



February 14, 2025

Fresno Area Express
2223 G Street
Fresno, CA 93706
Attention: Frank Peter
frank.peter@fresno.gov

RE: FRESNO AREA EXPRESS – Bus Rehabilitation Quote

On behalf of Complete Coach Works (CCW), I am pleased to submit our quote and project scope of work for the rehabilitation of FRESNO AREA EXPRESS transit buses. As the largest rehabilitation, retrofit, and upgrade company in North America, with over thirty-six (36) years of experience, Complete Coach Works stands uniquely qualified to partner with FRESNO AREA EXPRESS on this project.

Complete Coach Works has developed a base scope of work that has been tailored to FRESNO AREA EXPRESS 2013 New Flyer C40LFR Buses. The quote is based on this scope which is attached for reference. Any change to this scope will affect final pricing. Complete Coach Works will also be providing (11) 2013 New Flyer C40LFR Buses to be used in this rehabilitation project. This project is being executed in accordance with Washington State Contract 06719-04 - Rebuilt Bus Contract - CCW Supplied Bus.

Complete Coach Works quote for the attached scope of work is as follows:



COMPLETE COACH WORKS
An Employee Owned Company

Item	New Price
Base Bus Price from Contract Amendment 2	\$ 400,473.13
Add for CNG bus vs diesel	\$ 30,000.00
Delete Engine per section 20.0 on Scope of Work	\$ (90,000.00)
Delete Transmission per Section 21.0 on Scope of Work	\$ (20,000.00)
Add bike rack per Section 26.00 on Scope of Work	\$ 3,443.44
Delete door labor per Section 2.00 on Scope of Work	\$ (1,017.90)
Delete windshield labor per Section 4.03 on Scope of Work	\$ (3,053.70)
Delete stanchion labor per Section 5.03 on Scope of Work	\$ (2,035.80)
Delete flooring per Sections 6.01 and 6.02 on Scope of Work	\$ (7,571.60)
Delete Interior clean, modesty panels, etc. per Section 6.02 on Scope of Work	\$ (3,053.70)
Delete interior lights per Section 6.08 on Scope of Work	\$ (3,053.70)
Delete sunshades etc. per Section 6.09 on Scope of Work	\$ (2,017.90)
Add Farebox per Section 25.00 on SOW Fresno to supply All Parts & Components. CCW will supply needed harnesses and install Supplied Parts & Components.	\$ 1,895.32
Add Vontas V8 System CAD/AVL System per Section 28.01 on SOW. Fresno to supply All Parts & Components. CCW will supply needed harnesses and antenas and install Supplied Parts & Components.	\$ 14,260.37
Add Dilax 210 Automatic Pass Counter per Section 28.02 on SOW. Fresno to supply All Parts & Components. CCW will supply needed harnesses and install Supplied Parts & Components.	\$ 4,665.84
Add Traffic Priority Signaling GT 2100 and 4010 Radio per Section 28.03 on SOW. Fresno to supply All Parts & Components. CCW will supply needed harnesses and install Supplied Parts & Components.	\$ 3,765.50
Add new Hanover destination sign per Customer Spec and Section 44.02 on SOW.	\$ 13,441.10
Add Safety Vision camera system per Customer Spec	\$ 11,596.14
Total Adds and Deletes	\$ 3,739.98
Net Sell Price per Bus	\$ 355,476.53
Total Project Cost for (11) CCW Supplied Rebuilt Buses	\$ 3,910,241.78

This pricing is based on work being completed at CCW Headquarters in Riverside CA and includes transportation. The pricing does not include any applicable sales tax or licensing fees. Pricing is valid for 90 days.

Thank you for the opportunity to provide this budgetary quote. Please contact me by phone at (951) 836-6526 or e-mail: james@completecoach.com if you have any questions or need additional information.

