

# Highway Robbery

Public Private Partnerships and  
Nova Scotia Highways

Christopher Majka





**CCPA**

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**ISBN 978-1-77125-455-7**

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**ACKNOWLEDGMENTS**

The author would like to thank the anonymous peer reviewers for their constructive feedback and thorough review. The author also wants to thank Christine Saulnier, Nova Scotia Director of the CCPA for her help getting this report ready for publication. Also, a special thank you to Howard Epstein who provided assistance.

This research was supported by funding provided by the Canadian Union of Public Employees. The report is an independent, peer-reviewed report. Any errors are those of the author.

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# Executive Summary

AN EXAMINATION OF the Highway 104 Western Alignment highway, known as the Cobequid Pass Toll Highway, reveals that it cost **\$232 million** more to build, finance, operate and maintain as a P3 project. This includes significant additional costs for financing (**\$102 million**), operations (**\$121 million**), and maintenance (**\$9 million**). This is a steep premium for Nova Scotians to pay for a project whose design and construction costs were **\$124.6 million**. Here are three other concerning findings regarding this P3 project:

- i) Although \$350 million in toll revenues has been collected over the past 22 years, and the current balance exceeds the remaining debt owed to the bondholders, the government cannot pay down the outstanding debt without incurring penalties that exceed the savings of doing so.
- ii) Although the private partner in this project was originally to undertake the maintenance of the highway, it was subcontracted back to the province itself, a peculiarly circular arrangement. Although the province claims it recovers the direct costs of this maintenance, it determined that indirect costs, estimated at 25–30% of the former, are not being recovered, a further cost to the province.

- iii) Although a crown corporation, Highway 104 Western Alignment Corporation that administers the highway, is excluded from the Public Utilities Act and the Freedom of Information and Protection of Privacy Act. This means that rate changes are not subject to a public review by the Utilities and Review Board, nor can information about it be obtained through a Freedom of Information request. Further, despite the fact that it is a crown corporation managing a public asset situated on provincially-owned land, it does not report directly to the Legislative Assembly.

On close examination the advantages often cited to support P3 developments—project delivery on time and on budget; cost saving; risk allocation to the private sector; provide now, pay later—have little to recommend them. They provide either no advantage or are as easily achievable through traditional government procurement. Moreover, there are significant disadvantages, notably the much higher costs of financing projects as P3s, and the ways in which governments' hands are tied by long-term P3 contracts resulting in significantly less operational and financial flexibility.

In the case of the Sutherland's River-Antigonish Highway 104 Expansion project, also planned as a P3, and for which the Nova Scotia government is currently receiving bids, a similar prospective examination indicates that it might cost **\$66.6 million more** in interest payments than it would cost to finance the project through government bonds.

Also, the construction costs of the project as a P3, announced as \$285 million, are **\$52.6 million more** than highway construction costs that government currently pays for constructing identical lengths of twinned highway through normal government procurement. These two items would add on the order of **\$119.2 million** in *extra* costs to the project.

The terms of the maintenance costs of this 30-year project have not been announced yet. Lessons learned in other provinces reveal additional concerns about P3 highways, where either the costs increased at a rate greater than inflation, or else when costs were controlled through performance-based contracts that the quality of winter maintenance declined noticeably with a corresponding increase in safety concerns.

# Introduction

THE PAST THIRTY years have seen a dramatic new approach in the way that public services are financed, organized, delivered, and administered—Public Private Partnerships (P3s, or PPPs)<sup>1</sup>. What are these entities, what do they do, and why do they exist? Are P3s an improvement on previous mechanisms of public service procurement, delivery, and administration, an insignificant flash in the pan, or a retreat from core values of public control and administration and the core duties that governments have to provide services for their citizens?

The answers to these questions are critically important. In many jurisdictions throughout the world we now have three decades of experience with P3s. We also face what are probably the most significant challenges in human history. And the methods of how we address these problems—in other words the mechanisms of public governance—are not incidental to the task: they are instrumental in finding solutions to them.

Central to this are questions related to who shapes and controls the projects we as a society undertake; what values are prioritized in their development and delivery; how are risks allocated and shared; who is accountable for the results or lack thereof; how is the process monitored and administered; what are the costs, how are they distributed, to whom and by whom; how are the profits distributed, to whom and by whom; who owns the assets; what are the obligations of the respective parties; and who profits from the associated economic activity? These are not peripheral questions of public and private administration; they reflect core issues with respect to how each project is seen within the larger societal matrix.

This study examines one P3 project, the Highway 104 Western Alignment toll road known as the Cobequid Pass Toll Highway. This highway was built in Nova Scotia in 1996–1997 to expand what was formerly a two-lane section of Highway 104 (the TransCanada Highway) into a four-lane highway. The study also looks at future plans to similarly develop (between 2020–2023) another section of Highway 104 between Sutherland’s River–Antigonish, as a divided four-lane highway employing a P3 model. What do the lessons of the former indicate about the development of the latter?

