



BUS LINE INSPECTION PROPOSAL

City of Laredo - Special Project Request

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Introduction

As part of the current Transit Management Services Agreement between the City of Laredo and Hendrickson Transportation Group (HTG), the City of Laredo may request “Special Project” assistance under a separate contract and for an additional fee. HTG submits the following proposal to the City of Laredo for bus line inspection services as a special project request during the production of two (2) 29 ft. low floor CNG transit buses, four (4) 40ft. low floor CNG transit buses and thirteen (13) 35 ft. low floor CNG transit buses manufactured by Gillig, LLC in Livermore, California. HTG will provide production line inspection services and quality control during the manufacturing of the CNG low floor transit buses. Inspection services will be in accordance with 49 Code of Federal Regulations CFR Part 663 and to perform a Post-Delivery Audit as set forth in 49 Code of Regulations Part 663.37. HTG will ensure that each of the vehicles being procured is manufactured in compliance with 49 CFR Part 663, Pre-Award and Post-Delivery Audits of Rolling Stock Purchases.

HTG’s personnel possess the knowledge, expertise, skills, abilities and experience in the following areas: public transit, quality assurance techniques, quality control techniques, quality management planning, Buy America provisions, FTA vehicle purchase regulations, factory and field product inspection and acceptance testing, auditing and project management.

HTG will ensure compliance with the Manufacturer’s In-Plant Quality Assurance Program; observe all bus assembly operations and pre-delivery testing procedures prior to shipment to City of Laredo. HTG’s inspection efforts will include, but not limited to the following tasks:

- Detect and ensure the correction of any condition that might result in the production of deficient vehicle systems or assemblies. Review and comment on Manufacturer’s change to any part, assembly, or equipment, particularly as it may affect compliance with specifications, systems longevity, and/or maintenance costs.
- Review and comment to City of Laredo on all change order requests as part of a weekly communication during the bus build.
- Observe the Manufacturer’s inspection of the bus and their subassemblies and the monitoring of the tests.
- Develop checklists adhering to City of Laredo specifications for each vehicle type and all optional equipment and maintain inspection records for each bus including descriptions of articles that were rejected and resolution of identified deficiencies.
- Observe measured inspection on alignment, system operations and water leaks.
- Perform the FTA Buy America: Post-Delivery Audit, Pre-Delivery inspection as required and road test of completed vehicles and accept or reject the results. Pre-Delivery requirements must be submitted within one week of finished inspection.
- Authorize release of each bus to the vendor for shipment upon approval of all necessary corrections, followed by written or electronic notifications to City of Laredo when it occurs.

Audits and Reports

Buy America Audit:

HTG will perform all Pre-award Buy America audits. Elements of the Pre-award audit will include:

- Buy American Certification through an audit, prepared by someone other than the manufacturer, of the documentation provided by the manufacturer which lists:
- All components and subcomponents identified by the manufacture of the parts, their country of origin, and cost,
- The location of final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly,
- Purchaser's vehicle specification requirements certified by an audit that determines:
 - The rolling stock contracted for is the same product described in the specification,
 - The proposed vehicle manufacturer is a responsible manufacturer capable of producing the required vehicles,
 - A copy of the manufacturer's Federal Motor Vehicle Safety certificate.

Buy America Audit Report Requirements:

Reports shall contain a minimum of the following:

- Introduction: shall contain Buy America background and discussion of requirements, including any recent changes,
- Signature Pages: auditor's certification, inspector's certification, purchaser's Buy America certification, Purchaser's FMVSS certification,
- Methodology: shall contain discussion of how the audit was conducted,
- Certification: shall contain any necessary discussion about the vehicle and its compliance details, including a table of major components and subcomponents with compliance percentages,
- Inspection: shall contain a discussion of all visual inspections to be performed during the production, contain any inspector's notes or planning,
- Manufacturer /Supplier Buy America certification with complete vehicle parts listing and compliance percentages,
- Final Assembly: discussion and cost of final assembly process,
- FMVSS: manufacturer approvals and certifications.

Two (2) hard copies and one (1) digital/electronic copy of the Report shall be submitted to the City of Laredo.

In-Plant Quality Control Process

HTG will review and comment on all change order requests in written or electronic format to GETD. The inspectors will verify that any recommendation or changes for improvement were made. HTG will be responsible for acceptance testing and inspection of vehicles prior to delivery to the City of

Laredo. Written documentation of the performance testing shall be submitted to the City of Laredo. Any concerns, issues or failures will be documented as well as the correction made by the vehicle manufacturer.