Sincerely,



James Carson
Western Regional Sales Manager

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

Customer: CITY OF FRESNO _____ **Address:** 2223 G ST, FRESNO, CA 93706 _____

Customer Preference: Bus Manufacturer: NEW FLYER _____ Length: 40' _____

Model: 2013 C40LF _____ Engine: N/A _____ Trans: N/A _____

Parts, Service, & Operators Manuals Electronically Provided: -- _____

Electrical, Hydraulic, & Air Schematics Electronically Provided: -- _____

1.00 EXTERIOR BODY, PAINT & UNDERCARRIAGE STRUCTURE

1.01 EXTERIOR BODY

The body of the bus will be inspected for damage. Any damage found will be repaired or replaced as needed. Repairs will be performed using materials, workmanship, and design conforming to the best practices known in the transit industry.

1.02 EXTERIOR SKIRT PANELS & COMPARTMENT DOORS

Any skirt panels or compartment doors that have damage will be repaired or replaced as needed.

1.03 EXTERIOR COMPARTMENT DOORS

All exterior compartment doors will have the following components repaired or replaced as new:

- Latches
- Door rubber bumpers
- Prop rods
- Gas prop struts

1.04 EXTERIOR WHEEL WELL FLARES

Exterior wheel well rubber flares will be replaced with new, including new mounting hardware.

1.05 EXTERIOR FRONT & REAR BUMPERS

Front and rear bumper assemblies will be removed from the vehicle. Any damaged or defective parts will be repaired or replaced as needed. Front and rear bumpers will be painted black and reinstalled with new mounting hardware.

1.06 EXTERIOR MIRRORS & WINDSHIELD WIPERS

The curbside and street side exterior mirrors will be inspected for damage and function tested. Once mirror repairs are completed and the mirrors are made functional, the mirror housings, mirror arms and mirror mounting brackets will be painted black. The windshield wiper blades,

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

and washer fluid hoses will be replaced with new. The washer fluid tank and pump will be inspected for damage and function tested. Any damaged or defective parts will be repaired or replaced as needed. The wiper arms will be painted black.

1.07 EXTERIOR PAINT & DECALS

The bus exterior will be sanded, prepped, primed, and painted with a customer provided paint scheme. If applicable decal scheme layout to be provided by customer.

1.08 UNDERCARRIAGE

The bus will be elevated, and the entire bus under carriage will be carefully inspected. Any damaged parts or broken welds will be repaired or replaced as needed.

Structural components where greater than 25 percent (25%) of the original material thickness is removed by corrosion and reduces its structural integrity will be reinforced, repaired or replaced as needed.

All visible surface corrosion will be descaled. All affected areas will be treated with a corrosion inhibitor to prevent further spreading of corrosion.

Once the structural repairs are completed, new undercoating will be applied to the entire understructure of the vehicle and the front and rear mud flaps will be replaced as needed.

2.00 ENTRANCE & EXIT PASSENGER DOORS

~~**2.01 ENTRANCE & EXIT DOOR GLAZING**~~

~~Entrance and exit door glazing and seals will be removed from the doors. Glazing that has damage will be replaced as needed. Glazing seals will be replaced with new.~~

~~**2.02 ENTRANCE & EXIT DOOR PANELS**~~

~~Door panels that have damage will be repaired or replaced as needed. The interior of the entrance and exit door panels will be painted satin black.~~

~~**2.03 ENTRANCE & EXIT DOOR SHAFTS**~~

~~Door shafts will be inspected for damage and repaired or replaced as needed. All door shaft bushings, bearings, rollers and hardware will be replaced with new.~~

~~**2.04 ENTRANCE & EXIT DOOR SEALS & BRUSHES**~~

~~The entry and exit door panel seals, brushes, as well as body-to-door panel seals will be replaced with new. Exit door sensitive edge seals, tubes, pressure switches and hardware will be replaced with new.~~

~~**2.05 ENTRANCE & EXIT DOOR MOTORS**~~

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

~~The entry and exit door motors will be removed and rebuilt to include door motor o-rings, gaskets, seals, door motor connecting rod ends, relays, switches, and valves. Electric door motors will be inspected for damage and function tested. Defective electric door motors will be repaired or replaced as needed.~~

~~2.06 ENTRANCE & EXIT DOOR OPERATOR CONTROL VALVE~~

~~The entry and exit door operator control valve located on the driver's area side dash will be replaced with new.~~

2.07 ENTRANCE & EXIT DOOR ADJUSTMENTS & OPERATION

The entry and exit doors will be fully operational and adjusted to manufacturer's specifications.

