel engine 74 HP minimum.
- b. 120 AMP alternator
- c. Fuel water separator
- d. 30 gallon fuel tank capacity

2. TRANSMISSION:

- a. Hydrostatic drive type
- b. 35 gallon reservoir
- c. Capable of 20 MPH minimum

3. CAB:

- a. Sealed type cab with filtered intake.
- b. Tilt and telescoping steering column
- c. Tinted glass
- d. Sound suppressed
- e. Intermittent windshield wipers with washer
- f. Full gauge and warning lights for engine monitoring
- g. Climate controlled cab, heater, defroster and air conditioned
 h. If cab is not center mounted, it must have dual controls for operating on either right or left hand side.

4. FRAME:

- a. 116" wheelbase
- b. Rail type channel frame

5. SAFETY ITEMS:

- a. Dual west coast mirrors with spot mirrors
- b. Headlights, turn, brake and hazard lights
- c. Worklights for gutter brooms
- d. Cab mounted warning strobe light with protective cage
- e. Backup alarm
- f. Rearview backup camera

6. BRAKES/STEERING:

- a. Hydraulic power assisted service bakes
- b. Parking brake
- c. Turning radius 15' maximum

7. DEBRIS HOPPER:

- a. 3.5 yard capacity minimum
- b. 9'6" minimum dump height

8. CONVEYOR:

- a. Rubber belt type with flights
- b. Hydraulic drive

9. MAIN BROOM:

- a. 32" diameter minimumb. 56" width tube type
- c. Hydraulic drive

10. GUTTER BROOMS:

a. Right & left side brooms to have adjustable down pressure located in cab.

- b. 36" diameter minimumc. Segmented type broomd. Hydraulic drive

11. WATER SPRAY SYSTEM:

- a. 220 gallon water tankb. Run dry type water pumpc. 15' hydrant fill hosed. Water spray jets adjacent to all brooms
- e. Water filter

12. PICK UP HEAD

- 1. The following requirements are for the regenerative air system type sweeper. All other requirements are the same for either
- a. 72" outside dimensionb. 12" pressure hosec. 12" suction hose

- d. Spring type suspension

13. BLOWER

- 1. The following requirements are for the regenerative air system type sweeper. All other requirements are the same for either
- a. Direct hydraulic drive
- b. Cast aluminum with abrasion resistant coating c. Blower housing rubber lined

SPECIFICATION #55 - CABOVER MECHANICAL BROOM STREET SWEEPER

2019 Elgin Eagle 2019 Johnston ES351 2019 Schwarze M6 Avalanche

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. CAB & CHASSIS:

- a. Engine:
 - 1. 6 cylinder diesel 200 HP minimum
- b. Transmission:
 - 1. Automatic transmission to meet the correct engine size and GVW of vehicle. Hydrostatic drive is acceptable.
- c. Engine Equipment:
 - 1. Alternator 12V / 130 AMP
 - 2. Fuel water separator
 - 3. Fuel tank 50 gallon
- d. Cab:
- 1. Dual operating position type cab to include: Steering, controls, etc for sweeping from either side.
- 2. Rubber floor mats
- 3. Air ride seating
- 4. Pressurized cab with heat and air conditioning
- 5. Instrumentation for truck oil pressure, water temperatures, voltmeter gauges
- 6. Instrumentation for sweeper-tachometer, hour meter, oil pressure, coolant temperature gauges
- e. Frame:

 - 1. Rail type 80,000 psi 2. Size 10.9" x 3.5" x .34"

 - 3. Frame overhang
 4. Wheelbase 130" minimum
 - 5. Front steel bumper
- f. Safety:
 - 1. Dual West Coast bright finish heated mirrors with LH & RH remote
 - 2. Intermittent windshield wipers
 - 3. Daytime running lights
 - 4. Backup alarm
 - 5. Auto shutdown
- g. Axles:
 - 1. Front axle: 11,900 lb. GVW
 - 2. Rear axle: 21,000 lb. GVW
 - 3. Single speed rear axle
 - 4. 22.5 x 8.25 steel wheels disc type 5. 11R x 22.5 14-ply radial tires
- h. Brakes:
 - 1. Antilock brakes

 - 2. Front air brakes 15 x 4 drum3. Rear air brakes 16.5 x 7 drum
 - 4. Automatic slack adjusters front and rear
 - 5. Air dryer frame mounted

2. MOUNTED SWEEPER BODY (STANDARD EQUIPMENT):

- a. Engine:
 - 1. 4 cylinder diesel 47 horsepower, governed at 2800 RPM
 - 2. Spin-on oil filter
 - 3. Alternator 12V / 60AMP
- b. Side Brooms:
 - 1. Right & left side gutter brooms (tilt control in cab)
 - 2. Hydraulically raised & lowered 3. 42" diameter segment type

 - 4. Adjustable down pressure (Manual) optional down pressure pump

c. Main Broom:

- 1. Length 58" minimum 2. Diameter 35" minimum
- 3. Hydraulic motor direct or chain drive and reversible
- 4. Full floating trailing arms w/shocks5. Lift Control inside cab

- d. Sweeper Body:

 1. Overall height 10' with strobe

 2. Lift capacity 11,000 lbs minimum

 3. 4.5 cubic yard 100 periodents

 - 4. Dump height 10' minimum
 5. Lift design hydraulic 2-stage scissors
 - 6. Hopper inspection door
 - 7. Work lights 1 on each gutter broom and one in rear

e. Hydraulic System:

- Hydraulic pump capacity minimum 24gpm@2600rpm
 Pump: dual tandem gear
- 3. Reservoir 21 gallons
- Spin-on 10 micron hydraulic pump
 Externally mounted reservoir level indicator

- f. Water Spray System:

 1. Water tank construction polyethylene and removable
 2. Water tank capacity 280 gallons minimum
 3. Fill hose 2 1/2" x 16' with NST coupler

 - Diaphragm pump type with run dry capability
 Pump capacity 3.0 GPM minimum
 Minimum of 9 spray nozzles 2 min per gutter broom, 3 min for main broom
 - 7. Water filter 80 micron mesh cleanable

- g. Conveyor/Elevator System:
 1. Minimum of 9 flights replaceable

 - Belt material rubber reinforced fabric
 Belt speed variable with auxiliary engine RPM

 - 4. Drive reversible with direct drive5. Elevator jam warning light & buzzer in cab
 - 6. Conveyer flush built in

SPECIFICATION #56 - COMPACT SWEEPER - 2.3 CU YD AIR SWEEPER

2019 Johnston C201 2019 Nitehawk Municipal Raptor II

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. OPERATING WEIGHT:

- a. 8800 LBS. GVWR
- b. Empty weight-5900 LBS

2. ENGINE/TRANSMISSION:

- a. 78 hp
- b. Hydrostatic drive

3. BRAKES/TIRES

- a. Drum type brakes [power assist]b. Front tire size 6.50 R10 Radial
- c. Rear tire size 225/75 R10 Radial

4. SWEEPER DIMENSIONS:

a. Height: 72" b. Width: 52" c. Length: 162"

5. HOPPER:

a. 2.3 cubic yard capacity

6. GUTTER BROOMS:

- a. Equipped with left and right side gutter broomsb. Front mounted 33.5" diameterc. Overall sweeping width 122"

7. WATER SYSTEM

- a. 66 gal recirculation water system capacity
- b. 40 gal clean water system capacity

8. LIGHTING / SAFETY

- a. Lighting package to enable vehicle to operate on the road
- b. Work lights for operation of vehicle at night
- c. Amber warning beacon
- d. Intermittent wipers

9. COMFORT ITEMS:

- a. Cab to be air conditioned and heated
- b. Suspension type operator seat

10. INSTRUMENTATION:

a. Full instrumentation to monitor operation of vehicle

11. <u>FAN UNIT:</u>

- a. Centrifugal type fan
- b. Wear resistant blades

SPECIFICATION #57 - REGENERATIVE AIR STREET SWEEPER

2019 Elgin Crosswind (J Plus) 2019 Johnston RT655 2019 Schwarze A7 Tornado

2019 Tymco 600

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. CAB & CHASSIS:

- a. Engine:
 - 1. 6 cylinder diesel, 200 HP minimum.
- - 1. Allison 2000 series, 5-speed automatic
- c. Engine Equipment:
 - 1. Alternator: 12 volt 100 amp
 - 2. Fuel water separator
 - 3. Spin-on filters
- d. Cab:
- 1. Cab over, steel cab, with rust preventative coating
- 2. Dual operating position type cab to include: steering, controls, etc for sweeping from either side
- 3. Rubber floor mats
- 4. Air ride suspension seats, both sides
- 5. Pressurized cab with heat and air conditioning
- 6. Instrumentation for truck oil pressure, water temperature, voltmeter gauges
- 7. Instrumentation for sweeper tachometer, houmeter, oil pressure, coolant temperature gauges
- e. Frame:
 - 1. Rail type 80,000 psi 12.69 section modulus 2. Wheelbase 152" minimum

 - 3. Front steel bumper
 - 4. Fuel tank 50 gallon
- f. Safety:
 - 1. West coast mirrors with lower mounted convex mirrors.
 - 2. Intermittent windshield wipers
 - 3. Daytime running lights
 - 4. Backup alarm
 - 5. Auto shutdown system for sweeper power plant
- g. Axles:
 - 1. Front axle: 11,900 lb. GVW
 - 2. Rear axle: 21,000 lb. GVW
 - 3. Single-speed rear axle
 - 4. 22.5 x 8.25 steel wheels disc type
 - 5. 11R x 22.5 14 ply tires
- h. Brakes:
 - 1. Antilock brakes
 - 2. Front 15 x 4 drum
 - 3. Rear 16.5 x 7 drum
 - 4. Automatic slack adjusters front and rear
 - 5. Air dryer

2. MOUNTED SWEEPER BODY:

- a. Engine:
 - 1. 4 cylinder turbocharged diesel 99 HP minimum

 - Spin-on oil filter
 Dual element air cleaner
 - 4. Alternator 12 volt 65 amp minimum
- b. Blower:
 - 1. Direct belt drive
 - 2. Blower rating 20,000 cfm

- 3. Blower housing construction of abrasion resistant steel4. Blower housing rubber lined

c. Pickup Head:

- 1. 90" OD
- 2. Hose size 14" pressure, 12" suction 3. Hydraulically raised and lowered

d. Side Brooms:

- Right and left side gutter brooms
 Hydraulically raised and lowered
 42" diameter segment type
 Adjustable downward pressure

- e. Sweeper Body:

 1. 7 yd. volume metric capacity
 2. 50 degree dump angle or raker bar
 3. Centrifical dust separator
 4. Hopper dump door to hydraulically open/close, lock and unlock
 5. Hopper screen hinged, quick release

f. Hydraulic System:

- Hydraulic pump capacity 7.7 gpm at 2500 rpm
 Direct drive hydraulic pump
 Reservoir 23 gal.
 Spin-on 10 micron hydraulic filter

- g. Water Spray Dust Control System:

 1. Water tank construction polyethylene
 2. 220 gallon capacity
 3. Fill hose 16' long
 4. Diaphragm pump type with run dry capability
 5. Pump capacity 5 gpm
 6. Pump pressure 25 psi
 7. 7 spray nozzles, 4" pickup head, 1" suction tube 2 on each side of broom
 8. Filter 80 mesh cleanable

SPECIFICATION #58 - SELF PROPELLED HYDROSTATIC BROOM - CENTER SLUNG

2019 Blaw-Knox CB-95 2019 Broce 350 Broom

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight 5,500 lbs.

2. ENGINE:

- a. Diesel engine 74 HP at 2200 RPM
- b. Pre-cleaner 54 klone or equivalent
- c. 27 gallon fuel tank

3. TRAVEL SYSTEM:

- a. 2 speed hydrostatic driveb. High speed travel, 20 MPH
- c. 225/75R15 tire size
- d. Joystick direction controls, or foot pedal
- e. Front or rear wheel steering

4. CAB:

- a. Roll over and falling object protective structures
- b. Enclosed cab with air conditioner, heater and defroster fan
- c. Front windshield wiper
- d. Gauges or warning indicators for fuel level, engine oil, hydraulic oil and coolant
- e. Right and left side doors
- f. Right and left side mirrors
- g. Shall have safety lighting package and night operating lighting package

5. BROOM:

- a. Minimum 7'6" poly or poly-steel brushb. Brush shall have quick charge core system
- c. Minimum 150 gallon brush watering attachment d. Shall have variable brush down-pressure control
- e. Brush shall be hydraulically driven

SPECIFICATION #59 - 7' X 16' ENCLOSED CARGO TRAILER - 7,000 LB GVWR

2019 Pace American CS7X16TE2 2019 United U-716TA35-8.5 2019 Wells Cargo CW1622-102

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. DIMENSIONS:

- a. Width 7'
- b. Length 16'
- c. GVWR 7,000 lb.

2. FRAME:

- a. Tubular steel main rails
- b. C-channel crossmembers
- c. Formed steel corner posts
- d. Steel roof bows
- e. Formed angle top and bottom sills f. Vertical sidewall posts on 16" centers
- g. Non-corrosive fasteners
 h. All exposed steel primed and painted
- i. 3 piece A frame
- j. Positive lock ball coupler
- k. Tongue jack
- 1. Safety chains DOT rated

3. FLOOR/WALLS/ROOF:

- a. 3/4" exterior grade plywood floorb. 1/4" plywood interior liner
- c. .030" prefinished aluminum exterior, state colors
- d. Smooth galvanized steel or one piece aluminum roof
- e. Fiberglass front cap
- f. Extruded aluminum bottom trim
- g. Extruded aluminum roof cove with drip rail h. Double locking door on rear

4. AXLES:

- a. Tandem 3,500 lb. torflex axles
- b. 15" wheels
- c. 205 x 15 trailer rated tires
- d. Electric brakes with breakaway switch

5. LIGHTING SYSTEM:

- a. Protected turn/stop/tail lights
- b. Clearance lights
- c. Wiring run in conduit
- d. Heavy duty trailer plug

6. MISCELLANEOUS:

a. Spare wheel and tire

SPECIFICATION #60 - 8'6 X 25' DECK OVER FLATBED TRAILER- 16,000 LB GVWR

2019 Big Tex 22PH255

2019 Eager Beaver B8-DOW

2019 Econoline BP0821DE Deckover Dovetail

2019 Felling Trailers FT-16-2

2019 Interstate 16BST

2019 Texas Trailer TX85258T

2019 Towmaster TC-16

2019 Trail King TK20

2019 XL Specialized Trailers XL 24 T

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. DIMENSIONS:

- a. Deck width 8'6"
- b. Overall deck length 25'
- c. Dovetail length 5'
- d. GVWR 16,000 lb.

2. FRAME:

- a. 5" channel side rails
- d. 3" channel cross members on 16" centers c. 4" channel undercarriage d. 2" x 3/8" rub rail with stake pockets

- e. Pintle hitch

3. <u>DECK:</u>

- a. 2 x 8 pressure treated deck
- b. Galvanized deck screws
- c. 5' dovetail
- d. Spring assist stand up ramps

4. AXLES:

- a. Tandem 8,000 lb. Dexter oil bath axles (2)
- b. Electric brakes
- c. Breakaway brake system with well cell battery

5. LIGHTING SYSTEM:

- a. Protected turn/stop/tail lights
- b. Wiring run in conduit
- c. Heavy duty trailer plug

- a. Spare tire and rack
- b. Lockable tool box
- c. Primed and painted choice of color
- d. Tongue jack rated for GVWR of trailer

SPECIFICATION #61 - PULL BEHIND DUMP TRAILER - 14,000 LB GVWR

2019 Big Tex 14LX

2019 Econoline LB0714HE Dump Trailer - Discontinued Jan 2019

2019 Felling FT-12DT-HD

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. GVWR:

a. 14,000 lbs.

