

## Section 7: Application Scoring Matrix

Score Assigned	Attachment	Attachment Description
10	A	<b>Mitigation Action Description:</b> Related to Maine's Beneficiary Mitigation Plan
20 Avg 85%	B	<b>NOx Emission Reduction:</b> NOx emission reductions estimate using EPA's Diesel Emission Quantifier
10	C	<b>Health Benefits:</b> Maximized health benefits include: reductions in particulate matter and/or greenhouse gases; net reduction of diesel fuel use; or idle reduction strategies.
10	D	<b>Action Location:</b> Within an area with a disproportionate quantity of air pollution from diesel fleets, such as ports, rail yards, terminals, <u>school</u> depots/yards, and freight distribution areas.
10	E	<b>Class 1 Areas:</b> Benefits a designated federal Class 1 Area, specifically Acadia National Park, Roosevelt Campobello International Park, or the Moosehorn Wilderness Area located within the Moosehorn National Wildlife Refuge Area.
10 175,464 - 43,866 = \$131,598 REQ	F	<b>Verified Funding:</b> Match or leveraged funding for cost sharing secured. Budget provided.
10	G	<b>Action Schedule:</b> Action implemented within two years of the award date. Schedule provided.
10	H	<b>Benefit Period:</b> Sustained emission benefits over the ten-year Trust Effective Period. Maintenance plan provided.
10	I	<b>Relevant Experience and Compliance Certification:</b> Existing administration and programmatic structure in place to implement diesel emission reduction or offset actions.

**Gates, Judy**

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**From:** Kirsten Goff <kgoff@sebagolearners.org>  
**Sent:** Friday, September 14, 2018 12:24 PM  
**To:** Gates, Judy  
**Subject:** VW Grant Application  
**Attachments:** Maine-VW-D-2-application-062118-7.docx

Hello Judy,

I am submitting our VW Grant application via email directly to you and am sending a paper copy via mail as well. If you need this submitted in a different manner, please let me know.

--

Sincerely,

Kirsten Goff, Principal  
Sebago Elementary School  
283 Sebago Road  
Sebago, ME 04029  
(207)787-3701 ext. 203  
fax (207)787-2472  
email: [kgoff@lakeregionschools.org](mailto:kgoff@lakeregionschools.org)

*"All your dreams can come true if you have the courage to pursue them." Walt Disney*



# MaineDOT

(For MaineDOT Use Only)

Date Application

Received

9/14/2018

Beneficiary's Project ID  
23901.10

Funding Request #

22

## Maine Volkswagen Environmental Mitigation Action Round 1 Application for Appendix D-2 Eligible Actions

- All applications for Round 1 funding are due by **September 15, 2018**.
- A fillable **application template** is available at [www.maine.gov/mdot/vw/application](http://www.maine.gov/mdot/vw/application)
- Use the **list of attachments** in Section 3 to ensure that your application is complete.
- **Funding** approvals for action(s) may be whole or partial.
- A **timeline** for Maine's Round 1 application process can be found at [www.maine.gov/mdot/vw/application](http://www.maine.gov/mdot/vw/application).
- For information on Maine's Diesel Emission Reduction Act (DERA) Program, go to <http://www.maine.gov/dep/air/mobile/cleandiesel.html>.
- For information on Zero Emission Vehicle Supply Equipment (ZEVSE), go to [www.efficiencymaine.com](http://www.efficiencymaine.com).
- Submit any **questions** through the website at [www.maine.gov/mdot/vw/application/faqs](http://www.maine.gov/mdot/vw/application/faqs).
- Information on the **current base price** for Maine school buses can be found at <http://www.maine.gov/doe/transportation/programs/buspurchase.html>

### Section 1: General Information

Action Title: Sebago School Department Bus Replacement			
Action Location: Town/Territory: Sebago		County: Cumberland	
Type of Action: Repower: <input type="checkbox"/> Replacement: <input checked="" type="checkbox"/>			
Action Proponent: Marc Gendron, Superintendent			
Action Proponent Mailing Address: 283 Sebago Road			
City: Sebago	State: ME	Zip: 04029	County: Cumberland
Daytime Phone: (207)787-3701	Alternate Phone: (207)787-3707		Email: mgendron@sebagolearners.org
Authorized Agent (if different from Action Proponent):			
Authorized Agent Mailing Address:			
City:	State:	Zip:	County:
Daytime Phone:	Alternate Phone:		Email:

## Section 2: Eligibility Criteria

The following categories are **eligible mitigation actions** pursuant to Appendix D-2 of the Environmental Mitigation Trust Agreement ([https://www.maine.gov/mdot/vw/app/Maine\\_VW\\_Eligible\\_Mitigation\\_Actions\\_1-8.pdf](https://www.maine.gov/mdot/vw/app/Maine_VW_Eligible_Mitigation_Actions_1-8.pdf)) and reflect basic eligibility criteria for consideration under this program. See Maine's Beneficiary Mitigation Plan ([www.maine.gov/mdot/vw/BMP\\_final\\_2-12-18.pdf](http://www.maine.gov/mdot/vw/BMP_final_2-12-18.pdf)) for details on eligibility. Check all that apply. Leave checkboxes blank for actions that don't apply. List individual vehicles or equipment using the table on the following page.