3.00 ROOF ESCAPE HATCHES & VENTILATORS

Front and rear roof escape hatches/ventilator will be replaced with new.

4.00 PASSENGER WINDOWS, DRIVER'S WINDOW, WINDSHIELDS, & FRONT DESTINATION GLAZING

4.01 PASSENGER WINDOWS

Passenger windows will be removed from the bus. Window frames and glass will be inspected for damage. Any damage found will be repaired or replaced as needed. The inner and outer seals will be replaced with new. The window frames will be painted black.

All emergency window release handles and graffiti liners will be inspected. Any defective components found will be repaired or replaced as needed. All emergency egress slides and catch plates will be cleaned and lubricated. Install new GRAFFITI SHIELD.

Passenger windows will be reinstalled using new hardware.

4.02 DRIVER'S WINDOW

The driver's window will be removed from the bus. The driver's window inner and outer frame seals and track felt will be replaced with new. Frames will be painted black and reinstalled with new hardware.

~~4.03 WINDSHIELDS & FRONT DESTINATION SIGN GLAZING~~

~~The curbside and street side windshields will be removed and reinstalled with new windshield seats and lock seats. Any damaged windshields will be replaced as needed.~~

~~The front destination sign glazing will be removed and inspected for damage. Glazing with damage will be replaced as needed. Destination sign glazing will be reinstalled with new seat and lock seat.~~

5.00 DRIVER'S SEAT, PASSENGER SEATS & STANCHIONS

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

5.01 DRIVER'S SEAT

The driver's seat will be replaced with a new seat Spec to be provided by Fresno.

5.02 PASSENGER SEATS

~~The passenger seats will be removed from the bus and disassembled. Passenger seat frames, seat shells and plastic components will be repaired or replaced as needed. Passenger seat inserts will be reupholstered. Fresno to provide fabric specs. Once repairs are completed the passenger seats will be reinstalled with new hardware.~~

5.03 STANCHIONS

The stanchions will be removed and inspected for damage. Any damage found will be repaired or replaced as needed. All powder coated stanchions will be re-powder coated as needed in a matching color. Stanchions will be cleaned and reinstalled with new hardware.

6.00 INTERIOR FLOORING, PANELS, DRIVER'S AREA & LIGHTING

~~6.01 INTERIOR FLOOR COVERING & SUB-FLOORING~~

~~Rubber flooring and trim will be removed from the bus including the driver's area. The subfloor plywood and sub frame will be inspected for damage. Any damage found will be repaired or replaced as needed.~~

~~New flooring will be installed on all passenger areas, driver's area, ADA areas, entrance and exit door areas, and rear step treads. 2" standee lines will be installed to comply with ADA requirements and rear steps are to have new step tread nosing. All floor trim will be reused or replaced as needed and installed with new mounting hardware. Floor access panels will have new flooring installed and panel seats will be replaced with new.~~

~~6.02 INTERIOR SIDE PANELS, LIGHT PANELS & CEILING PANELS~~

~~The interior side panels, light panels, and ceiling panels will be inspected for damage. Damaged interior panels will be repaired or replaced as needed.~~

~~Ceiling panels will be cleaned. Interior light panels and side panels will be prepped sanded and painted to match the existing colors of the panels. Interior panel trim will be reused or replaced as needed.~~

6.03 DRIVER'S AREA, DASH, & RADIO BOX

The driver's area dash panels will be inspected for missing and non-repairable dash panels. Missing or damaged dash panels will be repaired or replaced as needed.

The front and side dash, driver's area and radio box will be inspected for damage. Any damage found will be repaired or replaced as needed, then prepped, primed, and painted satin black.

Flip down step installed in drivers' area.

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6.04 DRIVER'S DASH SWITCHES, GAUGES & MISC. COMPONENTS

All dash lights, switches, gauges, dash wiring, driver's hi/low beam, and turn signal foot switches and misc. components will be function tested. Missing or defective components will be repaired or replaced as needed. The speedometer will be replaced with new.