Vehicle Inspection and Quality Assurance Inspection

HTG has listed the following vehicle production elements as critical:

- Monitor and evaluate critical buildup of components, including sidewalls, floor and roof structures,
- Visually verify joining of sidewall, roof and floor structures,
- Visually verify proper assembly and attachment of all body components,
- Visually identify and verify repair of any air and /or fluid leaks,
- Evaluate routing and dressing of lines, hoses, and wiring including their protection from abrasion, sharp edges and the installation of supports,
- Verify uniformity of components, installation and alignment of components,
- Verify critical adjustment of steering, steering column, and tie mechanism, slack adjusters, door operations, fan shroud clearances and belt tensions,
- Visually inspect alignment of access doors and hinges, floor covering, interior and exterior panels and moldings,
- Inspect proper thickness, type and adhesion of primers, paints and all coatings,
- Visually verify proper alignment and installation of engine mounting, suspension members and axle mountings,
- Inspect and ensure proper function of all installed systems and subsystems.

Ownership

All work performance and services by HTG under this agreement shall be the property of the City of Laredo. All reports, drawings, specifications, photographs and electronic data developed by HTG will be surrendered to the City of Laredo at the conclusion of this agreement or upon request.

Anticipated Build Schedule

The anticipated build schedule for this procurement is as follows:

- March 24, 2025, thru April 14, 2025
- Manufacture's Production hours are 5:00AM - 1:30PM, Monday – Friday.

*The build schedule is proposed and may change due to fluctuations in the manufacturing process or delays caused by the manufacture's suppliers.

Hendrickson Transportation Group
Bus Line Inspection
Services

PRICE PROPOSAL FORM

Price Per Bus	<u>\$1,663.47</u>
Total Price (19) Buses	<u>\$31,606.00</u>
Daily Price*	<u>\$1,436.64</u>
Weekly Price*	<u>\$7,183.18</u>

* Applies in event services are required due to Manufacturer production taking longer than the anticipated scheduled.

Joseph W. Neeb, City Manager
(Name and Title of Signatory)

(Signature) **(Date)**

**PRE-DELIVERY INSPECTION
OF
GILLIG COACHES**

VEHICLE ID

CHASSIS (VIN) # _____

Vehicle Summary Sheet

Bus Number	
Bus Fleet No	
Model	
Serial Number	
Online - Build Date	
Undercarriage Insp. 1 Date	
Undercarriage Insp. 2 Date	
Short Road Test Date	
Water Test Date	
Final Line Insp. Date	
Final Line Acceptance Date	
Final Line Inspector(s)	
Final Line Mileage (Dash)	
Final Line Mileage (Hub)	
Gillig Ship Date to Location	
Arrival Date	
Hub Mileage/Odometer Mile	
Delivery Accept. Insp. Date	

Serial Numbers – Check and verify recorded information in Gillig Logbook vs. actual items installed on the Bus Record.

Item	Manufacturer & Model No.	Serial Number
Engine		
Engine ECM		
Transmission		
Transmission ECU		
Air Cond. Unit		
Air Cond. Compressor		
Front Axle		
Rear Axle		
Farebox		
Integrated Vehicle Logic Unit (Siemens- Box)		
Mobile Data Terminal (TransitMaster- Dash)		
Radio		
Modem (Motorola VRM500)		
DR-600		
Operator Control Unit (Digital- Dash)		
Front Destination Sign		
Side Destination Sign		
Dash Sign		
Wheelchair Lift		

**COPY SERIAL NUMBER LOG AND INSERT IN THIS
BOOK**

Item	Lower/Underside Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
1	Front Axle including Suspension Rods and Air Bellows, Steering, King Pin, Wheel-Bearing, Hyd. Hose & Air Line interference issues, Clamps, fittings for Grease and all fasteners.				
2	Sway Bar, Shackles & Shocks – check for proper installation and seating of bushings & fasteners.				
3	Kneeling Function – Check Fast Fill and Slow Fill operation, leveling valve and the system for leaks.				
4	Wheelchair Lift - Check lines, hoses, cables, and wiring for proper clamping and interference issues. Check all mechanical items and fasteners. Check for leaks, proper attachment of covers and secure compartments.				
5	Undercoating – Ensure all areas of the undercarriage that require undercoating are covered. Items that should no have undercoating (air Valves) must also be checked.				
6	Moldings, Bumpers & Mud Flaps – Check for proper attachment.				
7	Lug Nuts & Wheel Rims – Check for proper installation.				
8	Brake – Inspect Chambers, Slack Adjusters, Brake Strokes & Brake Linings				
9	Rear Axle including Suspension Rods, Air Bellows, Leveling Valves, Welding, Fasteners, Vent and housing gaskets and seals for leaks. Check Shock Absorbers & Bushings for proper seating.				
10	Drive Shaft – Check for proper Phasing and installation of grease fittings.				
11	Air System – Inspect all Hoses & Fittings and Brake System Air Valves. Check for leaks and interference issues.				
12	Air Tanks, Check Valves & Air Dryer Check for proper operation of check valves for filing tanks in sequence and bleed-back. Check pressure settings on Interlock regulator valves. Check system cut out and Dryer release valve.				
13	Frame, Cross-members & Brackets				
14	Fuel Tank - Inspect straps & rubbers, supports, brackets, lines, hoses and fittings				
15	Engine Area – Check for fluid leaks, hose & wiring/cable interference issues, Engine/Transmission mounting, component mounting, etc				