The study weighs the advantages and disadvantages of a P3 approach as compared to delivering the project through conventional public procurement. Although the form of government contracting may seem a prosaic and bureaucratic matter, in fact it emerges from deeper roots that reflect the relationship of governments to those who are governed, and the responsibilities and accountability that these relationships entail.

# Public-private Partnerships

P3S ARE A contracted relationship between government (federal, provincial, or municipal) and a private party to provide a public service and/or to build and/or operate some kind of public infrastructure project on behalf of government or a public sector authority. The private party assumes substantial financial, technical, and operational duties (and risks). In return they are guaranteed a revenue stream to compensate them for these duties and risks.<sup>2</sup>

In Canada such projects are typically to construct and/or operate major infrastructure such as schools, bridges, sewage and wastewater treatment plants, transit infrastructure, urban renewal projects, drinking water infrastructure, hydroelectric projects—and highways such as the subject of this study.<sup>3</sup> In other jurisdictions projects such as telecommunications, irrigation, airports, building renovations, and administration of state parks have been undertaken by P3s.<sup>4</sup>

In Nova Scotia the P3 model was extensively employed in the development of public schools. Since the 1990s 39 such schools have been built in the province. One study, based largely on reviewing several auditor general's reports, found the P3 approach to be a, “failure in terms of cost, risk management and evidence-based decision-making,” that, “cost Nova Scotians tens of millions more than the traditional procurement system.”<sup>5</sup>

More recently the province proposes to use a P3 model to replace three buildings in the QEII hospital complex in Halifax,<sup>6</sup> part of a \$2-billion



redevelopment of the Maritime region's major hospital system; and even more recently the P3 model was selected to redevelop hospital facilities in both New Waterford and North Sydney, in the Cape Breton Regional Municipality (CBRM).<sup>7</sup>

The particular forms that P3s take can vary according to the kind of project being undertaken, however in Canada they can be grouped into three categories:<sup>8</sup>

- 1) Build-Own-Operate-Transfer (BOOT) or Build-Operate-Transfer (BOT) projects** in which the private party receives a concession from the public sector body to finance, design, construct, own, and operate a facility. In this case, in return for the concession, the private party takes on overall aspects of the delivery, provision, and operation of the public service. In some cases, the private party actually owns the facility, in other cases not.

Such arrangements differ from outright privatization in that there exists a contractual agreement that the private party is subject to, and in the case of BOT projects, the facility is transferred back to public administration at the end of the term of the concession agreement.

- 2) Company Owned–Government Operated (COGO) projects;** and
- 3) Government Owned–Company Operated (GOCO) projects.**

The latter two P3s are often called DBFOM (Design, Build, Finance, Operate, and Maintain) contracts. The developmental vehicle for the project is typically a company called a “Special Purpose Vehicle” (SPV) created by a private sector consortium to develop, build, maintain, and operate that asset. Such consortia are composed of the building contractor(s), the maintenance and operations companies, and the equity investors.

Depending on the project, the government may provide a capital subsidy, revenue subsidies such as tax exemptions, tax deductions, or tax credits, or annuities such as guaranteed annual revenues for a fixed time frame, the duration of the concession or a shorter interval.

It is important at this stage to contrast the P3 model of project development and procurement of public services with what has been the norm amongst governments prior to the era of neoliberalism, namely public procurement.

# Public Procurement

GOVERNMENTS HAVE ALWAYS needed to procure goods and services from the private sector. This has traditionally been through the mechanism of public procurement, also called the Public Sector Alternative (PSA).<sup>9</sup> This involves the issuance of public tenders for projects; private concerns submit bids; the public authority reviews the bids based on appropriate criteria such as cost, quality of work, timelines, and value for money, and selects the best one. A contract specifying the parameters of the project is negotiated and the private contractors deliver the appropriate goods and services, inspected or monitored by officials from the appropriate government department or agency. If there are maintenance or operations requirements beyond what government employees provide then contracts for these are solicited and negotiated in similar fashion.

The relationship of the public sector authority to the private sector contractors may be complicated and detailed, but from the standpoint of ownership, direction, and accountability it is straightforward: **the government agency owns the asset, it fully directs the process, and it is publicly accountable for its conduct.** A critical distinction between PSAs and P3s is that in PSAs the private sector does not provide financing for the project, nor does the contract bundle several components into a single contract.

In Canada, federal procurements are generally organized by Public Services and Procurement Canada (PSPC) and the terms and operations of these procurement processes are subject to the Financial Administration Act (1985), the Department of Public Works and Government Services Act

(1996), and the Federal Accountability Act (2006).<sup>10</sup> All of these have provisions governing how such procurements will be awarded and operated and are subject to public scrutiny. These provide for a very thorough legislative and regulatory framework in which public procurement operates, with provisions for public oversight, accountability, recourse, and transparency.

# PPP or PSA?

IS THERE AN identifiable advantage to following a P3 approach over the traditional one of public procurement? According to Boardman et al., several arguments are typically invoked to make this case.<sup>11</sup>

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## 1) On Time, On Budget

An important rationale given for adopting a P3 approach is they are said to deliver projects on time and on budget. This is usually ascribed to both the contracts themselves, which often specify costs and timetables with the private contractors responsible for cost overruns or penalties for late completion. At the same time, it is often argued that private contractors have not only a contractual incentive to complete the work on time and on budget, but that they have the operational versatility to do so.