2. BED:

- a. Grease on all hinges
- b. Self storing ramps
- c. D ring tie dows

3. BED SIZE & FRAME:

- a. 6'8" wide b. 14' length c. 24" deck height
- d. Tube steel box
- e. 10GA bed floor
- f. Rear stabilizers
- g. 12,000 lb. tongue jack
 h. 20" high sides and tailgate, minimum

4. BED LIFT:

- a. Scissor type hydraulic lift
- b. 12 volt power unit with battery
- c. 15' pendant control

5. <u>AXLES:</u>

- a. Dexter easy lube or equivalentb. Sized for GVWR of trailer
- c. 4 wheel electric brakes with breakaway

- a. Conspicuity type on sidesb. Tail/stop/turn lightsc. 7 way trailer plug

- d. Tarp system
- e. Spare tiref. Pintle type hitch or ball (customer selected)

SPECIFICATION #62 - 48' WASTE TRAILER WITH WALKING FLOOR

2019 East Manufacturing Unloader Live Floor

2019 Mac Trailer TNSP48MF 2019 Steco AW048102

2019 Warren WMFT

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. **DIMENSIONS**:

- a. Length 48' aluminum
- b. Width 102"
- c. Side height 100"

2. FLOOR:

- a. Keith or Hallco running floor
- b. Extreme duty slats with center rib

3. CROSSMEMBERS:

a. 14" spacing

4. CROSSTUBES:

- a. Center and rear crosstubes
- b. Bolt in style

5. LIGHTS:

- a. LED lights
- b. Mid turn lights

6. TARP:

- a. Manual roll type side to side
- b. Mesh type tarp

7. TAILGATE:

- a. Side swing left or rightb. CAM locking system with safety chain
- c. Extreme duty hinges

8. LANDING GEAR:

a. Holland Mark V

9. AXLES:

- a. TP axles or equivalent
- b. Same inner and outer bearings
- c. Outboard mount hubs

10. SUSPENSION:

- a. Cast hangers
- b. Leaf springs

11. TIRES AND WHEELS:

- a. Steel Disc 22.5x8.25
- b. 11R22.5 radial tires

- a. Tow hooks on rear
- b. Air deflector in front

SPECIFICATION #63 - HYDRAULIC TAIL TRAILER - 70,000 LB

2019 Felling Trailers FT-70-2-PL-HT 2019 Pitts HD35 2019 XL Specialized Trailers XL 80PT

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. **DIMENSIONS**

- a. Deck width 8'6"
- b. Overall length 48'
- c. Deck length 25'
- d. Hydraulic tail 12' (8' with 4' fold under) e. GVWR 70,000 LBS

2. FRAME

- a. Cambered "I" beam main frame
- b. 49" Kingpin height
- c. 16" Kingpin setting d. 82" Swing clearance e. 8' Upper deck length

3. DECK

- a. 1 ½" Apitone or oak decking b. ¼" Floor plate over wheels
- c. Traction plate on hydraulic tail

4. HYDRAULIC TAIL

- a. 8' Main tail
- b. 4' Fold under tail
- c. Hydraulic actuated with tail lock
- d. 14 degree load angle

5. LANDING GEAR

a. Pin drop type or 2 speed type

6. AXLES/SUSPENSION/TIRES

- a. 2 22,500 LB axles
- b. Oil seal hubs
- c. 6.5 x 17.5 steel wheels
- d. 235/75R x 17.5 radial tires
- e. Air brakes with automatic slack adjustors
- f. ABS brake system
- g. Air ride suspension with auto and manual controls

7. <u>LIGHTING</u>

- a. LED lighting
- b. Wiring in conduit
- c. Mid turn signals
- d. Lighting as per DOT regulations

8. MISCELLANEOUS EQUIPMENT

- a. 12.000 LB hydraulic winch mounted on upper deck over kingpin. Wireless control.
- b. Toolbox on upper deck
- c. Hydraulic tail controls both sides
- d. Air ride controls with dump valve

<u>SPECIFICATION #64 - ARTICULATED OFF ROAD DUMP TRUCK - 50,000 LB PAYLOAD CAPACITY</u>

2019 Bell B25E 2019 Caterpillar 725 2019 John Deere 260E 2019 Terex TA300 2019 Volvo A25G

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

- a. Minimum operating weight 40,000 lbs.
- b. Minimum gross weight (with payload) 91,000 lbs.

2. ENGINE:

- a. Turbocharged diesel engine, 265 hp 6 cylinder, 549 cubic inch minimum.
- b. Spin on type filters.
- c. Two stage air cleaner.

3. TRANSMISSION:

- a. 6 speeds forward, 1 speed reverse.
- b. Top speed of 31 mph
- c. Hydraulic retarder

4. BRAKES:

- a. Disc type service brakes.
- b. Disc type parking brake.

5. AXLES & DIFFERENTIALS:

- a. Differential locks
- b. Planetary gear reduction final drives.
- c. Inter axle differential lock.

6. <u>TIRES:</u>

- a. Tubeless, radial off road hauler tires.
- b. 23.5 R 25 tire size

7. STEERING:

- a. 45 degree left or right articulation angle.
- b. Secondary electric steering system for emergency steering.
- c. Double acting steering cylinders.

8. OPERATING STATION:

- a. Cab to be pressurized, heated, air conditioned and filtered.
- b. Built in ROPS/FOPS protection.
- c. Suspension type operators seat with seat belt.
- d. Cab instrumentation or engine monitoring system with audible alarms.
- e. Tinted glass windows.
- f. Sun visor
- g. Front and rear intermittent windshield wipers.
- h. Work lights, headlights, stop, tail and turn signal lights.
- i. Left and right mirrors.

9. BODY:

- a. Dump body tipping angle 70 degrees.
- b. Mud flaps
- c. Two single stage double acting body hoist cylinders.
- d. 18 yd. heaped capacity
- e. Body rise time maximum 12 seconds.

- a. 95 gallon fuel tank minimum.b. Guard or shielding package.

SPECIFICATION #65 - 80,000 LB LANDFILL COMPACTOR

2019 Bomag BC772RB-4 2019 Caterpillar 826 2019 Tana E380 Compactor 2019 Volvo LC450H Compactor

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. WEIGHT:

a. Minimum operating weight - 80,000 lbs.

2. ENGINE:

- a. Turbocharged diesel engine 400 hp minimum.
- b. Spin on type filters

3. TRANSMISSION/HYDRAULIC SYSTEM:

- a. Mechanical or hydrostatic drive will be acceptable.
- b. 2 speeds forward and 2 speeds reverse, minimum.
 c. Spin on type hydraulic filters.

4. OPERATING STATION:

- a. Enclosed, sound suppressed cab.
- b. Air filtration system
- c. Air conditioned, heater and defroster.
- d. Gauges and engine monitoring shutdown system.
- e. Adjustable suspension seat.
- f. Outside mirrors
- g. Work lights h. Windshield wipers and washer

5. ELECTRICAL SYSTEM:

a. 24 volt

6. WHEELS:

- a. Compaction wheels 48" width minimum.
- b. Wheel diameter 58" width minimum.
- c. Chevron chopper blades, weld-on or pin-on teeth type wheels acceptable.
- d. Anti wire wrapping device, if applicable.
- e. Cleaner bars, if applicable.

7. BLADE:

- a. Straight or U type trash blade acceptable.
- b. 14' blade minimum
- c. 6' blade height minimum
- d. Full width trash screen on top of blade.
- e. Bolt on cutting edges.

- a. Fully shielded engine compartment.
- b. Removable belly pan
- c. Landfill shielding package, if applicable.