Check all that apply	Eligible Mitigation Actions
<input type="checkbox"/>	<b>1992-2009 engine model year Class 8 Local Freight Trucks and Port Drayage Trucks</b> repowered with any new diesel or alternate fueled engine or all-electric engine, or replaced with any new diesel or alternate fueled or all-electric vehicle, with the engine model year in which the eligible large trucks mitigation action occurs or one engine model year prior.
<input checked="" type="checkbox"/>	<b>2009 engine model year or older Class 4-8 school buses, shuttle buses, or transit buses</b> repowered with any new diesel or alternate fueled or all-electric engine, or replaced with any new diesel or all-electric vehicle, with the engine model year in which the eligible bus mitigation action occurs or one engine model year prior.
<input type="checkbox"/>	<b>Pre-Tier 4 freight switcher locomotives that operate 1000 or more hours per year</b> repowered with any new diesel or alternate fueled or all-electric freight switcher certified to meet the applicable EPA emissions standards or other more stringent equivalent state standard.
<input type="checkbox"/>	<b>Unregulated, Tier 1 or Tier 2 marine engines on ferries or tugs</b> repowered with Tier 3, Tier 4, alternate fueled, or all-electric engine, or upgraded with an EPA certified remanufacture system or an EPA verified engine upgrade.
<input type="checkbox"/>	<b>Marine shore power systems or components of such systems</b> that enable a compatible vessel's main and auxiliary engines to remain off while the vessel is at berth. Components eligible for reimbursement are limited to: cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution. Subject marine shore power systems comply with international shore power design standards (ISO/IEC/IEEE 80005-1-2012 high voltage shore connection systems or the IEC/PAS 80005-3:2014 low voltage shore connection systems) and are supplied with power sourced from the local utility grid.
<input type="checkbox"/>	<b>1992-2009 engine model year Class 4-7 local freight trucks</b> repowered with a new diesel, alternate fueled, or all-electric engine, or replaced with any new diesel, alternate fueled, or all-electric vehicle, with the engine model year in which the eligible medium trucks mitigation action occurs or one engine model year prior.
<input type="checkbox"/>	<b>Tier 0, Tier 1, or Tier 2 diesel powered airport ground support equipment; and uncertified or certified to 3 g/bhp-hr or higher emissions spark ignition engine powered airport ground support equipment</b> repowered with an all-electric engine, or replaced with the same airport ground support equipment in an all-electric form.
<input type="checkbox"/>	<b>Forklifts with greater than 8000 pounds of lift capacity and port cargo handling equipment</b> repowered with an all-electric engine, or replaced with the same equipment in an all-electric form.

**Vehicles & equipment proposed for replacement or repower  
under this Eligible Mitigation Action.**  
(Leave fields blank that do not apply)

<b>Current Vehicle Class</b>	<b>Current Tier (if applicable)</b>	<b>Current Model</b>	<b>Current Model Year</b>	<b>Mileage</b>	<b>Current Fuel Type</b>	<b>Proposed Fuel Type</b>	<b>Associated equipment</b>
6		Thomas	2008	229,885	Diesel	Diesel	79% 1134838.75
6		Freightliner	2005	231,359	Diesel	Diesel	89.6% 230121635.43

### Section 3: Action Overview and Instructions

The following information provides the reviewers with background on the proposed action and will be considered as part of final decisions on what actions are funded in any given year. If an attachment is not applicable to the proposed action, that action is not disqualified from funding; however, Action Proponents are encouraged to provide accurate and concise answers to as many questions as possible and note why an attachment is not relevant to their proposal.

Check if attached	Scoring (for MaineDOT use)	Attachment	Attachment Description
<input checked="" type="checkbox"/>		A	<b>Mitigation Action Description:</b> Attach a no more than two-page narrative describing the action and how it relates to Maine's Beneficiary Mitigation Plan and label as "Attachment A".
<input checked="" type="checkbox"/>		B	<b>NOx Emission Reduction:</b> Estimate the NOx emission reductions from the action in terms of dollar per ton of NOx using EPA's Diesel Emission Quantifier found at <a href="https://cfpub.epa.gov/quantifier/index.cfm?action=main.home">https://cfpub.epa.gov/quantifier/index.cfm?action=main.home</a> or for heavy-duty vehicles: <a href="http://afleet-web.es.anl.gov/hdv-emissions-calculator/">http://afleet-web.es.anl.gov/hdv-emissions-calculator/</a> . Attach a <u>separate</u> summary calculation worksheet generated by the Quantifier for <u>each</u> vehicle or piece of equipment and label as "Attachment B".
<input checked="" type="checkbox"/>		C	<b>Health Benefits:</b> Describe any health benefits <u>maximized</u> by the action <u>beyond</u> calculated NOx emission reductions as "Attachment C". Examples of maximized health benefits include: reductions in particulate matter and/or greenhouse gases; net reduction of diesel fuel use; or idle reduction strategies.
<input checked="" type="checkbox"/>		D	<b>Action Location:</b> As "Attachment D", indicate whether the action will occur in an area with a disproportionate quantity of air pollution from diesel fleets, such as ports, rail yards, terminals, school depots/yards, and freight distribution areas.
<input checked="" type="checkbox"/>		E	<b>Class 1 Areas:</b> Using the maps found at <a href="https://www.maine.gov/dep/air/meteorology/class1">https://www.maine.gov/dep/air/meteorology/class1</a> , note the location of the proposed action to indicate whether it will benefit a designated federal Class 1 Area, specifically Acadia National Park, Roosevelt Campobello International Park, or the Moosehorn Wilderness Area located within the Moosehorn National Wildlife Refuge Area. Include the map as "Attachment E".
<input checked="" type="checkbox"/>		F	<b>Verified Funding:</b> As "Attachment F", verify that the action has secured funding for cost sharing or leveraging by providing a commitment letter or signed agreement from a financial institution or budget committee for cost share or leveraged funding. Also, using the template in Section 4 of this application, include a general project budget indicating the amount of match to be provided by the Action Proponent.
<input checked="" type="checkbox"/>		G	<b>Action Schedule:</b> The action must be implemented within two years of the award date. Using the template provided in Section 4 of this application, provide schedule and major milestones, labeled as "Attachment G".
<input checked="" type="checkbox"/>		H	<b>Benefit Period:</b> The action must result in sustained emission benefits over the ten-year Trust Effective Period. Provide a concise description of how benefits will persist through 2027 and a maintenance plan for eligible vehicles/equipment funded under this program as "Attachment H".
<input checked="" type="checkbox"/>		I	<b>Relevant Experience and Compliance Certification:</b> By signing provisions in "Attachment I", the Action Proponent and Authorized Agent (if applicable) verify that there is existing administration and programmatic structure in place to implement diesel emission reduction or offset actions.