The argument is also made that a cost-plus (i.e., a non-fixed price) PSA approach can suffer from a moral hazard in that the more a project costs the more the private contractors are paid. However, an important point is that contracts that specify a fixed-price, with contractors responsible for cost overruns and specific timelines for completion, can as readily be negotiated under a PSA approach as they can under a P3 one. Therefore, this criterion provides no rationale for choosing P3s over PSAs.

Furthermore, some of the purported advantages of P3s in delivering projects “on-time” are really illusory because the ‘clock’ in such projects is often set to start ticking only at the end of an extensive planning and

negotiating process.<sup>12</sup> Indeed, the lengthy negotiations for P3 projects can sometimes mean that the total time frame for the project is actually longer than with a PSA approach. Also, it is sometimes alleged, that the budgets of projects are inflated so as to ensure that the project will, indeed, be completed “on budget.”

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## 2) Risk Transfer

An important reason often given for adopting a P3 approach is risk transfer from the public sector to the private sector. What does this mean? Cost overruns and project delays are undoubtedly risks in any infrastructure procurement project, and the bigger and more costly the project, the greater the risks. Some of these can be anticipated *a priori* and factored into the development process with appropriate time and budgetary contingencies. Some may arise unexpectedly.

Such delays and overruns are undoubtedly of concern to governments, both in relation to planning and delivery of the projects, as well as politically. Having the private sector assume such risks is an attractive prospect for governments. The argument is sometimes made that the higher costs of P3 projects due to higher financing costs (see below) can be justified as a fee for transferring risk to the private sector. Of course, the private sector is only interested in taking on such risk if they charge a very steep premium for doing so. Risk is risky, and only very high profit margins justify taking it on.

However, risk transfer to the private sector is really an illusory or unnecessary notion for many reasons. First, as outlined above, fixed-price specific-timeline contracts can equally be negotiated with a PSA approach. Moreover, transferring risk in this way is not always conducive to obtaining the best value for money; for example, if the private sector is motivated by the terms of the contract to drive down costs and shorten the time frame.

Another way to view risk transfer is as an insurance policy for the government, paying a premium to insure against unexpected costs or delays. However, governments are, by virtue of their size and budgets, effectively in a position to self-insure. In other words, rather than tabulating all the risks for every public procurement project they undertake, and devolving these to the private sector via an “insurance policy” through P3s, governments can simply insure themselves through a contingency fund that can apply to any project that experiences a problem. Given the lower costs of financing avail-

able to governments (see below), this is almost always less expensive than separate “insurance policies” for every project that government undertakes.

And, in the final analysis, governments are always the residual risk holders in any public procurement. If there are political “costs” with respect to a delay or budget overrun they will ultimately be borne by the government. Private contractors may declare bankruptcy and vanish but a government will always be there and must pick up the pieces if required.

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### 3) Corruption

Corruption can be a concern in regard to the administration of PSA public procurement. However, many of the same problems can also occur, albeit in slightly different forms, when it comes to P3 procurements. Temptations for personal profit, bribery, or kickbacks exist wherever significant sums trade hands. In Canada, the Charbonneau Commission<sup>13</sup> investigated significant corruption with respect to the construction industry in Québec, including what was termed the “biggest corruption fraud in Canadian history” with respect to the P3 infrastructure project to build the McGill University Hospital Centre.<sup>14</sup> Under both PSA and P3 approaches representatives of the public sector still have to verify and sign-off on the delivery of goods and services no matter what the basis of the contractual arrangements.

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### 4) Financing

Depending on the nature of the P3 project, sponsoring government may be responsible for some portion of the financing of the project until it is completed and delivered. Historically, this has been one of the most attractive features of P3 projects—the “rent to own” rationale.<sup>15</sup> Governments that perceive themselves to be under fiscal constraints—whether these are self-imposed restraints as a result of decreasing taxation or the desire to balance budgets, or externally imposed restraints having to do with declining revenues—can find it attractive to “buy now, pay later” for the provision of public services.<sup>16</sup> If the needs for the project are urgent then there is an understandable interest in embarking on a project as soon as possible, irrespective of the immediate financial position of the government.

Furthermore, in many jurisdictions this has allowed government to effectively keep the financial costs of provision of such public services “off-book”, in other words off the balance sheets of the government. This has

considerable appeal to governments who are, for political reasons, interested in presenting budgets that are either balanced or minimally in the red.

P3 projects in which the financing is provided by the private sector offer an attractive prospect of seemingly squaring this impossible circle: providing public services financed by the private sector. In the case of infrastructure projects such as toll highways, this seems even more attractive in that the financing is recovered from tolls that are administered by the SPV and not by the government itself. This seems like having your cake and eating it too—public infrastructure provided at no cost to the government.

