

To: House and Senate Committees on Transportation and Appropriations
From: Wanda Minoli, Commissioner, Department of Motor Vehicles

Date: January 16, 2018

Subject: *Act 71 Sec. 24a. – License Plate Cost Savings*

In 2017, the Legislature passed Act 71 into law. Section 24a required that the Commissioner of Motor Vehicles and the Commissioner of Corrections perform studies to determine potential cost savings in the production and acquisition of license plates.

In accordance with Sec 24a the Department of Motor Vehicles has prepared the attached report on license plate cost savings.

Background:

The Vermont Department of Motor Vehicles purchase an average of 110,000 full-sized car and truck license plates per year, costing the department in excess of \$500,000 annually. In the 2017 legislative session, the Vermont legislature requested that the Commissioners of Motor Vehicles and Corrections collaborate to determine ways in which the state could potentially reduce costs associated with the production and procurement of license plates.

Act 71 of 2017, Sec. 24a Required Information:

1. Examine whether the redesign of Vermont's standard license plate could lead to cost savings associated with the production of such plates and, if cost savings are likely to result from a redesign, shall estimate how much savings would result from various redesign options
2. Identify any other opportunities to reduce costs associated with the production and acquisition of license plates, including by reducing materials costs, and estimate the cost savings expected to result from such opportunities.
3. Estimate all cost savings that would result from eliminating the requirement that vehicles registered in Vermont display front license plates, except in the case of motor trucks with a registered weight of 10,100 pounds or more. The estimate shall assume that front and rear license plates will continue to be issued for vehicles registered pursuant to 23 V.S.A. § 304(b)(1) (vanity plates)

Section 1: *examine whether the redesign of Vermont’s standard license plate could lead to cost savings associated with the production of such plates and, if cost savings are likely to result from a redesign, shall estimate how much savings would result from various redesign options*

Current Production Process:

Today’s license plates are cut from 0.032” gauge aluminum and bonded to a preprinted, reflectorizing sheeting. The sheeting is preprinted with the familiar green color and unique indicators. The plates are then debossed, pressing the alphanumeric characters into the surface of the plates and creating the rim around the edge. Vermont license plates are unique in that they are the only plates in the union featuring debossed alphanumeric characters. The plates are then finished and packaged for shipment to DMV offices an

Vermont Correctional Industries (VCI) owns all equipment used in the process, and create more than 100,000¹ pairs of standard car and truck license plates annually.

While Vermont is unique in that it is the only jurisdiction to create plates using a debossing process, we are in the majority when it comes to where our plates are produced. The majority of jurisdictions in the United States and Canada utilize correctional industries to produce their license plates. A 2017 survey of member jurisdictions of the American Association of Motor Vehicle Administrators indicates that 61% (17 of 28 respondents) utilize correctional industries in the production of plates.

Redesign:

The implementation of a new standard license plate design without making further changes to the materials used or the printing methods employed is not anticipated to result in a reduction in costs.

The current design involves applying a single-color ink to a pre-printed reflective sheeting material. Any change in design that involves the use of more than one color of ink will result in an increase in cost of production by \$0.02 per plate per color added.

Making a change in the design of the pre-printed sheeting will be covered under the contract with the current vendor; however, the changes will not lead to a reduction in price paid by VCI or DMV.

Creative services provided the Vermont Chief Marketing Office required in the creation of new license plate designs will be done at no cost to the department.

¹ Figure does not include vanity plates

Current Costs

VCI Production Costs – Standard License Plates:

Expense	Single Plate	Pair of Plates
Aluminum	\$0.415	\$0.83
Preprinted Sheeting	\$0.605	\$1.21
Envelope	\$0.30	\$0.30
<i>Total Expenses:</i>	<i>\$1.32</i>	<i>\$2.34</i>

VCI Production Costs – Special License Plates²:

Expense	Single Plate	Pair of Plates
Aluminum	\$0.415	\$0.83
White Sheeting	\$1.175	\$2.35
Envelope	\$0.30	\$0.30
<i>Total Expenses:</i>	<i>\$1.89</i>	<i>\$3.48</i>