## Section 4: Templates for use in Attachments F, G and I.

Under this program, there is a minimum cost share or leverage funding requirement for non-government and government Action Proponents. Cost shares may consist of municipal, state, federal, or non-VW Environmental Mitigation Settlement private funds. Cost shares for non-government Project Proponents were established by the U.S. District Court in the Environmental Mitigation Settlement and vary per the scope and category of the proposed action. A summary of cost share requirements for non-government Action Proponents can be found in Maine's Beneficiary Mitigation Plan and at [https://www.maine.gov/mdot/vw/app/Maine\\_VW\\_Eligible\\_Mitigation\\_Actions\\_1-8.pdf](https://www.maine.gov/mdot/vw/app/Maine_VW_Eligible_Mitigation_Actions_1-8.pdf). Government Action Proponents for Maine's VW Environmental Mitigation Settlement funds are required to provide a 20% cost share. However, Action Proponents may choose to contribute more than the minimum amount required as a demonstration of the local commitment to the proposed action. Bonus consideration may be given to applications that offer additional cost sharing or leverage funding beyond any required.

### ATTACHMENT F

*As part of Attachment F, include a letter of commitment for balance of base price of vehicle or equipment from a financial institution or authorized financial administrator. Also, complete the following table.*

Budget Summary		
1	Total Estimated Cost of the Proposed Action	\$175,464
2	Minimum required cost share or leverage funding for this action  Percentage: 25%  Source: Sebago School Department	\$43,866
3	Actual cost share and cost overage committed by the Action Proponent (may include local funding, grants awarded, contributions, etc.)  Percentage: 25%	\$43,866
4	Funds requested from Maine's VW Environmental Mitigation Settlement	\$131,598

**Note:** The total of the funds requested from Maine's VW Environmental Mitigation Settlement funds plus the actual non-VW cost share or leveraged funding committed by the Action Proponent must equal the total estimated cost of the proposed project identified on line F-1.

**Note:** The standard fund distribution for selected actions will consist of the cost share or leveraged funding delivered prior to transfer of committed Maine VW Environmental Mitigation Settlement funds, which **will be paid upon proof of completion of the action or vehicle delivery.**

## ATTACHMENT G

The milestones included in this template are provided as guidance. Action Proponents may substitute other milestones that suit their purpose.

Projected Action Schedule	
Milestone	Estimated Date
MaineDOT Requests Round 1 Proposals for Actions to be funded by VW Environmental Mitigation Settlement	6/9/18
Action Proponent or Agent Submits Proposal to MaineDOT	9/15/18
MaineDOT Provides Written Approval of Action Proponent's Proposal	10/15/18
Action Proponent Enters Contract with MaineDOT	10/31/18
MaineDOT verifies funding approval by incorporating Action into Maine Beneficiary Mitigation Plan	10/31/18
Trustee Acknowledges Receipt of Project Certification and Funding Direction	11/30/18
Action Proponent Obtains Cost Share, Notifies or Certifies to MaineDOT	12/15/18
Action Installation(s)/Delivery	1/1/19
Submit Proof of Delivery or Work Completed to MaineDOT by providing copies of the vehicle title and receipt for vehicle, equipment, or service.	1/30/19
Submit Proof of Scrapping of Replaced Vehicle or Engine to MaineDOT	1/30/19
MaineDOT Remits Committed Funding to Action Proponent	6/1/19
Due date of first Status Report and Maintenance Record to MaineDOT (six months after funding award)	6/30/19
MaineDOT Reports Action Completion to Trustee	6/30/19



## Appendix A

Our action is to replace one or two of our buses with one or two new buses that will be safer for our students, more efficient, will provide for lower NOx emissions, and health benefits for our students.

We are a brand-new school district that has just withdrawn from a larger district. As part of the withdrawal negotiations, we received two older buses that are part of this application. These buses are in dire need of replacement. They are not inspectable in the future. I cannot, in good conscience, place children on these busses beyond the current school year.

Our goal is to create and maintain a modern, safe, and environmentally progressive fleet of busses to support the transportation needs of our district. We will reach this overarching goal by:

1. Executing significant and sustained cost-effective reductions in NOx emissions;
2. Improve and protect ambient air quality.