But there is an inevitable fly in this ointment—governments are able to borrow money at far less than the private sector. And in return for financing the private sector must not only pay the higher costs but make a profit on the arrangement as well.

# Evaluating the Highway 104 Western Alignment Toll Road

BEFORE PROCEEDING WITH an evaluation of the Highway 104 Western Alignment toll road, it is useful to understand the structure of relationships between the various entities that have been and are part of this P3 project.

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## History, Structure, and Management

The Highway 104 Western Alignment Corporation (HWAC)<sup>17</sup>, which administers the Highway 104 Western Alignment Toll Road, was created by an Act of the Nova Scotia Legislature, the Highway 104 Western Alignment Act (1995)<sup>18</sup>. It is a government-business partnership owned by the Province of Nova Scotia. It has one share and that non-transferable share is owned by the Province. It has a Board of Directors consisting of a single director appointed by the Executive Council (i.e., the cabinet) of Nova Scotia and that director is also the president of the Corporation. There are three employees.

As outlined in HWAC's annual report, in 1996 HWAC subcontracted the Atlantic Highway Corporation (AHC), a subsidiary of Canadian Highways International Corporation (CHIC), of Mississauga, to build the highway. This was the Special Purpose Vehicle (SPV) created for this P3 project. AHC subcontracted portions of the project to their three Nova Scotia-based



partners: Nova Construction (in Antigonish), Tidewater Construction (which no longer exists), and the BFC Civil Company of Canada (which subsequently merged into the Aecon Group). This group of partners built the 45 km four-lane divided highway between Masstown and Thompson's Station along the route of the TransCanada (104) Highway in Nova Scotia.<sup>19</sup>

The financing of the project was undertaken (in part) by the Newcourt Credit Group, a Toronto-based company that subsequently merged with CIT Financial Limited (CIT). CIT is a major financial holding company headquartered in New York that also operates the CIT Bank system in the United States. CIT Structured Finance, a unit of the CIT Group, is the bondholders' representative. It doesn't hold any of the bonds itself; they are held by four insurance companies and one investment firm.<sup>20</sup>

HWAC subcontracted the management of the operations and maintenance of the highway and its facilities to the Atlantic Highway Management Corporation Limited (AHMCL), a subsidiary of the Aecon Group, a Toronto-based construction company. Neither CHIC nor AHC exists any longer.<sup>21</sup>

HWAC reports to the bondholders' representatives (CIT) and also to what is called the Joint Advisory Committee (JAC), composed of HWAC itself, AHMCL, representatives from the Nova Scotia Department of Transportation and Infrastructure Renewal Department, and WSP Canada, the independent maintenance engineer for the project. WSP Canada is a Montreal-based engineering company with a branch office in Nova Scotia.<sup>22</sup>

# Costs of the Highway 104 Western Alignment Project

THE HIGHWAY 104 Western Alignment P3 project was structured as a full-fledged DBFOM (Design, Build, Finance, Operate, and Maintain) contract. These costs of the project can be grouped in four “baskets” the 1) Design and Build costs; 2) Finance costs; 3) Operation costs; and 4) Maintenance costs.

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## 1. Design and Build Costs

In 2002 the Auditor General reported that, “The recorded cost of the highway, including some capitalized fees and interest costs incurred in the pre-operation period is \$124.6 million.”<sup>23</sup> In its annual reports HWAC says that the construction costs totaled \$112.9 million, so we can infer that the balance of \$11.7 million was for the capitalized fees and interest costs.<sup>24</sup>

The Auditor General’s report continued to say that in April 1999 an internal government report concluded that, “The design and construction costs of the toll road equaled what it would have cost if the P3 process had not been followed.”<sup>25</sup> In other words, had the project been undertaken with a conventional PSA public procurement model the costs would have been the same.

## 2. Finance Costs

The Auditor General’s (2002) report said, “The (\$124.6 million) project was funded by a \$27.5 million Federal government contribution, a \$27.5 million Provincial government contribution, and \$66.4 million of long-term debt issued by the Corporation.”<sup>26</sup>

The Nova Scotia government bundled the balance of the financing as part of the DBFOM P3 contract. What was the cost of this choice?

There were three private bonds that financed the project:<sup>27</sup>

- 1) A subordinate bond valued at \$5.5 million bearing an interest rate of 13.4%. This bond issue was purchased by the Province of Nova Scotia from funds in the provincial pension fund. The subordinate bond was fully repaid and was retired on 30 September 1999 from excess cash revenues were consistently greater than projected. Thus, repayment proved much faster than was initially planned.
- 2) A junior bond valued at \$9.9 million bearing an interest rate of 10.76%, repayable over a 15-year period; and
- 3) A senior bond valued at \$51.0 million bearing an interest of 10.13%, repayable over a 30-year period.

Both junior and senior bonds were issued by the Newcourt Credit Group and are now administered by CIT Structured Finance.

In 1996 Nova Scotia government bond yields on long-term (6+ years) debt yielded an interest rate of 5.7%. Below is a comparison of the two approaches to financing the project. See *Table 1* for a summary.