Costs to DMV – Standard License Plates:

Expense	Single Plate	Pair of Plates
Plate Cost	\$3.88	\$4.79
Postage	\$3.16	\$3.96
<i>Total Expenses:</i>	<i>\$7.04</i>	<i>\$8.75</i>

Costs to DMV – Special License Plates:

Expense	Single Plate	Pair of Plates
Plate Cost	\$4.32	\$6.14
Postage	\$3.16	\$3.96
<i>Total Expenses:</i>	<i>\$7.48</i>	<i>\$10.10</i>

² E.g. Building Bright Futures, US Veterans, Conservation. These plate types are created using short-run white sheeting, which is more expensive due to order quantities.

Section 2 - *Identify any other opportunities to reduce costs associated with the production and acquisition of license plates, including by reducing materials costs, and estimate the cost savings expected to result from such opportunities.*

Materials Cost Savings:

Aluminum

VCI currently produces four plates per pound of aluminum. By converting to a thinner aluminum (0.027”) they will be able to increase that amount to five.

While converting to thinner aluminum is expected to increase the number of plates created per pound of aluminum purchased, the final plates will be less resilient to conditions, and may be damaged during the debossing process. As a result, the expected savings per plate through the use of thinner aluminum is \$0.07 per plate.

The department purchases an average of 230,000 full-sized license plates of all types³; therefore converting to 0.027” gauge aluminum produces a projected savings of \$16,100 annually.

Plate Manufacturing Methods:

Digital Printing

The debossing process in use today is highly involved, and requires that plates be handled multiple times in order to complete the process. It also is time consuming, with each new plate number produced requiring a worker to manually change the alphanumeric dies before activating the machine press. Due to the physical nature of the debossing process, plates must be printed in larger batches of the same type, necessitating either VCI or DMV to store plates before they are needed.

An alternative to the debossing method currently in use to produce Vermont license plates is digital printing. Converting to a digital printing process would allow Vermont the flexibility to print multiple plate types in a single order. A digital printing process would also allow Vermont to convert to on-demand printing and delivery of plates, eliminating the need to produce and store more plates than necessary to meet customer demands.

Total Cost to DMV⁴ – Debossed vs Digital

	Debossed Standard	Digital Standard	Debossed Special	Digital Special
Single Plate	\$7.04	\$8.30	\$7.48	\$8.30
Pair of Plates	\$8.75	\$11.52	\$10.10	\$9.10

³ Figure includes all vehicle types, including trailers, buses, antique vehicles, etc.

⁴ Total cost to DMV includes acquisition cost plus postage.

VCI Production and DMV Acquisition Costs – Debossed vs Digital Printing

Standard Plates⁵

VCI Production Costs										DMV Acquisition Costs	
Vendor	Aluminum	Pre-Printed Sheeting	Over-laminate	One-Color Ribbon	Envelope	Service Agreement	Equipment ⁶	Cost/Pair	Single Plate	DMV Cost/Pair	DMV Single Plate
Current – Debossed	\$0.83	\$1.21	N/A	N/A	\$0.30	N/A	N/A	\$2.34	\$1.32	\$4.79	\$3.88
Vendor A – Digital	\$0.83	\$1.24	\$0.45	\$0.16	\$0.30	\$0.55	\$0.94	\$4.47	\$2.39	\$7.56	\$5.14
Vendor B – Digital	\$0.83	\$0.85	\$0.50	\$0.20	\$0.30	\$0.39	\$0.71	\$3.78	\$2.04	\$7.56	\$5.14

Special Plates

VCI Production Costs										DMV Acquisition Costs	
Vendor	Aluminum	White Sheeting	Over-laminate	Four-Color Ribbon	Envelope	Service Agreement	Equipment	Price/Pair	Single Plate	DMV Cost/Pair	DMV Single Plate
Current – Debossed	\$0.83	\$2.35	N/A	N/A	\$0.30	N/A	N/A	\$3.48	\$1.89	\$6.14	\$3.88
Vendor A – Digital	\$0.83	\$1.02	\$0.45	\$0.64	\$0.30	\$0.55	\$0.94	\$4.73	\$2.52	\$7.56	\$5.14
Vendor B – Digital	\$0.83	\$0.80	\$0.50	\$0.80	\$0.30	\$0.39	\$0.71	\$4.33	\$2.32	\$7.56	\$5.14

⁵ All digital printing costs are estimates and subject to change, should a new contract be agreed upon.