8/14/2018

Use Trip Quadrant: Diesel Emissions Quadrant | National Clean Diesel | US EPA

## Group Name: Sebago

Type Onroad Target School Bus Class or Equipment Buses Quantity 1	Engine Model Year 2008 Upgrade Year 2019 Remaining Life 8	Fuel Type UL8D Annual Fuel Gallons 1,842 Annual Miles Traveled 7,000 Annual Idling Hours 300
2008-2008	2008-2019	Delta

### Upgrades to Sebago

Action	Upgrade	New Model Year	Annual Gallons Reduced	Cost per Unit		Percent Reduction				
				Upgrade	Labor	NO <sub>x</sub>	PM <sub>2.5</sub>	HC	CO	CO <sub>2</sub>
Delta	Vehicle Replacement - Diesel	2019	803	\$82,732	\$0	78.1	47.4	55.4	55.4	-

## Group Name: Sebago

Type Owned Target School Bus Class or Equipment School Buses Quantity 1	Engine Model Year 2005 Upgrade Year 2019 Remaining Life 5	Fuel Type ULSD Annual Fuel Gallons 1,642 Annual Miles Traveled 7,000 Annual idling Hours 360
Delete		

### Upgrades to Sebago

Action	Upgrade	New Model Year	Annual Gallons Reduced	Cost per Unit		Percent Reduction				
				Upgrade	Labor	NO <sub>x</sub>	PM <sub>2.5</sub>	HC	CO	CO <sub>2</sub>
Delete	Vehicle Replacement - Diesel	2019	603	\$82,732	\$0	88.6	98	91.4	91.2	-

## Attachment C Health Benefits

1. New school bus idling policy adopted to help mitigate the effect of emission issues in areas that receive a disproportionate quantity of air pollution.
2. Emission results and health benefits for project: VW Grant.

### **School Bus Idling Policy**

**School District Name: Sebago School Department**

**Policy Number: 438**

**Effective Date: 10/1 2018**

**Applicability:**

This policy applies to the operation of every district-owned and/or contracted school bus.

**Rationale:**

Diesel exhaust from idling school buses can accumulate in and around the bus and pose a health risk to children, drivers and the community at large. Exposure to diesel exhaust can cause lung damage and respiratory problems. Diesel exhaust also exacerbates asthma and existing allergies, and long-term exposure is thought to increase the risk of lung cancer. Idling buses also waste fuel and financial resources.

**Purpose:**

Eliminate all unnecessary idling by [district] school buses and minimize idling time in all aspects of school bus operation.

**Guidance:**

1. When school bus drivers arrive at loading or unloading areas to drop off or pick up passengers, they should turn off their buses as soon as possible to eliminate idling time and reduce harmful emissions. The school bus should not be restarted until it is ready to depart and there is a clear path to exit the pick-up area. Exceptions include conditions that would compromise passenger safety, such as extreme weather or idling in traffic.
2. At school bus depots, limit the idling time during early morning warm-up to what is recommended by the manufacturer (generally 3-5 minutes) in all but the coldest weather.
3. Buses should not idle while waiting for students during field trips, extracurricular activities or other events where students are transported off school grounds.
4. In colder weather, schools are directed to provide a space inside the school where bus drivers can wait.
5. In colder weather, if the warmth of the bus is an issue, idling is to be at a very minimum and occur outside the school zone. The "warmed" bus is to enter the school zone as close to pick-up time as possible to maintain warmth and then shut down.
6. All service delivery vehicles shall turn off the engines while making deliveries to school buildings.
7. Transportation Operations staff are directed to revise bus schedules so that school bus caravanning can be avoided and the cleanest buses assigned to the longest routes.
8. All drivers shall receive a copy of this policy at the beginning of every school year.

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## Emission Results

Here are the combined results for all groups and upgrades entered for your project.

Annual Emissions (short tons) <sup>2</sup>	NO <sub>x</sub>	PM <sub>2.5</sub>	HC	CO	CO <sub>2</sub>	Fuel
Baseline for Upgraded Vehicles	0.183	0.012	0.023	0.081	36.9	3.284
Amount Reduced After Upgrades	0.166	0.012	0.019	0.069	13.6	1.206
Percent Reduced After Upgrades	85.1%	99.1%	86.6%	85.3%	36.7%	36.7%

### Baseline for Upgraded Vehicles

Baseline for Upgraded Vehicles	1.156	0.064	0.124	0.447	240.1	21,346
Amount Reduced After Upgrades	0.982	0.080	0.103	0.370	68.2	7,639
Percent Reduced After Upgrades	84.9%	95.1%	82.9%	82.6%	36.7%	36.7%

**Lifetime Cost Effectiveness (Savings for reduced**

<b>Capital Cost Effectiveness<sup>4</sup></b> (unit & labor costs only)	<b>\$168,523</b>	<b>\$2,738,608</b>	<b>\$1,608,372</b>	<b>\$447,880</b>	<b>\$1.876</b>
<b>Total Cost Effectiveness<sup>4</sup></b> (includes all project costs)	<b>\$168,523</b>	<b>\$2,738,608</b>	<b>\$1,608,372</b>	<b>\$447,880</b>	<b>\$1.876</b>

<sup>1</sup> Emissions from the electrical grid are not included in the results.

2 1 Short ton = 2000 lbs.

<sup>3</sup> In gallons; fuels other than ULSD have been converted to ULSD-equivalent gallons.

<sup>4</sup> Cost effectiveness estimates include only the costs which you have entered.

## Reinventing Life

**Rebago: School Bus | School Buses**

### Beheago: School Bus | School Buses

5 years  
8 years

## Results

The table below shows the estimated PM<sub>2.5</sub> reductions and health benefits by county and as a total for your project. Results are based on the inputs you have entered.

Annual Benefits represent the dollar value of health benefits resulting from reduced exposure to PM<sub>2.5</sub>. These benefits include the reduction of premature mortality, chronic bronchitis, asthma attacks, non-fatal heart attacks, and other health problems. The dollar values are based on studies used by EPA when estimating the health benefits of environmental rules.