**TABLE 1** A Comparison of Interest Costs

	Total interest Costs via Private Financing	Total interest Costs via Government Bonds
Subordinate bond of \$5.5 million bearing a 13.4% interest rate payable monthly, repaid after 3 years	\$1,248,073	\$1,248,073
Junior bond of \$9.9 million bearing a 10.76% interest rate, payable quarterly, repayable over 15 years	\$9,350,800	\$3,156,612
Senior bond of \$51 million bearing a 10.13% interest rate, payable quarterly, repayable over 30 years	\$130,095,280	\$34,180,318
<b>Total</b>	<b>\$140,694,153</b>	<b>\$38,585,003</b>

The *additional* actual cost to Nova Scotia taxpayers for having financed the project through a PPP contract—above and beyond what it would have taken to finance it through a government bond issue—is **\$102,109,150**. This is a significant premium to pay—almost 81%—for a project whose capital costs (design and build) were \$126,500,000.

Beyond this, another question to investigate is, with \$55 million of equity in the project at the outset (i.e., 44% of the total design and build costs), are there other mechanisms whereby the provincial government could have financed the project? In 1996 the province of Nova Scotia's budget was \$4.246 billion (actual) and in 1997 \$4.241 billion. The highway was built over a two-year period in 1996 and 1997. So, if the remaining balance had been divided over two fiscal years, i.e., \$33.2 million/year, this would constitute 0.78% of the provincial budget.

Consider one example: in fiscal 1996–97 Nova Scotia's revenue (actual) from corporate income tax was \$112.310 million and individual income tax was \$951.921 million.<sup>28</sup> A feasible mechanism to accommodate this project in the provincial budget would be a small adjustment within the provincial individual or corporate income tax structures to increased income tax revenues by 2.9%.

It is worth noting that “Governments prefer opaque methods of raising revenue or expenditures to direct taxation. Politicians or elected officials may act as though they believe that voters do not exhibit rational expectations with respect to expenditures.”<sup>29</sup>

Ultimately all government revenues must come from taxpayers (with some inter-jurisdictional shuffling because of federal equalization and transfers). Is it really in the interests of citizens that these are raised by “opaque methods” rather than direct taxation through which people clearly see the results of their investments in the provincial economy? It's a point worthy of consideration.

A further point requires consideration: since the opening of the highway in November 1997, toll revenues have steadily been greater than initial projections. Between 15 November 1997 and 31 March 2018 a total of \$350,340,795 in tolls was collected. Surplus revenue has been accumulating in the accounts of the Highway 104 Western Alignment Corporation, divided into three accounts:

- i) The capital reserve account, the money to repay the principal and interest on the outstanding bonds;

- ii) A major maintenance reserve account, to pay for major maintenance costs (when required); and
- iii) A debt service reserve account, for use if the balance in capital reserve account were insufficient to meet quarterly payments on the outstanding bonds.

Of particular concern to us is the first of these, the capital reserve account. In 2018 the capital reserve account contained \$38,924,147, a sizeable sum. In contrast, the amount of debt remaining in the senior bond in 2018 (the junior bond was retired on 30 September 2007) is \$31,413,209, some \$7.5 million *less* than the money in the account to repay the debt. [Note: 2018 is the first year in which the capital reserve fund exceeds the bond debt.]

With the money to repay the bond debt sitting in the bank, why doesn't the Corporation simply pay it down and save paying interest from now until 2026 (when the senior bond matures)? According to the Auditor General (2002), "If debt is repaid, a 'market-make-whole premium' (a penalty for early debt payment) must also be paid." The Auditor General went on to recommend, "that the Corporation determine whether it is more beneficial to hold excess cash or repay outstanding debt."<sup>30</sup>

Such contractual restrictions are a common part of P3 contracts, guaranteeing bondholders profits for the entire projected term of the contract. Such a restriction significantly ties the government's hands, which would not be the case if the government issued its own bonds for the project and determined its own rules with respect to repayment terms. How costly is this? The final eight years of interest on the bond payments total **\$7,126,785**.

In 2016 NSTIR's executive director of finance, Diane Saurette had this to say: "Given the fiscal environment of the province, the department (NSTIR) has directed the corporation in 2014–15 and 2015–16 to not make additional prepayments."<sup>31</sup> The story also quoted Transportation Minister Geoff MacLellan as saying that the corporation saves no money by paying-down bonds early and that he doesn't know when tolls might disappear. He went on to say their decision will depend on revenue and costs but he expected it would happen before 2026.

In 2018, "Deputy Minister Paul LaFleche told members of the legislature's public accounts committee that the Transportation Department will need to gather a lot of information before recommending a course of action" including whether the tolls come off when the debt is paid off.<sup>32</sup>

Will the government decide to pay down the debt, incur the “market-make-whole premium,” and end the collection of tolls? While there are indications that it may, no formal announcement of this has yet been made. This situation illustrates the financial costs that governments must pay when their hands are tied by P3 contracts with respect to bond repayment terms and schedules.