6.05 REAR BULKHEAD WALL, PLC DOOR & HVAC RETURN VENT PANEL

The rear bulkhead wall carpet will be replaced with new. Painted rear bulkhead wall panels, rear PLC door and the rear interior HVAC vent panel will be inspected for missing or damaged components. Missing or non-repairable components will be repaired or replaced as needed.

Once all repairs and replacements to the rear bulkhead wall panels, rear PLC door and HVAC vent are made. The panels will be prepped, primed, and painted to match the existing colors.

~~6.06 INTERIOR MODESTY PANELS & BARRIERS~~

~~Interior modesty panels and barriers will be inspected for missing or damaged components. Missing or non-repairable components will be repaired or replaced as needed.~~

~~Once the modesty panels are replaced and/or repaired, the modesty panels will be prepped, primed, and painted. Modesty panels will then be reinstalled with new hardware.~~

6.07 STOP REQUEST & PUBLIC ADDRESS SYSTEM

The stop request system will be inspected, and function tested. The chime cables and chime switches will be replaced with new. Any defective cable guides or switch brackets will be repaired or replaced as needed.

The public address (PA) system to include amplifier, interior speakers, exterior speaker, driver's microphone, speaker selector switch and volume level control switch will be inspected, and function tested. Any defective parts will be repaired or replaced as needed.

~~6.08 INTERIOR LIGHTS~~

~~All interior passenger aisle light florescent tubes will be replaced with new LED lights. All interior passenger light lenses will be replaced with new non-colored anti-glare lenses and new mounting hardware.~~

~~Entry and exit door lights will be replaced with new LED lights. The driver's area, fare box, and rear step lights will be replaced with new LED lights.~~

~~6.09 INTERIOR SUNSHADES, FIRE EXT, SAFETY TRIANGLES & MISC. COMPONENTS~~

~~Driver's side and front sunshades will be replaced with new scissor style sunshades. Fire extinguisher and road safety triangles will be replaced with new. Damaged interior mirrors or misc. components will be repaired or replaced as needed.~~

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7.00 WHEELCHAIR RAMP & ADA RESTRAINT SYSTEM

7.01 WHEELCHAIR RAMP SYSTEM

~~The wheelchair ramp system will be rebuilt and tested to ensure the ramp is working as designed.~~

Price to add front wheelchair ramp (same model as rear) and disable rear wheelchair ramp.

7.02 ADA RESTRAINT SYSTEM

The wheelchair restraints, lap belts, and shoulder belts will be replaced with new. All ADA required decals will be replaced with new.

8.00 EXTERIOR LIGHTS

8.01 EXTERIOR LED LIGHTS

Replace all exterior lights with new LED lights to include:

- Front, side, and rear marker lights
- Front, side, and rear turn signal lights
- Wheelchair ramp and kneel lights
- Rear brake lights, back-up lights, and license plate light

8.02 HEADLIGHTS

The front headlights will be replaced with new LED lights. Headlights will be adjusted, and new mounting hardware will be installed. All headlight bezels will be inspected for damage. Any defective bezels will be repaired or replaced as needed.

~~8.03 ENGINE COMPARTMENT LIGHTS~~

~~All engine compartment lights will be replaced with new high temperature LED lights.~~

9.00 DESTINATION SIGN SYSTEM

~~The destination sign system including ODK will be inspected, and function tested. Any defective components will be repaired or replaced as needed.~~

New Hanover destination signs. Specs to be provided by Fresno

10.00 ELECTRICAL SYSTEM

10.01 ELECTRICAL PLC & CONTROL PANELS

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All electrical controls, PLC panels, wiring harnesses and connectors will be inspected for missing components and damaged. Missing or damaged components will be repaired or replaced as needed.

Once all repairs or replacements have been made, the electrical system will be functionally tested and any inoperative relays, circuit breakers, and switches that require replacement will be repaired or replaced as needed.

The engine compartment electrical panel will be inspected for missing or damaged components. Missing or damaged components will be repaired or replaced as needed.

All engine compartment wire harnesses will be inspected and repaired to OEM specifications. After inspection and repairs are completed, high temp wire loom will be installed as needed. All engine compartment wire harnesses will be securely routed to prevent chaffing and heat damage.