Annualized Costs are based on the unit and labor costs you have entered. They have been annualized over the remaining life of the upgraded fleet.

### Health Benefits Results

County and State	Annual Diesel PM <sub>2.5</sub> Reduction (short tons)	Annual Benefits	Annualized Unit & Labor Costs
Cumberland, Maine	0.012	\$4,800	-
<b>Total</b>	<b>0.012</b>	<b>\$4,800</b>	<b>\$30,000</b>

## Appendix C (continued)

## Attachment D Action Location

Approximately 20% bus time while “in use” will be in school yards with a disproportionate quantity of air pollution.

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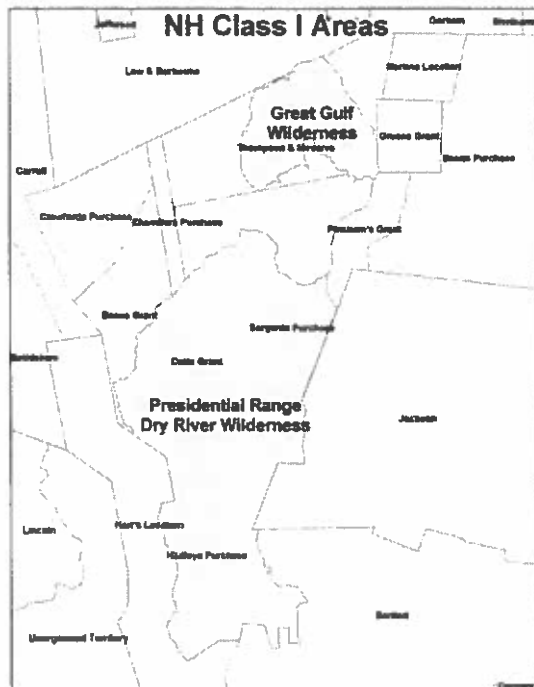


## Attachment E Class 1 Areas

Our school district is located within 50 kilometers of the Presidential Range/Dry River Great Gulf Wilderness Area. Our proximity to this Class 1 area could result in a positive impact on air quality related values (AQRV's).

9/14/2018

NHclass1.jpg (576x745)



## Attachment F Verified Funding

### Sebago School Department

Marc Gendron, Superintendent  
283 Sebago Road  
Sebago, ME 04029

mgendron@sebagolearners.org  
207-787-3701

To: VW Mitigation Settlement

From: Sebago School Department

Date: 8/15/2018

Subject: Verified funding

The Sebago School Department has secured funding for cost sharing or leveraging in support of the VW Mitigation Settlement Grant. The committee has designated up to \$50,000 for the purpose of making the funds available for the 25% match required by the application process.

Thank you for your consideration.

Sincerely,



Tina Vanesse, Chairman Sebago School Department

## Attachment H Benefit Period

1. Benefit Period - This action will result in sustained emissions and health benefits for the estimated life of the new buses. The estimated life for the busses is a minimum of 10 years.
2. Maintenance Schedules attached.

**Sebang School Department**  
**Driver's Vehicle Inspection Report**

Driver's Name:

Signature:

Bus #:

Pre-Trip/Post-Trip  
X:ok N:Not applicable O:Objectionable

Mileage Start/End:

Week of:

BEFORE OPERATING							DURING WARM UP							DURING WARM UP							
Item	S	M	T	W	T	F	Item	S	M	T	W	T	F	Item	S	M	T	W	T	F	S
Bus Interior Damage							Service Brakes							School Bus Warning Lights							
Bus Interior Cleanliness							Low Air Warning							Service Door							
Fire Extinguisher							Parking Brake							Emergency Exit							
First Aid/Body Fluid							Fuel Gauge							Emergency Exit Buzzers							
Road Triangles							AMP Meter							Stop Arm							
Chalk Blocks							Oil Pressure							Crossing Gate							
Seat Belt Cutter							Horn							Exhaust System							
Driver's Seat							Heaters/Defrosters							Fluid Leaks							
Left Front Tire							Windshield Wipers							Steering Wheel Free Play							
Right Front Tire							Windshield Washers							Steering Column							
Left Rear Duals							Headlights							Driver's Seatbelt							
Right Rear Duals							Tail Lights							Passenger's Seatbelt							
Wheels Rims							Stop Lights							Miscellaneous							
Lug Nuts							Brake Indicator Light							HANDICAPPED							
Credentials							Marker/Clearance Lights							Power Lift							
Bus Exterior Damage							Directional Signals/4 Ways							Lift Door							
UNDER THE HOOD							Reflectors							Buzzer							
Transmission Fluid							Mirrors							Interlock							
Oil							Seats							Identification							
Coolant							Windows							Light							
Power Steering Fluid							Entry Door							Fluid Leaks							
Window Washer Fluid							Rear Door														

Defects:

# Appendix H (continued)

TD-15  
Rev. 7-97

## NEW VEHICLE SERVICE WORK ORDER

Vehicle No. \_\_\_\_\_ Mileage \_\_\_\_\_ Date \_\_\_\_\_

Make \_\_\_\_\_ Year \_\_\_\_\_ Serial No. \_\_\_\_\_

Tire Size \_\_\_\_\_ Ignition Key No. \_\_\_\_\_

Make \_\_\_\_\_ Body No. \_\_\_\_\_ Cap. \_\_\_\_\_ Date Mfg. \_\_\_\_\_

### FRONT AXLE

- \_\_\_\_\_ Adjust & Refill wheel bearings
- \_\_\_\_\_ Balance front tire and rim
- \_\_\_\_\_ Brake lining thickness: Left \_\_\_\_\_ /32; Right \_\_\_\_\_ /32
- \_\_\_\_\_ Torque backing plate or spider mounting bolts
- \_\_\_\_\_ Torque drum to hub bolts \_\_\_\_\_ ft. lbs.
- \_\_\_\_\_ Torque spring u-bolts \_\_\_\_\_ ft. lbs.
- \_\_\_\_\_ Torque spring shackles & eye bolts or spring pivot bolts
- \_\_\_\_\_ Torque wheel bolts \_\_\_\_\_ ft. lbs.
- \_\_\_\_\_ Drive in and torque king pin lock bolt nuts
- \_\_\_\_\_ Torque steering gear mounting bolts and gear case bolts
- \_\_\_\_\_ Torque pitman arm nut \_\_\_\_\_ ft. lbs.
- \_\_\_\_\_ Adjust gear lash and sector end play
- \_\_\_\_\_ Check steering shaft u-joints for free movement and check trunion snap rings for seating.
- \_\_\_\_\_ Torque tie rod end nuts, drag link end nuts and 3rd arm mounting nut
- \_\_\_\_\_ Front End Alignment, set toe-in Adjustment
- \_\_\_\_\_ Set Axle Stops for Wheels

### REAR AXLE

- \_\_\_\_\_ Adjust & Refill wheel bearings
- \_\_\_\_\_ Torque drum to hub bolts \_\_\_\_\_ ft. lbs.
- \_\_\_\_\_ Brake lining thickness: Left \_\_\_\_\_ /32; Right \_\_\_\_\_ /32
- \_\_\_\_\_ Torque backing plate or spider mounting bolts
- \_\_\_\_\_ Check brake shoe to backing plate clearance-adjust-key or lock adjusting bolts
- \_\_\_\_\_ Torque Spring u-bolts \_\_\_\_\_ ft. lbs.
- \_\_\_\_\_ Torque spring shackles, eye bolts, or spring pivot bolts
- \_\_\_\_\_ Torque differential to housing and inspection cover to housing bolts
- \_\_\_\_\_ Torque wheel bolts \_\_\_\_\_ ft. lbs.

### OTHER MISCELLANEOUS TEST

- \_\_\_\_\_ Pressure test cooling system, visual inspection
- \_\_\_\_\_ Crankshaft end play \_\_\_\_\_ (record in thousands)
- \_\_\_\_\_ Check, adjust, and torque tie rod end, adjusting clamp bolts
- \_\_\_\_\_ Lubricate (check all fluid levels)
- \_\_\_\_\_ Adjust headlamps
- \_\_\_\_\_ Install tire chains (if needed)
- \_\_\_\_\_ NC Motor Vehicle Inspection, install inspection sticker to windshield
- \_\_\_\_\_ Test Engine DCA levels

### UNDER CARRIAGE

- \_\_\_\_\_ Torque body mounting bolts
- \_\_\_\_\_ Torque u-joint nut and drive shaft center bearing bracket bolts
- \_\_\_\_\_ Tighten hose clamps and pipe fittings for air lines, air dryer, and tanks
- \_\_\_\_\_ Check routing and mounting of hoses, pipes, battery cables, and wiring
- \_\_\_\_\_ Torque bolts in transmission case and transmission mounting bolts
- \_\_\_\_\_ Check and adjust (if needed) brake chambers push rod to slack adjuster angle

## Appendix H (continued)

	BODY
_____	Check all lights
_____	Adjust door controls a/r regulator
_____	Adjust windshield wiper stroke and/or arms
_____	Torque seat mounting bolts, all seat belt mounting and operation
_____	Torque glass channel mounting screws
_____	Torque turn signal bolts and screws, lens screws
_____	Adjust mirrors and tighten
_____	Check all electrical connections in body electrical panel
_____	Torque body to cowl bolts
_____	Check stop sign mounting screws; sign and tighten blade mounting bolts
_____	Modify battery box, coat inside of box with metal seal
_____	Check and adjust brake pedal free travel
_____	Lubricate glass channels & latches with silicone
_____	Lubricate drivers seat tracks
_____	Check for (install if necessary) a ground wire from body to the body electrical panel with warning light switch and solenoid.
_____	Check wheelchair lift for ground wire (INSTALL IF NECESSARY)

	ELECTRICAL SYSTEM
_____	Test starter current draw _____ Amps _____ Volts (ground secondary coil wire)
_____	Starting circuit resistance test (vohmmeter from positive battery terminal to starter term) _____ volts
_____	Alternator output test (regulated) _____ Amps
_____	Voltage regulator test _____ volts
_____	Charging system resistance test (AT 20 AMPS): (use voltmeter)
_____	Out put terminal of alternator to positive terminal of battery _____ volts
_____	Frame of alternator to negative term of battery _____ volts
_____	Diode-stator test
_____	Residual current draw (negative terminal of battery to negative cable) _____ Milliamperes

	ENGINE
_____	Check routing of heater hose, install pipe and/or support brackets, tighten clamps
_____	Check oil pan, valve cover and rocker arm cover bolts
_____	Torque manifold and exhaust pipe bolts and nuts
_____	Check all electrical connections
_____	Check throttle linkage and adjust (on non electronic engine)
_____	Adjust engine accessory drive belts
_____	Check modulator and governor linkage