A final point merits consideration: the *additional* P3 interest paid on the junior ( $\$9,350,800 - \$3,516,612 = \$5,834,188$ ) and senior ( $\$130,095,280 - \$34,180,318 = \$95,914,962$ ) bonds (i.e., a total of **\$101,749,150**), which is remitted to CIT Structured Finance, the bondholder’s representative, is money that exits the provincial economy and is a net loss to the province. It is paid to four insurance companies and one investment firm that are not in Nova Scotia. None of it recirculates in the provincial economy nor returns through taxation to the provincial coffers.

Financing through the issuance of bonds sold to out of province or out of country lenders inevitably results in such flows, a drain on the economy that governments should endeavor to minimize. The financial impacts of financing are enhanced if it can be structured to retain the funds within the local economy, as was the case with the subordinate bond that Province of Nova Scotia issued from funds in the provincial pension fund.

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### 3. Operational Costs

The Highway 104 Western Alignment Corporation (HWAC) subcontracted the operation of the toll plaza to the Atlantic Highway Management Corporation (AHMCL), now a subsidiary of Aecon. They employ about 40 people at the facility.<sup>33</sup> In 2018 operations (the of total expenses, minus maintenance costs and the facility operator’s fee) cost \$4,645,592. While the operational costs vary from year to year, based on the records to date and extrapolating to the end of the contract in 2026, these will total approximately \$106 million (i.e., about \$3.53 million a year).<sup>34</sup>

For the purposes of this study we assume that the employees’ salaries and other operational expenses related to the operation of the toll plaza would differ little whether the project had been delivered through a P3 or PSA approach. However, it is worth pointing out that if the government had financed the project in such a way so as *not* to require the collection of tolls (i.e., through general revenue), none of this expense would be required at all. If the highway had been financed through general government revenue then

no toll plaza would have to have been built or operated. The infrastructure for collecting tax revenues already exists, namely within the Finance and Treasury Boards Taxation Division.

Creating a separate infrastructure for the collection of revenues to pay for the project has a significant cost, in this instance approximately **\$106 million**.

Beyond the operational costs of the toll plaza is its infrastructure value and that of the tolling system. The toll plaza is currently valued at \$5,746,028 and the tolling system at \$3,520,616 for a total value of **\$9,266,644**.<sup>35</sup> If the project had been funded by regular government taxation and not by tolls there would have been no need to build and purchase any of this infrastructure.

In addition, the facility operator (AHMCL) charges a 10% “management fee,” which in 2018 was \$257,169. Again, this fee varies from year to year depending on the annual budget, however, based on the records to date, and extrapolating to the end of the contract in 2026, these fees will total approximately \$6 million over 30 years, i.e., approximately \$200,000 a year. If the government were operating the toll plaza itself, or indeed, if there were no toll plaza at all, then this would result in further savings of **\$6 million**. Therefore the sum of all three additional costs is \$121,266,644.

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#### 4. Maintenance Costs

As part of this P3 contract, the Highway 104 Western Alignment Corporation (HWAC) is also responsible for maintenance work for the highway. This was to have been the responsibility of AHCL, however HWAC subcontracted this work back to the province’s Transportation and Infrastructure Renewal (NSTIR) Department. This maintenance consists of snow and ice removal during the winter months, as well as line painting, guardrail replacement and repair, litter removal, and other routine maintenance to the highway. The fee paid for NSTIR to provide this service began as \$650,000 per annum and has been adjusted annually. As of 2018 it was \$1,559,661. While the Auditor General’s Report (2002) noted that that the government, as subcontractor, has recovered all direct costs, “the Department estimates that indirect and other costs associated with services provided to the Corporation could be in the range of 25% to 30% of its direct costs, and are not being recovered from the Corporation.”<sup>36</sup> In other words, the province of Nova Scotia is subsidizing the profit AHCL by funding these indirect and other costs which otherwise they would have been responsible to cover.

To date, the maintenance costs have totaled \$22,274,673. If the annual costs continue as they have in recent years, by the end of the term of the contract in 2026 they will have totaled \$34,578,233. If the indirect and other costs were 25% of this (conservatively choosing the lowest percentage) this would mean that the province will spend **\$8,644,558** more on maintenance of the highway than it will receive from payments for performing this service.

Beyond the ongoing routine maintenance of the highway, HWAC periodically undertakes “major” maintenance work. For example, in 2017–2018 they spent \$5,500,000 to resurface 19.4 kilometers of the route as well as \$275,700 to upgrade the tolling system and \$118,100 for upgrades to the Toll Plaza building.<sup>37</sup> These “major” maintenance projects are funded from the major maintenance reserve account (see above) in which a portion of income from the toll fees is held.

This situation highlights yet another problematic aspect of bundling multiple elements into a single P3 procurement contract. This major maintenance work is ‘sole source.’ There is no competitive bidding process involved in the costing and in the work that is undertaken. Does it provide good value for money? Could other contractors have done a better job or have done it for less? Nova Scotia taxpayers have no way of knowing since the P3 structure is not a competitive bidding system.