All starter/alternator positive and negative cables will be replaced with new in the engine compartment. New cables will be securely routed to prevent chaffing and heat damage.

Engine door taillight wire harnesses will be inspected and repaired. The rear run box will have new gauges and switches installed.

10.03 BATTERIES

Batteries will be replaced with new. Main battery disconnect switch will be replaced with new. The battery hold down threaded rods, and tray rollers will be replaced with new. Cables from battery terminals to main disconnect switch will be repaired or replaced as needed.

The battery hold down blocks and the battery tray slide locks will be inspected for damage and repaired or replaced as needed. Cables from main disconnect switch to engine compartment terminal block will be inspected for damage and repaired or replaced as needed.

11.00 ENGINE COMPARTMENT

~~11.01 ENGINE COMPARTMENT INSULATION & PAINT~~

~~The engine, transmission, radiator & CAC, surge tank, all intake and cooling system piping and hoses, exhaust piping, HVAC compressor and rear run box will be removed from the engine compartment. All exposed structure and heat insulation will be inspected for damage. Any damage found will be repaired or replaced as needed. Once all required repairs are completed the engine compartment will be prepped and painted white.~~

~~11.02 ENGINE COMPARTMENT & HVAC COMPARTMENT HOSES & LINES~~

~~All hoses and flexible lines in the engine and HVAC compartments will be replaced with new. Hard copper and stainless-steel lines will be cleaned and inspected. Any damage found will be repaired or replaced as needed. All hard pipe insulation will be replaced with new.~~

12.00 FRONT AXLE & SUSPENSION

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12.01 FRONT HUB, WHEEL SPINDLE & KINGPIN HOUSING ASSEMBLY

Spindles and hubs will be inspected for damage. Any damage found will be repaired or replaced as needed. The kingpins, kingpin bushings and thrust bearings will be replaced with new. Hub bearings, cones, and hub seals will be replaced with new.

12.02 FRONT AXLE

The front axle will be inspected for cracks or other damage. Any damage found will be repaired or replaced needed.

12.03 FRONT AIR BAGS & SHOCK ABSORBERS

Air bag mounting plates and shock mount towers will be inspected for damage. Any damage found will be repaired or replaced as needed.

New air bags will be installed with new mounting hardware.

New shock absorbers will be installed with new rubber bushings and mounting hardware.

12.04 FRONT RADIUS RODS

Radius rods will be removed and inspected for cracks or damage. Any damage found will be repaired or replaced as needed. Radius rods will be treated to prevent corrosion, and all bushings will be replaced with new.

Non-serviceable radius rod bushings will be replaced with new assemblies.

13.00 POWER STEERING SYSTEM

~~**13.01 POWER STEERING PUMP & RESERVOIR**~~

~~The power steering pump will be replaced with new. The power steering reservoir filter and gasket will be replaced with new.~~

~~Power steering flexible lines in engine compartment will be replaced with new. (See section 11.02).~~

13.02 POWER STEERING GEARBOX

The power steering gearbox will be rebuilt to OEM rebuild specifications and will be reinstalled with new mounting hardware.

The steering miter box will be inspected for damage. Any damage found will be repaired and replaced as needed.

The steering shaft assembly will be inspected for damage. Any damage found will be repaired or replaced as needed. New u-joints will be installed on the steering shaft assembly, between the miter box and steering gearbox.

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13.03 STEERING LINKAGE

The left and right tie rod ends will be replaced with new. The tie rod tube assembly will be inspected and repaired or replaced as needed.

Sway-Bar bushings will be replaced with new.

The drag link socket ends, and clamp hardware will be replaced with new. The drag link tube assembly will be inspected and repaired or replaced as needed.

A complete wheel alignment will be performed to OEM specifications.