	ROAD TEST
_____	Check travel angle
_____	Steering gear operation (lock to lock), lost motion, shimmy
_____	Panic stop (not sliding); brake action, engine idle
_____	Rear axle and drive line noise
_____	Transmission: operation, noise
_____	Automatic shift points up 1-2 _____ 2-3 _____ 3-4 _____ (WOT)
_____	Automatic shift points down 4-2 _____ 2-1 _____
_____	Test for maximum mph _____ top speed
_____	Break meter test _____ % (Break meter min. 80%)

### AFTER ROAD TEST

- \_\_\_\_\_ Adjust lubricant level in transmission and differential
- \_\_\_\_\_ Park vehicle in a clean dry area, observe 5 min. later for leaks
- \_\_\_\_\_ Bar test wheel bearings
- \_\_\_\_\_ Properly complete a TD-8B Preventive Mileage Service Form

REMARKS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Mechanic Signature \_\_\_\_\_

# Appendix H (continued)

TD-30  
Rev. 1-87

## 30 DAY SCHOOL BUS INSPECTION WORK SHEET

(NOTE: ALL ACTIVITY BUS INSPECTIONS REQUIRES USE OF WORK SOURCE #)

MILEAGE \_\_\_\_\_

BUS NO. \_\_\_\_\_ MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ SCHOOL \_\_\_\_\_ DATE \_\_\_\_\_

OK	Items Inspected	Needs Repairs	OK	Items Inspected	Needs Repairs
(1) _____	Steering: Fluid Added _____	_____	(22) _____	Clean: Int. _____ Ext. _____	_____
(2) _____	Brake, Foot (Check & Adjust)	_____	(23) _____	Fire Ext. _____ First Aid Kit _____	_____
(3) _____	Clean Slacks w/wire brush	_____		Body Fluid Kit _____	_____
(4) _____	Drain Air Tanks Completely	_____	(24) _____	Seats: All covers, foam pads, frames (seat cushions secure)	_____
(5) _____	Brake: Fluid Added _____	_____	(25) _____	Seat Belts (All)	_____
(6) _____	Brake, Park (Check & Adjust)	_____	(26) _____	Exhaust System	_____
(7) _____	Stop Sign & Walking Arm	_____	(27) _____	Cooling System: Added _____	_____
(8) _____	Batteries & Cables	_____	(28) _____	A. Freeze Protection _____*	_____
(9) _____	Tires: LF _____ RF _____ LRO _____ LRI _____ (Record Air Pressure) RRO _____ RRI _____	_____	(29) _____	Engine: Oil Added _____	_____
(10) _____	Tires: LF _____ RF _____ LRO _____ LRI _____ (Record Tread Depth) RRO _____ RRI _____	_____	(30) _____	Drain Fuel Water Separator	_____
(11) _____	Entrance Steps & Handrails	_____	(31) _____	Engine Belts (Adjust All)	_____
(12) _____	Door Controls (All)	_____	(32) _____	Transmission: Fluid Added _____	_____
(13) _____	Warning Buzzers (All)	_____	(33) _____	Drive Shaft	_____
(14) _____	Bus Body Glass (All)	_____	(34) _____	Differential: Lube Added _____	_____
(15) _____	Windshield Wipers (Arm Travel) Washer Fluid Added _____	_____	(35) _____	Springs and Hangers	_____
(16) _____	Sun Visor	_____	(36) _____	Lettering & Paint	_____
(17) _____	Horn	_____	(37) _____	Body & Sheet Metal Damage	_____
(18) _____	Lights (All)	_____	(38) _____	Wheel Chair Mounts (If equipped)	_____
(19) _____	Turn Signals & Cancellation	_____	(39) _____	Wheel Chair Lift (If equipped)	_____
(20) _____	Mirrors (All)	_____	(40) _____	Governor _____ MPH (maximum)	_____
(21) _____	Dash Instruments (All)	_____	(41) _____	Check Travel Angle	_____
			(42) _____	ROAD TEST COMPLETED	_____

Remarks: \_\_\_\_\_

Shop \_\_\_\_\_ Work Source \_\_\_\_\_ 0 \_\_\_\_\_

Repair Code # \_\_\_\_\_ MI Labor Hours \_\_\_\_\_ Mech. # \_\_\_\_\_

Repair Code # \_\_\_\_\_ MI Labor Hours \_\_\_\_\_ Mech. # \_\_\_\_\_

Repair Code # \_\_\_\_\_ 32 Labor Hours \_\_\_\_\_ Mech. # \_\_\_\_\_

(Record labor to nearest tenth hour)

Mechanic's Signature \_\_\_\_\_

(NOTE: KEY LABOR BY DATE ON INSPECTION SHEET)