Record Tire Brand and inflation

Tires

Location	Tire Brand	Air Pres.
RF		
LF		
LRI		
LRO		
RRI		
RRO		
SPARE		

ROAD TEST

Road test shall include left/right turns, road dips, (variety of road surfaces), and street operation.

Test shall not be less than five (5) miles.

Item	Road Test/Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
1	Verify steering “free play” (2 3/4" max.)				
2	Verify turning effort (5 turns max. - lock to lock)				
3	Verify operation of steering wheel “tilt” function				
4	Verify operation of steering wheel “raise/lower” function.				
5	Verify proper fluid levels.				
6	Verify adequate fuel supply.				
7	Verify function of speedometer				
During test, observe for abnormalities:					
8	Ride				
9	Steering				
10	Coach Handling				
11	Brake Operation				
12	Driver’s Seat (maintains adjustment)				
13	Mirrors				
14	Vision				
15	Parking Brake Function: Verify dashboard indicator light function Verify no vehicle movement				
16	Verify operation of accelerator & brake interlocks Verify with doors open/unlocked				
17	Verify operation of “stop” lamp on dash				
18	RESONANCE: Absence of audible, visible or sensible resonate vibrations. (Record any rattles & vibrations within the coach over the course of the road test. Be sure to identify the source, coach speed & road surface detail.) Vibration: Rattles:				

Item	Road Test/Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
19	<u>ACCELERATION TEST</u> 20 MPH. _____ Sec. 40 MPH. _____ Sec.				
20	<u>BRAKE EFFICIENCY TEST</u> SERVICE BRAKE: _____ ft. @ _____ MPH. PARKING BRAKE: _____ ft. @ _____ MPH.				
21	<u>SHIFT POINTS</u> 1 ST – 2 ND @ _____ MPH. 2 ND LOCKUP @ _____ MPH. 3 RD @ _____ MPH. 4 TH @ _____ MPH. 5 TH @ _____ MPH.				

Item	Road Test/Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
22	RETARTER LIGHT: RETARTER WORKING: RETARTER DISABLE WORKING				
23	Interior climate control: A/C on heating system as maintain interior temperature at 68 degrees require to (+5 / - 2) nominal (80 degrees max.) Record coach interior temperature _____ Record outside ambient temperature _____				
24	A/C output temperature as measured from the “driver’s fan” port: located above and to the rear of the driver’s position. NOTE: Driver’s fan must be in “OFF” position. Output temperature: _____ <i>NOTE: Measure after approximately five (5) minutes of driving time. A/C compressor clutch engagement can only occur below approximately 900 engine RPM.</i>				
POST ROAD TEST INSPECTION					
25	Allow engine to idle in gear for two (2) minutes. Shut down and check for fluid leaks under coach and in engine compartment.				
26	Verify engine/transmission, coolant & hydraulic oil quantities unchanged from initiation of road test				

Water Test

[illegible]

Item	Final Line Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
EQUIPMENT FUNCTION CHECK					
Operate all switches and controls from Drivers Area to ensure equipment functions correctly.					
DRIVER CONTROL FUNCTION					
	OFF: All electrical systems off excluding interior lights, stoplights, turn signals, hazard lights, silent alarm, horn & fare box. Place master switch on OFF position, verify all circuits off, excluding those specified.				
	CL/ID (Park Mode): All electrical systems off, excluding interior lights stoplights, turn signals, hazard lights, horn, fare box, radio & marker lights. Place master switch in "CL/ID" position; verify all systems off excluding those specified to remain "on".				
	NIGHT/RUN: All electrical systems & engine on: Place master switch in NIGHT/RUN position; Verify all electrical systems on engine operate. Verify function on passenger chime "Stop Request", sign, horn, high-low beam, fast idle, diagnostic light panel test.				
	THROTTLE CONTROL: START (FRONT) FRONT (ACCEL. PEDAL) FRONT (FAST IDLE ENGAGEMENT) VERIFY "ENGINE TEST" OPERATION				
	INTERIOR – DASHBOARD Does design and layout conform to specification? Switch on: Verify that lamps are illuminated according to indications on switch(es) Verify gauge operation - front: <div style="display: flex; justify-content: space-between;"> Oil Pressure Voltmeter </div> <div style="display: flex; justify-content: space-between;"> Coolant temperature Air PSI Gauge </div> <i>NOTE: Gauges are not to be erratic. They should operate in a smooth steady manner</i>				
	Verify fare box mounting and location				
	Verify fare box operation				