~~**13.04 STEERING WHEEL & COLUMN**~~

~~New u-joints will be installed on the steering column shaft. Steering column bearings and bushings will be replaced with new.~~

~~Steering column tilt mechanism and telescoping systems will be inspected for damage. Any damage found will be repaired or replaced as needed.~~

~~The steering column seal (on the floor) will be replaced with new.~~

~~The steering wheel, horn button, contact ring, and plunger will be replaced with new.~~

14.00 REAR AXLE & SUSPENSION

14.01 REAR AXLE

The entire rear axle will be removed from the bus and disassembled. The axle housing will be inspected for cracks or damage. Any damage found will be repaired or replaced as needed. Once any required repairs are completed the rear axle housing will be treated to prevent corrosion and painted.

The differential will be torn down and inspected for damage. Any damage found will be repaired or replaced as needed. Differential that pass inspection will be reinstalled with new seals. Hubs will be disassembled and inspected for defects. Hubs with cracks or other defects will be repaired or replaced as needed. All hub bearings, races, seals, and gaskets will be replaced with new.

Drive shaft U-joints will be replaced with new.

14.02 REAR TORQUE RODS

Upper and lower torque rods will be removed and inspected for cracks or damage. Any damage found will be repaired or replaced as needed. All torque rods will be treated to prevent corrosion, and all bushings will be replaced with new.

Non-serviceable torque rod bushings will be replaced with new assemblies.

14.03 REAR AIR BAGS & SHOCK ABSORBERS

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

Air bag mounting plates and shock mount towers will be inspected for damage. Any damage found will be repaired or replaced as needed.

New air bags will be installed with new mounting hardware.

New shock absorbers will be installed with new rubber bushings and mounting hardware.

15.00 AIR SYSTEM

15.01 AIR TANKS

All air tanks will be flushed, pressure tested, drained, and inspected for damage. Any damage found will be repaired or replaced as needed. Air tanks will have the following components replaced.

- Replace all single and double check valves
- Replace pressure regulator valves
- Replace air protection valves and safety valves
- Replace all defective air hoses, fittings, and related hardware
- Replace drain valves

15.02 AIR SYSTEM VALVES

The following air system components will be replaced:

- Suspension kneeling valves
- Front leveling valves assemblies and linkage
- Rear leveling valves assemblies and linkage
- Spring brake valve (SR-1)
- Parking brake control valve
- Pressure switches
- Double check valves
- Single check valves
- Brake interlock solenoid valves 24V
- Brake treadle (E-8P) valve assembly
- Pressure 4 PSI switches
- Front and rear ABS PMV valves

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- Quick release valves
- (R-12) 5.5 PSI relay valves
- Parking brake (R-14) relay valves
- ATC valves
- Repair or replace all damaged air hoses and fittings

15.03 AIR DRYER

The air dryer will be rebuilt and installed with new mounting hardware. Any damaged fittings and air hoses will be replaced as needed. The ping tank will be drained and inspected for any damage. Any damage found will be repaired or replaced as needed. Ping tank will be treated to prevent corrosion, painted and a new ¼ turn drain valve will be installed.

15.04 AIR COMPRESSOR

The D2 governor will be replaced with new.

16.00 FRONT & REAR BRAKES

16.01 AIR BRAKES

The front, and rear brakes will be rebuilt as follows:

- Replace "S" cams and "S" cam bushings with new
- Replace brake cam rollers and seals with new
- Replace slack adjusters with new
- Replace air chambers with new
- Replace brake linings with new
- Replace brake drums with new
- Replace all flexible brake airlines and fittings with new
- Replace all brake hardware and springs with new

16.02 SERVICE BRAKE TREADLE & VALVES

Brake treadle dual valve will be replaced with new. The brake interlock valve cluster will be rebuilt, and relay valve will be replaced with new.

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16.03 WHEELS & TIRES

Wheels will be inspected for cracks or damage. Any damage found will be repaired or replaced as needed.

Lug nuts and studs will be replaced with new.

Tires will be provided by FRESNO AREA EXPRESS

17.00 HEATING & AIR CONDITIONING

The exterior of the air conditioning condenser and evaporator will be inspected for damage. Any damage found will be repaired or replaced as needed. The condenser and evaporator will be washed with a cleaning solution. The evaporator will be flush through the interior of the bus.

The marine pump in the engine compartment will be repaired or replaced as needed. The defroster blower motor, control valve, and air filter will be repaired or replaced as needed.