SPECIFICATION #66 - MOBILE SHREDDER - TRAILER MOUNTED

2019 Tana Shark 440D Shredder

1. APPROXIMATE DIMENSIONS

a. Weight: 27,000 kg

b. Length: 27,000 kg b. Length: 15 740mm c. Width: 2 520mm d. Material feeding height: 3 395mm e. Belt discharge height: 4 030mm

2. ENGINE

a. Diesel, 540 hp @ 2100 rpmb. Turbocharged w/ intercooler c. 750 li fuel tank

3. POWERTRAIN

a. Hydro-static drive w/ auto speed control

b. Variable displacement drive motors

c. Axial piston pumps, variable displacement

4. ROTOR

a. Rotor diameter 920mm

b. Rotor 30 max rpm

c. Rotor shredding length 3000 mm d. Rotor knives 33, reversible type e. Counter knives 23 f. Adjustable rotor screen

5. CONTROLS

a. Gauge package, w engine protection shutdown

b. Shredder control unit to protect from overloading, overheating and damage of the powertrain

6. CONVEYOR

a. Hydraulic driven conveyor

b. Raised and lowered by hydraulics

7. TRAILER

a. Trailer to be constructed and sized for the installed unit, and will meet all local, state, and federal laws for use on highway.

b. Hydraulic support legs

SPECIFICATION #67 - BRUSH CHIPPER - TRAILER MOUNTED

2019 Bandit 15XP 2019 DuraTech TC-15 2019 Morbark M15R 2019 Vermeer BC1500

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. **DIMENSIONS**:

- a. Weight 6800 lbs.
- b. Width 72"
- c. Height 100"
- d. Length 176"
- e. 15" chipping capacity

2. ENGINE:

- a. 122 hp diesel engine
- b. Over center type clutch
- c. Heavy duty air cleaner
- d. Spin on type filters

3. CHASSIS:

- a. Main frame constructed of rectangular tubing or "z" section.
- b. 7000 lb. axle torsion type
- c. Electric brakes with breakaway switch
- d. ST 235/80R16 tires load range E
- e. Steel wheels
- f. Drop leg jack g. 2 1/2" diameter lunette or 2 5/16" ball hitch
- h. Adjustable height hitch
- i. Safety chains
- j. 6 way light connector
- k. All wiring in conduit to lights
- 1. Four function rear lights

4. FEED SYSTEM:

- a. Infeed throat opening 20" x 15"
- b. Serrated infeed rollers
- c. Feed rollers hydraulically driven
- d. Feed table height 27"
- e. Feed table length 30"
 f. Safety control bar a round infeed opening for emergency stop.

5. CHIPPER DRUM OR DISC

- a. Drum type:

 - Size 22" diameter x 22" width
 2 knife pockets 180 degrees apart
 - 3. Dual edge reversible knives
 - 4. Extreme duty bearings
 - 5. Adjustable bedknife (reversible)
- b. Disc type:
 - 1. 37" x 2" diameter disc
 - 2. 4 knives reversible

6. CHIPPER HOUSING:

- a. Easy access door for knife changes
- b. Drop down door for anvil adjustment or clean out
- c. Chipper housing to be constructed for maximum safety and operator protection

7. DISCHARGE CHUTE:

a. Rotation of 360 degrees

- b. Adjustable chip deflectorc. Locking pin for chute rotation

- a. 26 gallon fuel tankb. Engine shutdown systemc. Locking tool boxd. Vandalism protection

SPECIFICATION #68 - SELF PROPELLED STUMP CUTTER

2019 Bandit 2550 2019 Vermeer SC362 2019 Toro STX 38EFI

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

- a. 35 H.P. gasoline engine
- b. 6 gallon fuel tank
- c. Positive feed oil system with spin on filter
- d. heavy duty air filter
- e. 12 volt starting/charging system

2. **GROUND DRIVE**:

- a. Hydraulic Ground Drive
- b. 2 speed travel
- c. Hydraulic brake system
- d. Hydraulic steering system
- e. Hydraulic system spin on filter
- f. 4 gallon hydraulic reservoir

3. CUTTER DRIVE:

- a. Electric drive clutch
- b. Adjustable V belt drive

4. CUTTER WHEEL:

- a. 17" diameterb. 16 dual cutting edge teeth
- c. Teeth pocket mounted
- d. Cutter wheel guard

5. CONTROLS:

- a. Hourmeter
- b. Low-oil shutdown
- c. Boom swing left and right
- d. Boom up and down
- e. Travel forward and reverse
- f. Steering
- g. Operator presence shutdown

6. APPROXIMATE DIMENSIONS:

- a. Weight 1320lbs b. Length 110"
- c. Width 49"
- d. Height 53"

7. CUTTING DIMENSIONS:

- a. Above ground 24"
- b. Below ground 15"

SPECIFICATION #69 - WALK BEHIND TRENCHER

2019 Vermeer RTX250

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

- a. 25 H.P. gasoline engineb. 7 gallon fuel tank
- c. Positive feed oil system with spin on filter
- d. 12 volt starting/charging system

2. GROUND DRIVE:

- a. Hydrostatic
- b. Rubber ground tracks
- c. 7" track width
 d. 31" track length on ground

3. TRENCHER DRIVE:

- a. Hydraulic drive
- b. 8 gallon hydraulic reservoir
- c. Hydraulic system spin on filter

4. TRENCHER BOOM:

- a. Digging depth 48"
- b. Auger diameter 18"
- c. Cutting width minimum 4"

5. CONTROLS:

- a. Operator presence safety systemb. Low-oil shutdown system
- c. Steering control
- d. Operator presence safety system
 e. Low-oil shutdown system
- f. Steering control
- g. Trencher controls h. Travel control
- i. Boom controls

6. APPROXIMATE DIMENSIONS:

- a. Weight 1550 LBS. b. Length 79"
- c. Width 34"
- d. Height 48"

SPECIFICATION #70 - AIR COMPRESSOR, TRAILER MOUNTED

2019 Doosan P185WDO-T4F 2019 Ingersoll Rand 2475F13GH 2019 Ingersoll Rand 2475F14G 2019 SULLAIR 185 T4F 2019 Sullivan Palatek D185PDZ

1. APPROXIMATE DIMENSIONS

a. Weight: 1950 lbs.b. Length: 79 Inchesc. Width: 40 Inchesd. Height: 47 Inches

2. ENGINE

a. 49 hp Tier 4 Engineb. 12 Volt electrical systemc. Engine protection systemd. Gauge package

3. COMPRESSOR

a. 185 cfm @ 100 psi

b. Rotary or reciprocating style compressor

c. 2 service valves

4. TRAILER

a. 3700 GVW axle ratingb. Manufacturer Rated Tires

c. Fold up tongue jack

5. ENCLOSURE

a. Fixed weather enclosure over entire engine/compressor

b. 2 Full size tool boxes

SPECIFICATION #71 - CUSHION TIRE LIFT TRUCK - 4,000 LB CAPACITY

2019 Caterpillar 2CC4000 2019 Mitsubishi FG25 2019 Toyota 8FGCU20

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE:

a. 50 hp LP gas engine

2. TRANSMISSION:

- a. Powershift type
- b. Inching pedal
- c. 1 speed forward, 1 speed reverse

3. HYDRAULIC SYSTEM:

a. 19.0 gpm at 2250 psi

4. CHASSIS:

- a. Wheelbase 46"
- b. Tread width 33" (with standard tires)
- c. Ground clearance at lowest point 3"
- - 1. Front 18.0 x 7 x 12 cushion tire 2. Rear 14.0 x 5 x 10 cushion tire
- e. Steering radius 72"
- f. Brakes:
 - 1. Hydraulic service brakes
 - 2. Mechanical parking brake

5. <u>LIFT:</u>

- a. Two stage lift mast
- b. Lift height minimum 130"

- c. Lift capacity 4000 lbs. d. Fork spacing 7" to 32" minimum e. Tilt 5 degrees forward/10 degrees backward

- a. FOPS protectionb. Work lights
- c. Seat belts

SPECIFICATION #72 - SCISSOR LIFT - SELF PROPELLED

2019 Genie GS-1930 2019 Haulotte Optimum 1930 E 2019 JLG 1930 ÈS

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. DIMENSIONS (APPROXIMATE)

- a. 64" x 29" Platform
- b. 36" Extension Deck
 c. 25' Working Height (raised)
 d. 18' Platform Height (raised)
- e. Lift Capacity 500 lbs.