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## 5. Deferred Toll Revenues Cost

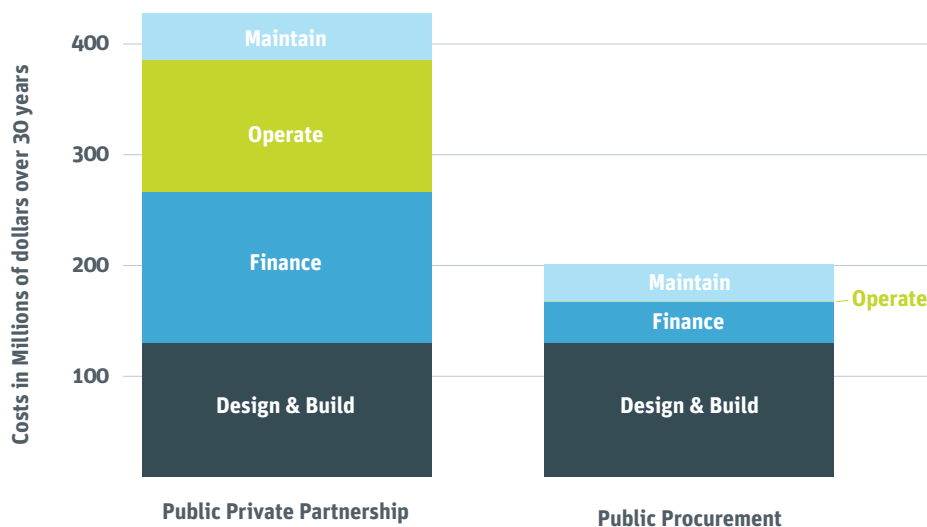
One further cost has arisen from this P3 project. The Auditor General’s Report (2002) noted that, “financing for the toll highway included commitments for regular toll increases.”<sup>38</sup> Since toll revenues were steadily greater than projected, the government asked the HWAC to defer planned toll increases for 2003 and 2004. The bondholders agreed (for a fee of \$80,000 plus \$10,000 in “expenses”) but the government was required to compensate the corporation annually for what was calculated to be the amount of additional revenue that AHMCL would *not* be collecting. These “deferred toll revenues” have averaged on the order of \$1.23 million since 2002. Except for the **\$90,000** initial cost to secure this permission from bondholder’s representative, this money isn’t actually lost to the province since it accumulates in the reserve accounts that are used for bond payments and major maintenance. Had the government been running the operation itself there would have been no need for any of this.



## Summary

As shown in *Figure 1* the total *additional costs* to Nova Scotia taxpayers of having developed the project as a P3 and of raising the revenue through tolls will be, over the 30-year span of the P3 contract, on the order of **\$226 million**.

**FIGURE 1** Highway 104 Western Alignment Comparative P3 to PSA Costs



Moreover, there is little evidence for any value derived from this additional cost. As the Auditor General’s Report (2002) concluded, “the design and construction costs of the toll road equaled what it would have cost if the P3 process had not been followed.” The report does say that, “the private partner employed creative solutions that were time savers,” however, “it was not determinable whether these creative solutions were cost savers.”<sup>39</sup>

In summary, employing a P3 approach to the project saved some time, and indeed the highway opened two-weeks ahead of schedule. That said, two weeks over a two-year construction period is only 2% ahead of schedule.

Not only did the design and construction via a P3 approach save no money, the financing, operations, and maintenance of the Highway via this P3 contract will cost Nova Scotians \$226 million more than if the government had simply used public procurement and paid for the cost through regular avenues of general taxation, avoiding using a toll which is an opaque and inequitable method of raising revenues.

# Other Considerations: Accountability and Safety

THERE ARE SEVERAL other non-monetary repercussions of having pursued this project as a P3.

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## Accountability

By statute HWAC does not pay taxes and is exempt from the Public Utilities Act, the Freedom of Information and Protection of Privacy Act, and the Provincial Finance Act.<sup>40</sup> The exclusion from the Public Utilities Act means that increases to toll rates are not subject to a regulatory hearing and review process through the Utilities and Review Board (URB), which would otherwise be required. If HWAC were required to do so it would have to provide financial justifications for rate increases and the process would be subject to scrutiny through a public hearing.

The exclusion of HWAC from the Freedom of Information and Protection of Privacy Act means that the public cannot use the Freedom of Information (FOIPOP) process to obtain information about HWAC and its operations. HWAC does prepare an annual report together with audited financial statements, and it does maintain a public website<sup>41</sup> where this information is available. It has also been twice (in 1996<sup>42</sup> and in 2002) audited by the Auditor General

and these audits are public documents. Nonetheless, exemption from the Act does mean that if the public wanted additional information about the operations of HWAC it could not seek to acquire them through the FOIPOP process in contrast to the availability of such information with respect to Nova Scotia government entities.

There is a second dimension to the more limited public accountability of HWAC. The Auditor General's Report (2002) noted that, "the Corporation has no direct accountability to the House of Assembly of Nova Scotia." This is especially concerning because as the Auditor General asserted that, "the Corporation should be accountable to the House of Assembly since the Corporation is owned and controlled by the Province and is managing an asset situated on provincially-owned land." Being accountable to the House of Assembly would require scrutiny of financial and non-financial reports by elected members of the Legislature.