# Appendix H (continued)

Revised 1-87  
TD-88

## PREVENTIVE MAINTENANCE - 12,000/24,000/48,000 MILE SERVICE

DATE			SHOP	VEHICLE	LICENSE	WS	MILEAGE	MAKE	MODEL	AGENCY	
MO	DAY	YR				D					
CHARGE ALL LABOR TO NEAREST TENTH HOUR							All Mechanics Numbers 3 Digits				
Repair Order #		SECTION 1 (M) 12,000 MILE SERVICE (Perform initial road test described in PM manual)									
-1		REPAIRS PERFORMED					RC	ACTHRS	MECH #	ACTHRS	MECH #
TRANS. shift points 1-2		2-3 3-4					00				
TRANS. shift points down 4-2		2-1					00				
GOV. operation: HIGH		LOW VAR					MG				
WASH ENG. & BAT. Compartment area							04				
CHG OIL & OIL FILTERS (12000/24000/48,000) (Select either 06, 07, 08)											
SERVICE: tube fittings & check all fluid levels							06				
REP. FUEL FILTERS							75				
TEST & SER. AIR FILTER (if needed)							09				
LUBE DOORS & HOOD (hinges & latches)							77				
TOTAL HOURS PG-1 >							TOTAL LABOR COST >				
Repair Order #		SECTION 2 (M) 24,000 MILE SERVICE									
-2		REPAIRS PERFORMED					RC	ACTHRS	MECH #	ACTHRS	MECH #
CRANKSHAFT END PLAY		(measured in thousands)					14				
CLEAN HEATER FILTER							04				
ADJ. GOV. & THROTTLE (linkage) (check WOT)							77				
TEST COOLANT ADDITIVE (DCA Level)							61				
REP. COOLANT FILTER							09				
PRESSURE TEST COOLING SYS.							96				
SER. BATTERY (cables & compartment)							21				
INSPECT & ADJ. ENG BELTS							16				
TOTAL HOURS PG-2 >							TOTAL LABOR COST >				
Repair Order #		SECTION 3 (M) 48,000 MILE SERVICE									
-3		REPAIRS PERFORMED					RC	ACTHRS	MECH #	ACTHRS	MECH #
TEST ALT. _____ AMPS							22				
TEST REG. _____ VOLTS							22				
SER. AIR COMP. (filter & moisture ejection)							5A				
REP. AUXILIARY FILTER (automatic transmission)							50				
TEST STEER. GEAR OPER.							48				
TORQUE SPRING U-BOLTS (hangers, body clamps, etc.)							44				
SER. WHEEL CHAIR LIFT							MC				
FRONT END ALIGNMENT (set toe in)							40				
TOTAL HOURS PG-3 >							TOTAL LABOR COST >				



# Appendix H (continued)

DATE			SHOP	VEHICLE	LICENSE	INS	MILEAGE	MAKE	MODEL	AGENCY	
MO	DAY	YR				D					
CHARGE ALL LABOR TO NEAREST TENTH HOUR											
All Mechanics Numbers 3 Digits											
Repair Order #		SECTION 4 (80) 12,000 MILE SERVICE									
-4		REPAIRS PERFORMED					RC	ACT/HRS	MECH #	ACT/HRS	MECH #
		FRONT BRAKES RF 32 LF 32 (Check or refine)					3A				
		TURN BRAKE DRUMS (if needed)					37				
		REPACK WHEEL BEARINGS (all removed bearings)					57				
		ADJ. BRAKES					32				
		BUS TRAVEL (Pickup & delivery)					88				
		BRAKE TEST % (panic stop, brake meter min. 80%)					37				
		ROAD TEST VEHICLE					00				
		TOTAL HOURS PG-4 >					TOTAL LABOR COST >				
Repair Order #		SECTION 5 (87) 34,000 MILE SERVICE									
-5		REPAIRS PERFORMED					RC	ACT/HRS	MECH #	ACT/HRS	MECH #
		SER. AUTO. TRANS. (replace fluid & filter) (Adjust shift points if needed)					50				
		REAR BRAKES: RR 32 LR 32 (check or refine)					38				
		TURN BRAKE DRUMS (if needed)					37				
		REPACK ALL WHEEL BEAR. (All Removed Bearings)					57				
		INSPECT S-CAM BUSHINGS (Replace if needed)					37				
		CHECK TENSION BELT PULLEY					16				
		TUNE UP ENGINE					12				
		TEST STARTER (draw _____ AMPS _____ VOLTS)					24				
		TOTAL HOURS PG-5 >					TOTAL LABOR COST >				
Repair Order #		SECTION 6 (88) 41,000 MILE SERVICE									
-6		REPAIRS PERFORMED					RC	ACT/HRS	MECH #	ACT/HRS	MECH #
		SER. POWER STEERING					48				
		SER. AIR DRYER (replace desiccant)					5A				
		DRAIN & REP. BRAKE FLUID (hydraulic system)					33				
		SER. DIFFERENTIAL (drain & replace non synthetic lube)					58				
		RADIATOR DRAIN & FLUSH (replace with new antifreeze)					81				
		ENGINE VALVE ADJUSTMENT					12				
		SERVICE OUTBOARD DRUM WHEEL BEARINGS					57				
		UNDER COAT BUS					44				
		TOTAL HOURS PG-6 >					TOTAL LABOR COST >				

Mechanic Signature \_\_\_\_\_

## ATTACHMENT I

### Authorized Agent Certification

The Authorized Agent certifies that they have been authorized by the Project Proponent to submit this application, that the Project Proponent agrees to all the program requirements, and that the information provided is an accurate representation of the project.

Action Proponent's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

*Marc Gendron*  
*8/23/18*

Authorized Agent's Signature: \_\_\_\_\_  
(if different from Action Proponent)

Date: \_\_\_\_\_

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### Action Proponent Signature

The Action Proponent certifies that the action(s) is/are accurately described in this application. Signature indicates that the action(s) comply with all requirements of the Volkswagen Environmental Mitigation Settlement, provides the designated level of cost share funds, and a willingness to enter an agreement with the Maine Department of Transportation requiring the Action Proponent to administer the project abiding to federal, State, and local requirements. The Action Proponent also accepts responsibility for submitting progress reports during the term of the project and providing future maintenance of the completed action through 2027.

Action Proponent(s): *MARC GENDRON*

Title:

*SUPERINTENDENT*

Phone#:

*(207) 787-3701*

Email:

*mgendron@SEBAGO LEARNERS*  
*ORG*

Signature(s)

*Marc Gendron*

Date

*8/23/18*