2. POWER:

- a. 24 Volt
- b. 4-6 Volt Batteries
- c. On Board Charging System
- d. Dual Front Wheel Drive

3. BRAKES:

a. 2 or 4 wheel brakes

4. PLATFORM:

- a. Fixed rails
- b. 36" Extension Deck
- c. AC Power to platform
- d. Lanyard attachment points (2)

5. SAFETY:

- a. Manual platform lowering
- b. Emergency Stop on Platform and Ground control
- c. Descent alarm
- d. Hour meter
- e. Horn
- f. Pothole guards
- g. On board diagnostic system
 h. Tilt lever sensor with alarm
- i. Scissor maintenance prop

SPECIFICATION #73 - RUBBER TIRE MATERIAL HANDLER, 48,000 LB OPERATING **WEIGHT**

2019 Caterpillar MH3022 2019 Sennebogen 818E

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. ENGINE

- a. Tier IV Final Diesel Engine 132 hp
- b. Spin on Filters
- c. Two Stage Air Cleaner

2. WEIGHT

a. Minimum Operating Weight - 48,000 lbs

3. TRAVEL SYSTEM

a. 2-speed - 0-3.0 mph/0-12.0 mph

4. HYDRAULIC SYSTEM

a. Main Hydraulic System flow 80 GPM

5. UNDERCARRIAGE

- a. Two axles with all wheel drive
- b. 8 10:00X20 Solid Tires

6. OPERATING STATION

- a. Cab to be climate controlled with pressurized filtration
- b. Hydraulic elevating cabc. Sliding door window and tilt out front window
- d. Tinted windows with safety glass
 e. Adjustable suspension seat with safety belt and seat heater
- f. Catwalk with handrail
- g. Fire extinguisher
 h. Rear view and right view camera system
- i. Halogen work lights on roof cap

7. WORKING EQUIPMENT

- a. Purpose built material handling boom and stick
- b. Safety check valves on boom and stick cylinders

SPECIFICATION #74 - HYBRID LIGHT TOWER

2019 MPMC MLT4x150-9155L Hybrid Light Tower 2019 SignalPower HT444PC

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. DIMENSIONS (APPROXIMATE)

- a. Length 174"
- b. Width Solar Panels Retracted 69"
- c. Height 72"
- d. Mast Deployed Height 30'
- e. Weight 1850 pounds.

2. GENERATOR

- a. Perkins 403.F.11-10KW Tier 4
- b. 2, 20A/120 v Receptacles
- c. Electric Start
- d. 12-30 Gallon Fuel Tank
- e. Auto Mode Automatic Start for Low Battery
- f. Hybrid Systems Automatically Switches Between Solar Battery, Generator, or Standard Household Current

3. TRAILER

- a. Axle 2000 lbs. b. 13" Wheels
- c. Hitch 3 Position Adjustable Ball
- d. Stabilizers 2 Extendable Outriggers; 1 Trailer Jack
- e. Top Mounted Fork Pockets and Single Lifting Eye
- f. Powder Coated DOT Rated Trailer with Lights
- g. Trailer Weight 1850 pounds

4. MAST

- a. 30 ft. Extendable Mast in 3 Stages
- b. Wind Stability to 40 mph
- c. Rotates 90 Degrees

5. LIGHTS

- a. 4 Quick Connect 320 Watt each LED Lights
- b. Dimmer Control
- c. Instant On/Off
- d. 365 Day Programmable Timer for Lights, On/Off
- e. Lens Patter Spread of 150 Degrees
- f. Meets DOT Anti-Glare Regulations

6. SOLAR PANELS

- a. 5 100 Watt Panels
- b. Operating Temperature 40c to 46c

7. BATTERIES

- a. 4 Deep Cycle Batteries
- b. Optional Lithium Cells
- c. 12 Volt, 220 AMP Hours

SPECIFICATION #75 - LIGHT TOWER - TRAILER MOUNTED

2019 Chicago Pneumatic - CPLT V4 2019 Doosan LCV6WKUB-60hz-TY

2019 Generac MLT3060

2019 Wacker Neuson LTN 6L

2019 Wanco WLT-4Mk106k

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE EQUIPMENT LISTED.

1. DIMENSIONS (APPROXIMATE)

- a. Length 170"
- b. Width 51"
- c. Height 74"
- d. Mast Deployed Height 30'
- e. Weight 1610 pounds.

2. ENGINE:

- a. 3 Cylinder Diesel Engine.
- b. 12 HP at 1800 RPM.
- c. Engine Protection Shutdown System.

3. GENERATOR:

- a. Wattage output 7000 Watt max, 6000 Watt continuous.
- b. Brushless type.
- c. 120/240 Volts at 60 Hz +/- 6% regulated.
- d. AMPS at 120/240V 50/25.
- e. Insulation class H.

4. FUEL TANK:

- a. 30 Gallon Capacity.
- b. Run Time (approx.) 64 hours.

5. TRAILER:

- a. Axle 1800 lbs.
- b. 13" tire size. c. Hitch 2" ball.
- d. Leaf Spring Suspension.
- e. Tongue Jack.
- f. 4 outrigger jacks.

6. CONTROL PANEL:

- a. Individual breakers for lights.
- b. Hour meter.
- c. Cabinet Lights.
- d. External receptacles: 1-30 AMP 120/240 Volt, twist lock, 1 GFC1, 15 AMP 120 Volt.

7. MAST:_

- a. 32ft. extendable mast.
- b. 4 each metal halide light heads.
- c. 440,000 lumens.
- d. 360 degree mast rotation.
- e. Fold down for transport.
- f. Winch for mast extension.

SPECIFICATION #76 - 125KW GENERATOR PACKAGE

2019 MPMC MP135S-2 2019 LJP ULJ125 2019 AKSA ULJ-125 2019 Blue Star Power Systems JD125-02 2019 Caterpillar D125-8 2019 Generac SD130 2019 Tradewinds TP125

> THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. GENERATOR REOUIREMENTS:

- a. Standby duty rated at 125.0 kW, 156.3 KVA, 8 power factor.
- b. 480 volts
- c. 3 phase, 60 hertz, 1800 rpm
- d. Directly connected to the engine flywheel housing with flex coupling.
- e. Generator shall meet performance class G3 of IEC.
 f. Unit shall be in compliance with and be UL 2200 labeled.

2. ENGINE:

- a. Water cooled diesel engine, sized for generator set.
- b. Emission compliant engine.

3. CONTROLS:

- a. Solid state, microprocessor based generator controls.
- b. Controls shall provide all operating, monitoring and control functions for generator set.

4. ENCLOSURE/SILENCER:

- a. Complete diesel engine generator set including control panel, engine starting batteries and fuel oil tank shall be enclosed in a factory assembled water protective, sound attenuated enclosure.
- b. Critical grade silencer.
- c. Companion flanges.
- d. Flexible stainless steel exhaust.

5. FUEL TANK:

- a. Double wall sub-base tank integral to enclosure.
- b. 24 hour capacity at 100% at full load.
- c. Rupture basin with 110% capacity.
- d. Locking fuel caps.
- e. Mechanical fuel level gauge.
- f. Low fuel level alarm contact.
- g. Fuel tank rupture alarm contact.
 h. Must meet UL 142 and FDEP standards.

6. BATTERY CHARGER:

- a. Current limiting battery charger to automatically charge batteries.
- b. Charger shall be dual charge rate with automatic switching to boost rate when required.
- c. Charger shall be mounted on genset package.

7. START UP AND TESTING:

a. Vendor must coordinate all start up and testing activities with the engineer and owner. After installation is completed by others and normal power is available, the vendor must perform a one (1) day start-up including the use of building load. The start-up technician will instruct all necessary personnel how to operate and maintain the equipment in accordance to the manufacturer's requirements.

8. CONDITIONS:

- a. In addition to equipment specified, each generator shall be equipped with all standard equipment as specified by the manufacture for this model and shall include but not be limited to the following necessary items:
 - 1. Initial filling of oil and antifreeze.
 - 2. Shrink wrap applied to the product to ensure a clean finish.
 - 3. During the start-up, the technician shall record the following information and provide to the owner for his records:
- b. Record Operating Voltage, Hz, Ph, and connected load (Amperage)

- c. Package information consisting of Make of generator (Cat, Wacker, or Tradewinds), Model (TJ125 TP20, DP125, etc.), Serial number of complete package, and Start-up date.
 d. Record engine and generator serial numbers.
 1. One complete set of operation and maintenance manuals.
 2. Two (2) year or 1500 hour standard standby generator warranty. Labor, materials, and travel for the warranty period repair will be paid by manufacturer during normal business hours.