⁶ Equipment costs will be spread across plates produced. Total anticipated equipment costs – Vendor A \$725,000, Vendor B \$550,000.

Section 3 - Estimate all cost savings that would result from eliminating the requirement that vehicles registered in Vermont display front license plates, except in the case of motor trucks with a registered weight of 10,100 pounds or more. The estimate shall assume that front and rear license plates will continue to be issued for vehicles registered pursuant to 23 V.S.A. § 304(b)(1) (vanity plates).

For FY15-FY17, the Department ordered an average of 100,000 sets of license plates for pleasure cars and trucks registered at less than 10,100, not including vanity plates. The elimination of the front license plate would allow the department to save \$0.415 per vehicle in aluminum costs, plus an additional \$0.605 in sheeting costs. While materials savings are expected through the elimination of the front license plates, the overhead and labor costs would not be significantly reduced, and would result in an increase in overhead costs charged per plate produced of \$0.11. As a result, the total anticipated savings is \$0.91⁷ per plate eliminated.

In addition, the postage to mail a license plate would be \$3.16, opposed to current price of \$3.96 per set of plates mailed.

Elimination of Front Plate, No Changes to Materials or Production:

Materials and Manufacturing:	100,000 ⁸ @ \$0.91/set	\$91,000
Postage:	25,000 ⁹ @ \$0.80 ¹⁰ /set	\$20,000
Total Savings		\$111,000

Elimination of Front Plate, Plus Changes to Aluminum:

Materials and Manufacturing:	100,000 ¹¹ @ \$0.91/set	\$91,000
Postage:	25,000 ¹² @ \$0.80 ¹³ /set	\$20,000
Aluminum:	0.027" vs 0.032"	\$16,100
Total Savings		\$127,100

⁷ Financial impact to VCI is \$0.91 per plate eliminated as well.

⁸ Average pleasure car and truck plate orders for FY15-FY17 were 100,000, not including vanity plates.

⁹ 25% of plates are issued through the mail.

¹⁰ \$3.96 (cost to mail two plates) - \$3.16 (cost to mail one plate)=\$0.80

¹¹ Average pleasure car and truck plate orders for FY15-FY17 were 100,000, not including vanity plates.

¹² 25% of plates are issued through the mail.

¹³ \$3.96 (cost to mail two plates) - \$3.16 (cost to mail one plate)=\$0.80

Opportunities for Savings Identified

Potential Savings on Temporary License Plates

The Department of Motor Vehicles purchase eight different types of temporary license plates, printed on rain resistant cardboard. Due to the manually intensive printing practice required in order to produce and number the plates, the department pays a premium to have these plates printed. The department pays an average of \$0.43 per temporary paper plate, and spends an average of \$11,000 annually in temporary plate costs. Further exploration is necessary; however, initial estimates indicate savings are possible.

Plate Type	Avg. Annual Order	Avg. Annual Expense
Interstate	7,500	\$3224.48
Dealer	10,000	\$4,299.30
Intrastate	350	\$150.48
DMV	6,667	\$2,866.20
Motorboat	750	\$406.34
ATV	500	\$212.96
Motorcycle	667	\$256.00
IRP	100	\$35.00
<i>Total</i>	<i>26,534</i>	<i>\$11,450.76</i>

Future Action Items

- Develop protocol to allow motor vehicle dealers ability to print temporary registrations
- Modify statutes regarding temporary registrations and license plates
- Expand department's metal plate dealer program, allowing more dealers to issue metal plates directly to consumers