Item	Final Line Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
LIGHTING:					
1	Operate interior lighting with engine “off”. Power supplies (“ballast”) inaudible. Switch all interior lights on: Verify all bulbs illuminated by appropriate switch Verify un-audibility of power supplies.				
2	Stop Lights				
3	Marker & Run Lights				
4	Reverse Lights				
5	Directional & Hazard Lights				
6	Verify internal & external courtesy lamps operate with doors open				
7	Test Instrumentation Indicator Lights for High Headlamp Beam, Right Turn Signal, Left Turn, Hazard, Warning, Stop Request, Door Open, Service Brakes Applied, Parking Brake Applied, Kneel and Wheelchair Lift.				
8	Test circuit of indicator lamps audible warning device by energizing appropriate switch.				
9	Test Onboard Diagnostics				
10	Set signs at various destinations and verify route numbers. Verify that inside reading and outside reading agree. Front Signs Side Sign Rear Signs				
11	Verify operation of windshield wipers, including intermittent function. Verify operation of windshield washer.				
12	EXIT SIGNAL - Audible stop signal Verify function of chime by activating from random areas of the interior. (WC Seating Area shall have a different sound) Verify proper operation of “Stop Request” lamp/dashboard indication.				
13	DRIVERS SIDE WINDOW FOR OPERATION Sliding window section at driver’s left: Verify function of sliding section (Both Sections)				

Item	Final Line Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
AIR SYSTEM					
14	Verify air system build-up				
15	Low air indicator/alarm function Alarm cut off _____ PSI				
16	Air Governor Cut-out _____ PSI				
17	Air Dryer unit cycle _____ PSI				
18	Shut down engine and bleed air to "0" reading on gauge. Start engine - NOT on Fast Idle Note time of air pressure build-up to governor cut out _____Min. _____Sec.				
19	<div> <div> AIR PRESSURE LEAKDOWN TEST No Application – 2 psi max per minute Application – 3 psi max per minute </div> <div> START Red _____psi Green _____psi </div> <div> FINISH Red _____psi Green _____psi </div> </div>				

Item	Final Line Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
TRANSMISSION					
20	<p>Verify shift from neutral to all functions:</p> <p>N - R - N *</p> <p>N - D - N</p> <p>N - 3 - N</p> <p>N - 2 - N</p> <p>N - 1 - N</p> <p>* For N - R - N check, turn on interior lights. Lights should extinguish when “R” is selected and re-light when “N” is selected.</p>				
21	Verify Neutral Safety Switch				
22	An audible beep should be heard each time a gear position is selected.				
23	Verify external back-up alarm operation when “R” (Reverse) is selected.				
24	<p>Verify that transmission shifts to “N” (Neutral) when:</p> <p>Master switch is turned “off” until engine stops then turned to:</p> <p>DAY RUN POSITION</p> <p>NIGHT RUN POSITION</p>				
25	Verify “TRANS TEST” operation				
26	Verify Transmission will remain in Neutral when Rear throttle control switch selected to “Rear” Operation.				
RUN NUMBER BOX:					
27	Illumination: “NIGHT RUN” & “CL-ID (PARK)” position on master switch.				

Item	Final Line Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
A/C HEATING SYSTEM:					
28	VERIFY SYSTEM FUNCTIONS: Heat - Vent - Cool Cycles Hi - Lo ventilation Blower Auxiliary coolant heater – Hybrid only Proheat X 45 (SS in air tank closeout) Driver's Fan Defroster (operation & effectiveness)				
29	Driver's Heater				
30	A/C System Compressor Clutch engagement with engine in "fast idle" position.				
WHEELCHAIR LIFT:					
31	In order to obtain power to operate lift unit the following criteria MUST BE SATISFIED: <i>Master switch must be in "DAY" or "NIGHT" run position and the engine must be running. Coach must be standing - brake interlock "ON". The front door pressure valve must be "ON". There must be a minimum of 80-PSI air pressure to the front door. The door control valve must be in the forward (Front door open) position. Front door must be fully opened & pressure held. The lift power switch must be "ON".</i> <i>Bus must be kneeled.</i> A "NO" ANSWER TO ANY OF THE ABOVE WILL CAUSE "REJECT" NOTATION.				
32	Operate Lift and verify lift functions in all modes.				
33	Check platform for binding, alignment.				
34	Check rising floor assembly height and stow proximity switch function.				
35	Verify interlock function.				