Flexible hoses and insulation for the defroster will be replaced as needed.

New air filters will be installed in the evaporator unit.

Condenser and evaporator motors will be rebuilt. Brushless motors will be inspected, tested, and if found defective they will be repaired or replaced as needed.

Air conditioning compressor will be rebuilt, and a new clutch will be installed.

Control valves and relays will be repaired or replaced as needed.

A new filter drier will be installed.

The HVAC high and low-pressure flexible hoses will be replaced with new, as well as any other HVAC flexible hose. Copper tubing will be cleaned and inspected for damage. Any damage found will be repaired or replaced as needed.

The insulation on the AC tubing will be replaced with new.

The HVAC compressor drive belt, idler pulley bearing and tensioner will be replaced with new.

18.00 RADIATOR, CHARGE AIR COOLER (CAC), & SURGE TANK

~~18.01 RADIATOR & CAC~~

~~The radiator and CAC will be flushed, and pressure tested after replacement of radiator end cap gaskets. After the radiator and CAC are tested, the radiator will be prepped and painted to prevent corrosion. The Radiator and CAC package will be installed with new rubber isolation mounts, new mounting hardware and a new 1/4-turn drain valve.~~

18.02 RADIATOR SURGE TANK

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

The surge tank pressure relief valve, surge tank caps, low coolant sensors, and sight glass will be replaced with new. All surge tank cooling system flexible and silicone hoses and clamps will be replaced with new. The cooling system will be filled with OEM engine approved ethylene glycol anti-freeze with protection to -40 degrees Fahrenheit.

18.03 AIR INTAKE PIPING, HOSES, & FILTER

The air filter housing, and air intake pipes will be inspected for cracks and damage. Any damage found pipes will be repaired or replace as needed. The air filter, and air filter minder gauge will be replaced with new. All air intake hoses, seals and constant torque clamps will be replaced with new.

19.00 EXHAUST SYSTEM

The entire exhaust system will be inspected for cracks, damage, and defective components. Any damage or defective components will be repaired or replaced as needed. The flexible exhaust bellow pipe, exhaust pipe blankets, exhaust clamps, isolation mounts, and mounting hardware will be replaced with new.

20.00 ENGINE

20.01 CUMMINS CNG ENGINE

The engine and related components will be replaced with a Cummins ReCon CNG engine. The Cummins ReCon engine will include the following:

- Air compressor with new D2 air governor
- CNG engine oil and oil filters
- New starter and mounting hardware
- New fuel filters and new mounting hardware
- Rebuilt alternator, new regulator, and new mounting hardware
- New front and side rubber isolator mounts and new mounting hardware

20.02 THROTTLE CONTROL SYSTEM

The accelerator treadle will be replaced with new. A new throttle position sensor (TPS) will be installed that is compatible with the Cummins ReCon engine.

20.03 HOSES & LINES

All hoses and flexible lines in the engine compartment will be replaced with new. Hard copper and stainless-steel lines will be cleaned and inspected. Any damaged hard pipe sections in the engine compartment will be repaired or replaced as needed. All hard pipe insulation will be replaced with new. (See section 11.02).

21.00 TRANSMISSION

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

~~The transmission will be replaced with a rebuilt transmission. The rebuilt transmission will be installed with a new flex plate assembly and new flex plate hardware. The transmission starter ring gear will be inspected for damage or excessive wear. Defective ring gear will be replaced as needed. The rebuilt transmission will be installed with new flexible hoses (See section 11.02).~~

~~The transmission cooler will be flushed, and pressure tested. Defective transmission coolers will be repaired or replaced as needed. The transmission shift selector and TCM will be function tested. Defective components will be repaired or replaced as needed.~~

22.00 FUEL SYSTEM CNG TANKS, MOUNTS, & LINES

22.01 CNG TANKS

CNG tanks will be inspected for damage, rust, and leaks. Any damage found will be repaired or replaced as needed. Tanks will be re-inspected, and a new annual inspection sticker will be applied to each tank.

22.02 CNG TANK RACK ASSEMBLY & MOUNTS

The tank rack assembly, neck block mounts, rubber straps and rubber saddles will be inspected for damage. Any damage found will be repaired or replaced as needed.