SPECIFICATION #77 - 150KW MOBILE GENERATOR PACKAGE

2019 Blue Star Power Systems VD150-02 FT4

2019 Chicago Pneumatic CPG-250 T4F 2019 Doosan G190 WCU-34-T4F

2019 Generac/Magnum MDG175DF4

2019 LJP AT150

2019 MPMC MP150S-2

2019 Multiquip DCA 220SSJU4F

2019 TechnoGen FP200TSX

2019 Tradewinds TP150

2019 Wacker Neuson G180

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. GENERATOR REQUIREMENTS:

- a. Standby duty rated at 150kwe, 187kva, 8 power factor.
- b. Prime power duty rating 135kwe, 168kva, 0.8 power factor.
- c. Main Breaker shall be equipped with shunt trip.
- d. Generator end shall be Direct coupled to the engine flywheel with a flexible coupling.
- e. Generator shall meet performance class G3 of IEC.
- f. Jacket water heater.

2. ENGINE:

- a. 6 cylinder, water cooled, 1800rpm, diesel engine.
- b. Current emission compliant diesel engine.
- c. Spin on fuel and oil filters.

3. VOLTAGE CHANGE OVER SWITCH & DISTRIBUTION:

- a. Manual 3 position voltage change over switch to select each voltage as specified when the unit is not running.
 b. 1ph 120/240, 3ph 120/240, 3ph 120/208, and 3ph 277/480.
 c. A five point connection shall be provided for ease of connection of load leads.

- d. One 50amp, 120/240vac, 1 ph, twist lock receptacle.

- e. One 30amp, 120/240vac, 1 ph, RV type receptacle. f. Two 20amp, 120/240vac, 1 ph, duplex receptacle. g. Two 20amp, 120/240vac, 1ph, duplex GFI receptacle.
- h. Each receptacle shall be protected by a individual circuit breaker.
- i. A receptacle shall be provided to power both the jacket water heater and on board battery charger.
- j. Two thumb screw type connection points shall be provided for remote auto start.

4. CONTROLS:

- a. Solid state, microprocessor based generator controls.
- b. Controls shall provide all operating, monitoring and control functions for the generator set. Controls shall provide for auto start/stop
- c. A emergency stop push button will be installed.
- d. A voltage adjustment shall be provided in the panel to adjust voltage in all voltage positions.
- e. A switch shall be provided in the panel to turn all power off in the panel if not being used.

5. ENCLOSURE:

- a. Complete diesel engine generator set including control panel, engine starting batteries and fuel tank shall be enclosed in a factory assembled weather protective, sound attenuated enclosure. The sound attenuated enclosure noise level is not to exceed 73 – 75dba
- b. Oil and water drain lines shall be provided and extend to the enclosure wall with valves for easy service.
- c. Critical grade silencer.
- d. Companion flanges.
- e. Flexible exhaust-flex.
- f. Keyed alike lockable doors.

6. IN BASE FUEL TANK TRAILER:

- a. Trailer shall be DOT approved with proper serial number data plate indicating weight capacity minimum of 10,000lbs.
- b. Trailer will have dual axles with torque springs to reduce overall height of package.
- c. Standard 7 or 5 pin vehicle hitch receiver to be supplied.
- d. Trailer will have two rear level jacks with sand shoes and front leveling jack.
- e. Trailer will have hydraulic brakes.

- f. Trailer will have all necessary safety equipment to include but not be limited to an adjustable and removable pintle hitch, 30 inch safety chains, fenders, lights per DOT, and break away cable.
- g. Tires will be minimum load range type "D" (8 ply rating) with matching steel rims. Rims are to be finish painted.
- h. Minimum 8 hour capacity at 75% load rating to determine single wall tank size.
- i. A mechanical fuel gauge will be provided.
- j. Locking fuel cap.
- k. Low fuel level alarm.
- 1. All necessary vents and caps will be provided along with suction, return, and drain points.

7. BATTERY CHARGER:

- a. Battery will be installed in holding container with battery cables.
- b. Current limiting battery charger to automatically charge batteries.
- c. Charger shall be dual charge rate with automatic switching to boost rate when required.
- d. Charger mounted inside generator set package.
- e. Fully charged battery will be provided at time of delivery and start-up.

8. START UP & COMMISSIONING:

a. One (1) day start-up including operational test of equipment showing proper connection of cables with safety issues performed by a factory trained technician. The start up technician will instruct personnel how to operate and maintain the equipment in accordance with the manufacturer's requirements.

9. CONDITIONS:

- a. In addition to equipment specified, each generator shall be equipped with all standard equipment as specified by the manufacturer for this model and shall include but not be limited to the following items:
 - All product shall be new and of current design.
 - 2. Initial filling of oil and antifreeze. (diesel fuel by others)
 - 3. During start-up, the technician shall record the following information and provide to owner for his records:
- b. Operating Voltage, Hertz, Phase, and connected load (Amperage). [if any]
- c. Package information consisting of Make of generator (Cat, Wacker, or Tradewinds), Model (TJ125 TP20, DP125, etc.), Serial number of complete package, and Start-up date.
- d. Written Information consisting of make, model, serial number, and start-up date.
- e. Record Engine and Generator Serial numbers.
 - 1. One complete set of operation and maintenance manuals.
 - 2. Two (2) year or 1500 hour standard mobile generator warranty will apply. Generator to be transported to authorized servicing dealer for warranty repair during normal business hours.

10. TRAILER

a. The trailer must have a vin and a certificate of origin

SPECIFICATION #78 - 500KW GENERATOR PACKAGE

2019 AKSA APD-ULJ500 2019 Blue Star Generator (VD500-01) 2019 Caterpillar 15 ACERT 2019 Generac SD500 2019 LJP ULJ500 2019 MPMC MP500S-2 2019 Tradewinds T500 2019 Wacker Neuson G625

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. GENERATOR REQUIREMENTS

- a. Standby duty rated at 500kwe, 625kva, 0.8 power factor
- b. 480 volts
- c. Voltage options are: 120/240, 120/208 or 277/480 3ph
- d. Directly connected to the engine flywheel housing with a flex coupling
- e. Generator shall meet performance class G3 of IEC
- f. Unit shall be compliance with UL 2200 specifications

2. ENGINE

- a. 6 cylinder, water cooled, 1800rpm, diesel engine
- b. Emission compliant engine to stationary standby regulations

3. CONTROLS

- a. Solid state, microprocessor based generator controls
- b. Controls shall provide all operating, monitoring and control functions for the generator set.
- c. Control panel is NFPA110 Compliant

4. ENCLOSURE/SILENCER

- a. Complete diesel engine generator set including control panel, engine starting batteries and fuel oil tank shall be enclosed in a factory assembled weather protective, sound attenuated enclosure with oil and water drain lines
- b. Enclosure shall be constructed from aluminum, preferably out of .125 thickness and 5058 marine grade aluminum.
- c. Critical grade silencer (25DB Reduction)
- d. Companion flanges
- e. Flexible stainless steel exhausts flex.

5. FUEL TANKS

- a. Double wall sub-base diesel fuel tank shall be integral to the enclosure
- b. 24 hour capacity at 75% load rating
- c. Rupture basin will be of 110% capacity
- d. Locking fuel caps
- e. All necessary vents and caps will be provided
- f. Mechanical fuel level gauge
- g. Low fuel level alarm contact
- h. Fuel tank rupture basin alarm contact
- i. Must meet UL 142 and FDEP standards

6. BATTERY CHARGER

- a. Current limiting battery charger to automatically charge batteries
- b. Charger shall be dual charge rate with automatic switching to boost rate when required.
- c. Charger shall be mounted on genset package.

7. DELIVERY

- a. Net cost includes delivery of equipment to governmental site location.
- b. Coordination and offloading of the equipment at the governmental site location will be the responsibility of the purchasing agency.

8. START UP AND COMMISSIONING

a. Vendor must coordinate all start up and testing activities with the engineer and owner. After installation has been completed, approved by the local electrical inspector, and normal power is available, the vendor will perform a One (1) day start-up including the use of building load. The start up technician will instruct all necessary personnel how to operate and maintain the equipment in accordance to the manufacturer's requirements.

9. CONDITIONS

- a. In addition to equipment specified, each generator shall be equipped with all standard equipment as specified by the manufacture for this model and shall include but not be limited to the following necessary items:
- b. Initial filling of oil and antifreeze
 c. Shrink Wrap applied to the product to ensure a clean finish
- d. During the start-up, the technician shall record the following information and provide to the owner for his records:Record Operating Voltage, Hz, Ph, and connected load (Amperage); Package Information consisting of Make, Model, Serial number, and Start-up Date; Record Engine and Generator Serial numbers.
- e. One complete set of operation and maintenance manuals.

 f. Two (2) years or 1000 hours standard standby generator warranty, whichever occurs first. Labor, materials, and travel for the warranty period repair will be paid by manufacturer during normal business hours.