Item	Final Line Inspection	Accepted	Insp.	Reject	Re-Inspection & Acceptance (Date/Insp.)
KNEEL:					
36	<p>In order to operate coach, kneel device, the following criteria MUST BE SATISFIED:</p> <p>Master switch must be in “DAY” or “NIGHT” run position and the engine must be running. Coach must be standing – brake interlock “ON”. The front door pressure dump valve must be “ON”. There must e a minimum of 80 PSI air pressure to the front door. The door control valve must be in the forward (front door open) position.</p>				
37	Verify kneel operation.				
DOOR CONTROL OPERATION					
38	<p>Verify Door Control</p> <p>Front Open/Rear Unlock Front Open All Closed Rear Unlocked Rear Unlocked/Front Open</p> <p>Cycle Doors Front Fully opened position Fully closed position</p> <p>Cycle Doors – Rear Push open Spring Closed Operate w/emergency release pulled (Front door)</p> <p>Opening / Closing Times</p> <p>_____ Seconds</p> <p>NOTE: Should not be more than 1.5 Seconds Front door must not slam to open/closed position or stick in operation.</p>				

Item	Final Line Inspection	Accepted	Insp.	Reject	Re- Inspection & Acceptance (Date/Insp.)
ENGINE COMPARTMENT					
39	REAR RUN BOX Test rear run switch Verify gauge operation Oil pressure Coolant Temperature Voltmeter <i>NOTE: Gauges are not to be erratic. They should operate in a smooth steady manner</i>				
40	Verify jumper cable connection				
41	<u>Check For:</u> OIL LEVEL OIL LEAKS FUEL LEAK COOLANT LEAKS START (REAR) EXCESSIVE SMOKE? BLOW-BY?				
42	Check for hose, line, wiring & cable rubbing and interference issues, Engine/Transmission mounting, component mounting, etc.				
43	Verify Radiator, Fan and Surge Tank Mounting.				
44	Particulate Filter Installation				
45	Heater Control Shut off valves				

					Re-Inspection & Acceptance (Date/Insp.)
Item	Final Line Inspection	Accepted	Insp.	Reject	
BODY					
46	INTERNAL PANEL FASTENING				
47	Verify all hatches, covers Grab Rails and Stanchions are securely fastened.				
48	Absence of rough edges on surface on panel, moldings, stanchions & standee rails.				
49	Modesty panel(s) drumming				
50	Side panels securely fastened. Check for fit & finish <i>(Note exact location(s) of problem areas)</i>				
51	Verify emergency escape window operation				
52	Verify roof mounted escape hatch/ vents: Operation as vents Operation as escape hatch Verify hatch cover hinged at front when escape latch tripped				
53	Verify location of interior advertising racks				
54	Verify location of specified timetables-notice holder.				
55	Verify seat condition & mounting to specification.				
56	Verify operation of Operator Seat.				
57	Verify operation of all “tilt-up” seats & Wheelchair accessible seating.				
58	Verify operation of wheelchair passenger seat belts and restraint belts.				
59	Verify ADA required 48x30 clear floor space requirement				
60	Verify hip to knee measurements per specifications.				
61	Handicap decals - over wheelchair seat locations.				
62	“NO EATING - SMOKING - RADIO” location at front/center over rear-view mirror.				
63	“EMERGENCY ESCAPE” plates (all seat backs and modesty panels).				
64	Coach fleet number measures 2" Location on front bulkhead to right of stop request sign.				
65	Routing of passenger chime pull cord: (Should be level and not rub on ANYTHING) Curbside Roadside				

Item	Final Line Inspection	Accepted	Insp.	Reject	Re- Inspection & Acceptance (Date/Insp.)
66	Verify door fit (Doors should not scrape on coach body or floor) Front: Rear:				
67	Verify all engine and lower compartment doors can be secured in “closed” position				
68	Verify all lower compartment and engine compartment doors will remain in “up” position when raised.				
69	Verify integrity of all sash and glazing.				
70	Verify exterior paint and body condition.				
71	Verify Fire Suppression System installation.				

2025 Gillig Bus Plant - Final Line Inspection / SIGN-OFF:

[illegible]