22.03 CNG LINES

CNG lines, fittings, beta blocks and blow off caps will be inspected for damage or leaks. Any damage or leaks will be repaired or replaced as needed.

22.04 CNG REGULATORS, FILTERS, & VALVES

Primary and secondary canisters as well as the pressure regulator and quarter turn valves will be inspected for damage. Any damage found will be repaired or replaced as needed.

The following parts will be replaced with new:

- Primary and secondary filters will be replaced with new

22.05 CNG GAUGES & SWITCHES

High- and low-pressure gauges, proximity switches, fill receptacles and filler box assembly will be inspected for damage. Any damage found will be repaired or replaced as needed.

22.06 CNG TANK ACCESS DOORS (CLAMSHELLS)

The latches, latch catch pins, latch to handle cable and handles will be inspected for damage or defects. Any damage or defective components found will be repaired or replaced as needed.

The following parts will be replaced with new:

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

- Access door safety cable & hardware
- Foam seal
- Door hinge bolt pin and lock nut

23.00 GAS DETECTION SYSTEM

Gas detection system will be inspected for damage and function tested. Any damage found will be repaired or replaced as needed.

24.00 FIRE SUPPRESSION SYSTEM

24.01 FIRE SUPPRESSION SYSTEM

Fire suppression system will be inspected for proper operation. Fire suppression control module nozzles, nozzle caps, sensors, and piping will be inspected for damage. Any damage found will be repaired or replaced as needed.

24.02 FIRE SUPPRESSION BOTTLE

Fire suppression bottles will be inspected and refilled with new agent. The actuator will be replaced with new.

25.00 Farebox

CCW to install Fresno provided farebox.

Add Farebox per Section 25.00 on SOW

Fresno to supply All Parts & Components.

CCW purchase harnesses needed and will Install Supplied Parts & Components.

26.00 Bike Rack

Purchase and install Apex 3 bike rack and mounting brackets with “rack deployed light” in drivers’ area.

27.00 Register Vehicles

Vehicles will be registered by CCW prior to delivery

28.00 CAD/AVL

28.01 Install Fresno Supplied VONTAS V8 SYSTEM

Add Vontas V8 System CAD/AVL System per Section 28.01 on Sow.

SCOPE OF WORK FOR CITY OF FRESNO CCW REBUILT NEW FLYER 2013 C40LF BUSES

Fresno to supply All Parts & Components.

CCW purchase harnesses needed and will Install Supplied Parts & Components.

28.02 Install Fresno Supplied APC DILAX 210 WITH IRS-320R SENSORS

Add Dilax 210 Automatic Pass Counter per Section 28.02 on SOW.

Fresno to supply All Parts & Components.

CCW purchase harnesses and antennas needed and will Install Supplied Parts & Components.

28.03 (TSP) Traffic signal priority GTT 2100 computer and 4010 radio

Add Traffic Priority Signaling GT 2100 and 4010 Radio per Section 28.03 on SOW.

Fresno to supply All Parts & Components.

CCW purchase harnesses needed and will Install Supplied Parts & Components.

**SCOPE OF WORK FOR CITY OF FRESNO
CCW REBUILT NEW FLYER 2013 C40LF BUSES**

44.00 OPTIONAL SOW UPGRADE ITEMS

44.01 New Wheelchair Ramp Mfr.: _____ Ramp Model: _____

44.02 New Destination Sign Mfr.: _____ Dest. Model: _____

Hanover Destination Sign System

160x17 Full Color SMT 24V Sign, Front

112x15 Amber SMT 24V Sign, Side

48x15 Amber SMT 24V Sign, Rear

EG4 Controller - J1708, J1939

44.03 New Camera System Mfr.: _____ Camera System Model: _____

Safety Vision Camera System

Digital Video Recorder 4112-HVR-2TBNP

(8) High Definition Camera System: (1) AHD-H2.8M-BK, (5) AHD-H2.8MIR-WT, (2) 42-2.8IR-IP

44.04 New Automatic Vehicle Location (AVL) Mfr.: _____ AVL Model: _____