SPECIFICATION #79 - 500KW MOBILE GENERATOR PACKAGE

2019 Blue Star Generator (VD500-02-FT4) 2019 Caterpillar 500 kW (XQ570) 2019 Holland PT6TPC-P1104D44T 2019 MPMC MP500S-2 2019 Tradewinds T500 2019 Wacker Neuson G625

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. GENERATOR REQUIREMENTS

- a. Standby duty rated at 500kwe, 625kva, 0.8 power factor.
- b. Prime power duty rating 450kwe, 563kva, 0.8 power factor.
- c. Main Breaker shall be equipped with shunt trip.
- d. Generator end shall be Direct coupled to the engine flywheel with a flexible coupling.
- e. Generator shall meet performance class G3 of IEC.

2. ENGINE

- a. 6 cylinder, water cooled, 1800rpm, diesel engine.
- b. Current emission compliant diesel engine.
- c. Spin on fuel and oil filters.
- d. Jacket water heater with service valves to ensure coolant does not need to be drained if heater needs service.
- e. 120vac, 1ph, 60hz input 10 amp, 24vdc, output automatic battery charger.
- f. Standard 4D lead acid batteries with battery rack and cables.

3. VOLTAGE CHANGE OVER SWITCH AND DISTRIBUTION

- a. Manual 2 position voltage change over switch to select each voltage as specified when the unit is not running
- b. 3ph 120/208, and 3ph 277/480
- c. Load leads shall be attached to the generator using two (2) forms and shall be rated for 2000 amps. Generator will be equipped with both:c-1. Five (5) compression lugs per phase rated for 400 amps each
- d. A 20 amp, 120vac, 1ph, male receptacle shall be provided to power the jacket water heater.
- e. A 20 amp, 120vac, 1ph, male receptacle shall be provided to power the battery charger.
- f. Two thumb screw type connection points shall be provided for remote auto start.

4. CONTROLS

- a. Solid state, microprocessor based generator controls
- b. Controls shall provide all operating, monitoring and control functions for the generator set. Controls shall provide for auto start/stop functions.
- c. An emergency stop push button will be installed.
- d. A voltage adjustment shall be provided in the panel to adjust voltage in all voltage positions.
- e. A switch shall be provided in the panel to turn all power off in the panel if not being used.
- f. A front face mounted circuit breaker shall be provided to protect the panel from any D.C. spikes.

5. ENCLOSURE

- a. Complete diesel engine generator set including control panel, engine starting batteries and fuel tank shall be enclosed in a factory
 assembled weather protective, sound attenuated enclosure. The sound attenuated enclosure noise level is not to exceed 80 dba @ 21
 feet
- b. Enclosure shall be constructed from aluminum, preferably out of .125 thickness and 5058 marine grade aluminum.
- c. Oil and water drain lines shall be provided and extend to the enclosure wall with brass ball valves for easy service.
- d. Critical grade silencer (25db reduction).
- e. e.Companion flanges.
- f. f.Flexible exhaust-flex.
- g. g.Keyed-alike lockable doors.

6. IN BASE FUEL TANK TRAILER

- a. Trailer shall be DOT approved with proper serial number data plate indicating weight capacity minimum of 20,000lbs.
- b. Trailer will have dual axles with torque springs to reduce overall height of package.
- c. Standard 7 pin vehicle wiring connector to be supplied.
- d. Trailer will have two rear level jacks with sand shoes and front leveling jack.
- e. Trailer will have hydraulic brakes.
- f. Trailer will have all necessary safety equipment to include, but not be limited to, an adjustable and removable pintle hitch, 36 inch safety chains, fenders, lights per DOT, and break away cable.
- g. Tires will be minimum load range type "D" (8 ply rating) with matching steel rims. Rims are to be finish painted.

- h. h.Minimum 8 hour capacity at 75% load rating to determine single wall tank size.
- i. A mechanical fuel gauge will be provided.
- j. Locking fuel cap.
- k. Low fuel level alarm.
- 1. All necessary vents and caps will be provided along with suction, return, and drain points.

7. BATTERY CHARGER

- a. Battery will be installed in holding container with battery cables.
- b. Current limiting battery charger to automatically charge batteries.
- c. Charger shall be dual charge rate with automatic switching to boost rate when required.
- d. Charger mounted inside generator set package.
- e. Fully charged battery will be provided at time of delivery and start-up.
- f. 120 volt shore power connector for battery charger.

8. START UP AND COMMISSIONING

a. One (1) day start-up including operational test of equipment showing proper connection of cables with safety issues performed by a factory trained technician. The start up technician will instruct personnel how to operate and maintain the equipment in accordance with the manufacturer's requirements.

9. CONDITIONS

- a. In addition to equipment specified, each generator shall be equipped with all standard equipment as specified by the manufacturer for this model and shall include, but not be limited to, the following items:
- b. All product shall be new and of current design.
- c. Initial filling of oil and antifreeze (diesel fuel by others).
 d. During start-up, the technician shall record the following information and provide to owner for his records:i.Operating Voltage, Hertz, Phase, and connected load (Amperage-if any).ii.Written Information consisting of make, model, serial number, and start-up date.iii.Record Engine and Generator Serial numbers.
- e. One complete set of operation and maintenance manuals.
- f. Two (2) years or 1000 hours standard mobile generator warranty will apply, whichever occurs first. Generator to be transported to authorized servicing dealer for warranty repair during normal business hours.

10. TRAILER

a. The trailer must have a vin and a certificate of origin.

SPECIFICATION #80 - 600 AMP AUTOMATIC TRANSFER SWITCH

2019 ASCO Series 300 2019 Caterpillar CTG Series 2019 GE Zenith ZTG600 2019 Generac GTS600 2019 Thomson TS 870

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. AUTOMATIC TRANSFER SWITCH:

- a. Maximum voltage rating of 600Vac, 60hz
- b. 1ph or 3ph
- c. Open transition (break-before-make) transfer logic
- d. Transfer switch must meet the related industry standards:
 - 1. UL 1008 Automatic transfer switches for use in emergency systems
 - 2. CSA Automatic transfer switches
 - 3. NEMA Industrial control and systems AC transfer switch equipment
 - 4. IEC Automatic transfer switching equipment

2. RATING:

- a. 600 amp, 3 pole, 277/480vac, 60hz
- b. Enclosure type: NEMA 3r

3. FUNCTIONAL:

- a. The automatic transfer switch shall automatically transfer the load to the generator supply in the event of a utility supply failure and return the load to the utility supply upon restoration. The automatic transfer switch power switching devices shall be mechanically and electrically interlocked to prevent the utility and generator supplies from being interconnected.
- b. All timers should be field adjustable to ensure proper field site compatibility.

4. AUTOMATIC SEQUENCE OF OPERATION:

- a. When the voltage on any phase of the utility supply is below present levels of rated voltage for a preset time delay, a contact shall close to initiate start of the standby generator.
- b. The load shall transfer to the generator supply when the generator voltage and frequency have reached acceptable present levels and the warm-up time delay has expired.
- c. When the utility supply is restores to the above present levels of rated voltage on all phases, load transfer from generator to utility supply shall be initiated following expiry of the utility return timer.
- d. Once the transfer mechanism operates and opens the generator power switching device, the transfer mechanism shall stop in the neutral position (i.e. with the both power switching devices open) for the duration of the neutral delay timer setting to allow load voltage to decay prior to reconnecting the utility supply.
- e. The load shall be re-connected to the utility supply once the neutral delay timer expires and the transfer mechanism continues operation and closes the utility power switching device.
- f. The load shall immediately retransfer to the utility supply (if within acceptable limits) should the generator supply fail prior to the expiry of the utility transfer delay.
- g. The generator set shall continue to operate following a load transfer for a cool down delay period, and then a contact shall open to stop the generator set.
- h. An "on load" test mode may be initiated which shall cause a simulated utility failure condition and transfer the load to the generator set. The transfer sequence shall be the same as for a utility power failure except a neutral delay sequence shall occur when transferring from utility to a generator source.
- i. The load shall immediately retransfer to the utility supply (if within acceptable limits) should the generator supply fail during an "on load" test mode.

5. FACTORY TESTING:

- a. A certified factory test report shall be shipped with each switch at time of shipment.
- b. The automatic transfer switch shall be factory tested prior to delivery to the purchaser. The following test shall be conducted by qualified factory personnel:
 - 1. Visual Inspection
 - 2. Mechanical Tests
 - 3. Electrical Tests
 - 4. Final Inspection

6. FIELD TESTING AND COMMISSIONING:

- a. The automatic transfer switch shall be field tested once installed at the project site to confirm proper operation of the system. Schedule and witness testing activities shall be coordinated with the project engineer, site contractor, and owner as required in advance of the testing date. A qualified local factory-trained field representative shall conduct the necessary test to ensure proper operation of the switch.
- b. Visual Inspection: Electrical and Mechanical inspection to verify the installation is correct as recommended by the transfer switch manufacturer and as per National Electric Code (NEC) requirements.
- c. Mechanical Tests: As a minimum, the following mechanical tests shall be performed on the transfer switch:
 - 1. Power conductor torque verification
 - 2. Verification of mechanical interlock
 - Manual ATS Mechanism Operation
 - All Mechanical Fasteners/Wire Connections Tight
 - Confirmations of correct transfer switch voltage, current and withstand ratings as is required for the application.
 - Meggar testing the power cabling to the transfer switch.
 - Verification of correct power cabling phasing and phase rotation prior to energization. Confirmation of settings for all timers & voltages sensors.

 - 9. Full Function test-normal operation 3 complete cycles of failing the utility supply, and transfer load to/from the generator
 - 10. Verification of all test modes operates correctly.

7. CONDITIONS:

- a. In addition to equipment specified, each automatic transfer switch shall be equipped with all necessary equipment as specified by the manufacturer for this model and shall include but not be limited to the following necessary items:
 - 1. Shrink Wrap applied to the product to ensure a clean finish.
 - One complete set of operation and maintenance manuals.
 - 3. A two (2) year or 1500 hour from date of standard standby warranty will apply from date of successful start-up. Labor, materials, and travel for the warranty period repair will be paid by manufacturer during normal business hours.

SPECIFICATION #81 - 6 INCH MOBILE PUMP PACKAGE

2019 BBA BA150E 2019 Godwin CD150M 2019 Pioneer PP66S12L71 2019 Holland Pumps (PT6TPC-P1104D44T) 2019 Supervac Triton 2019 Thompson 6JSC

2019 Tradewinds TPK064750

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. DESIGN REQUIREMENTS:

- a. Discharge size: 6 inches
- b. Suction size: 6 inches c. Capable of 1750 GPM minimum
- d. Capable of 160 ft. Total Dynamic Head (TDH) minimum
- e. Duty Point, Maximum: 1,000 gallons per minute minimum (GPM) at 120 ft. Total Dynamic Head (TDH)
- f. Impeller Diameter: Manufacturer's standard for pump
- g. Operating Speed Maximum: 2,200 RPM h. Solids Handling Size, Maximum: 3 inches

2. ENGINE:

- a. Diesel engine, appropriate to pump size at continuous duty.
- b. Emission compliant engine
- c. Industrial grade exhaust muffler and rain cap
- d. Oil and water drain lines with ball valves
- e. Low water level shutdown switch
- f. 12vdc system with battery rack and cables
- g. 50 gallon minimum fuel tank with low fuel level alarm and shutdown.

3. <u>PUMP:</u>

- a. Check valve
- b. Impellers
- c. Self priming system

4. CONTROLS:

- a. Solid state, microprocessor based pump controls.
- b. Controls shall provide all operating, monitoring and control functions for the pump set.
 c. Controller will also provide 2 fully programmable contacts for input and output signals accordingly.
- d. Controller will provide remote start stop control with adjustable ramp (speed) time control.
- e. UL 508 R and CSA C22.2 No. 14 approved.

5. TRAILER:

- a. The manufacturer shall mount the diesel engine and pump unit with the above 50 gallon subbase tank on a street legal D.O.T. approved trailer. This trailer will be able to be rated for a safe travel at speeds of 60 mpg and not be limited to the following specifications:
 - 1. Trailer design shall be such that the County/City may easily remove the entire engine, fuel tank and pump from the trailer.
 - 2. 12vdc electric system
 - 3. Lunette or military type towing ring with safety chains.
 - 4. Single point lifting bar.
 - 5. License plate bracket
 - 6. Sand shoe type support stands front and rear.
 - 7. Torque spring axles to meet load of trailer.
- b. The trailer must have a vin and a certificate of origin.

6. START UP AND COMMISSIONSING:

- a. Vendor must coordinate all start up and testing activities with the engineer/owner. After field delivery of the pump and trailer, an authorized factory representative shall perform the initial start up and field testing of the pump and trailer. If conditions permit, a site will be determined where connection will be made by the County/City to test the pump package. If a site cannot be prepared a standard operational test will be performed.
- b. At the same time the start up test is performed, the factory representative will provide all necessary operation, field maintenance and minor repair training as necessary. This will also include safety procedures and hazard assessment.

7. CONDITIONS:

- a. In addition to equipment specified, each pump package shall be equipped with all standard equipment as specified by the manufacturer for this model and shall include but not be limited to the following necessary items:

 Initial filling of oil and antifreeze.
 During the start up, the authorized factory representative shall record and provide the County/City with the engine and pump serial numbers for the owner records. At this time the warranty will begin.
 One complete set of operations and maintenance manuals.
 Two (2) year or 1500 hour standard standby pump package warranty. Labor, materials, and travel for the warranty period repair will be paid by manufacturer during normal business hours.

SPECIFICATION #82 - AQUATIC WEED CUTTER WORKBOAT

2019 Weedoo TigerCat Workboat

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. GENERAL DIMENSIONS

- a. Height- 8' b. Width-7' 3"
- c. Length- 15'
- d. Height from waterline- 48" e. Boat draft- 4" to 6" f. Weight 2285 lbs

2. ENGINE

- a. 3 cylinder diesel engineb. Liquid cooled
- c. Electric start, and charging system

3. HYDRAULICS

- a. Triple pump designb. 27 GPM
- c. Eco friendly hydraulic fluid

4. PROPULSION

- a. Twin hydraulic outdrives
- b. Weed and mud design propellers

5. VESSEL HULL

- a. Fiberglass/ Kevlar design
- b. Deck mounted cutter and loader

6. BOOM CUTTER

- a. Hydraulic drive
- b. Full articulation to cut 5' below waterline

7. FRONT END LOADER

a. Marine type vegetation bucket

8. OPERATOR STATION

a. All hydraulic functions/propulsion functions controls

9. TRAILER

a. Trailer to be designed specifically for this workboat and will meet all federal, state, and local laws for a trailer operated on the

SPECIFICATION #83 - AQUATIC HARVESTER WORKBOAT

2019 Weedoo Aqua Harvester 334

THE FOLLOWING ITEMS WILL BE FACTORY INSTALLED ON THE BASE VEHICLE/EQUIPMENT TO MEET THE MODEL NUMBER AND BUILD CODES OF THE VEHICLE LISTED.

1. GENERAL DIMENSIONS

- a. Height- 5' b. Width- 7' 3"
- c. Length- 15'
- d. Belt length- 5' 10"
- e. Belt width-39.9" f. Weight with twin motors-1800lbs

2. POWER PACK

- a. 24 volt electrical system
- b. Lithium batteries
- c. Solar charger
- d. Onboard marine charger

3. CONVEYOR

- a. Electric driven conveyor collector
- b. Detachable bag collector assembly

4. PROPULSION

- a. Twin electric motor outdrives
- b. Weed and mud design propellers

5. VESSEL HULL

- a. Fiberglass/ kevlar design
- b. Front mounted conveyor

6. OPERATOR STATION

a. All workboat controls to be located at the captain helm station

7. TRAILER

a. A trailer specifically designed for this workboat meeting all Federal, State and local laws for a trailer operated on public roads