As it stands HWAC reports directly only to the bondholder's representative (CIT Structured Finance) and the Joint Advisory Committee, which includes the Executive Director of Highway Engineering and Construction (a civil servant) in the Transportation and Infrastructure Department. This doesn't mean that the Members of the Legislative Assembly (MLAs) cannot ask questions about the operation of HWAC (for example during the budget estimates process), however, there is no information on HWAC provided to MLAs—the norm when it comes to the activities of all provincial departments and agencies. This a standard of accountability that embodies the responsibility the government has to its citizens, which includes being as transparent as possible about how it spends tax dollars.

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## Highway Safety

HWAC continues to report the annual total number of collisions and the breakdown of these into fatal collisions, collisions that resulted in injury, and collisions that resulted in property damage only.<sup>43</sup> This is useful information; however it is not presented in such a way so as to make it possible to determine if highway safety is improving or how this compares with other sections of Highway 104. The Auditor General's Report (2002) noted that: "NSTIR compiles statistics on highway deaths and accidents. However, at the time of our audit, neither the Corporation nor (NSTIR) had studied or reported upon statistical trends relating to the safety of the Highway 104 Western Alignment."<sup>44</sup>

For example: if the raw number of yearly accidents were statistically normalized to the amount of traffic per year and adjusted to a per kilometer basis and then compared against (for instance) the previous accident rate on Highway 104 before the highway alignment and/or with other sections of four-lane divided highway in Nova Scotia, this would allow one to determine how the rate of accidents has changed over time and if the design and maintenance of the Highway 104 Western Alignment are as good as, better, or worse than that of Highway 104 elsewhere (or, indeed, other comparable highways). Without such data it is not possible to address these questions. Has safety been addressed as well as it could have on the Highway 104 Western Alignment? We don't know.

In summary: the P3 approach to highway procurement has cost Nova Scotia much in excess of what a public procurement approach would. While there is no doubt that a four-lane divided highway was desirable for this section of Highway 104—for safety and other reasons—there is no evidence that a P3 approach provides a safer highway than a public procurement approach would have. Combined with other considerations noted above, there seems to be no discernible advantage to employing P3s, and a considerable disadvantage in terms of the tax burden that this imposes upon Nova Scotians.

# The Sutherlands River– Antigonish Highway 104 Expansion: What will the future bring?

BEARING IN MIND what we learned from the analysis of the Highway 104 Western Alignment project, it is instructive to consider future highway expansion plans in Nova Scotia. In April 2017 the Nova Scotia government announced that it would be twinning (i.e., expanding existing two-lane highways into four-lane divided highways) sections of four 100 series highways in the province:<sup>45</sup>

- 1) A 37.75 km section of Highway 104 between Sutherland’s River and Antigonish. This will include 10 km of completely new road between Barney’s River and James River together with twinning 28 km of existing road;
- 2) A 22 km section of Highway 103 between Tantallon and Hubbards;
- 3) A 9.5 km section of Highway 101 between Three Mile Plains and Falmouth; and

- 4) An 8.7 km extension of Highway 107 (Burnside Connector), which is a new construction.

The provincial government announced that it would invest \$390 million in these projects in addition to its normal highway construction budget. It also announced that it anticipated that the cost for all four projects would be \$665 million, and they are all scheduled to be completed by 2024.<sup>46</sup> The provincial government estimates the construction costs of the highway 104 expansion at \$285 million.<sup>47 48</sup>

At the same time, it announced that this Sutherland's River-Antigonish Highway 104 expansion would be delivered as a P3 project. Consequently, it is worth examining this project in light of what has been learned in developing the Highway 104 Western Alignment as a P3 project.

The Sutherland's River-Antigonish project is still early in its development. On 23 July 2018 the Nova Scotia government issued a RFQ (Request for Quotation) for it. On the 24 January 2019 it announced that three partnerships had qualified to bid on the contract: Atlantic Safelink Partners, Dexter Nova Alliance, and Osprey Transportation Solutions.<sup>49</sup>

- Atlantic Safelink Partners is a consortium comprised of seven partners: Fengage Asset Management (a financial group based in Toronto), VINCI Construction (based in France), Parsons (a Nova Scotia contractor based in Lunenburg County), Eurovia (a transportation subsidiary of VINCI), Wood Canada (a Scottish company with a Canadian branch), Northern Group (a construction company based in Grand Falls, New Brunswick), and Zutphen (a Nova Scotia contractor based in Mabou).
- Dexter Nova Alliance is collaboration between Dexter Construction (based in Bedford, Nova Scotia) and Nova Construction (based in Antigonish, Nova Scotia). Information on the financial partner of this bid is not available.
- Osprey Transportation Solutions is a transportation company based in Bristol, England. Information on its local construction partners or financing partner is not available.

These three consortia have been invited to submit an RFP (Request for Proposal), by 30 October 2019. The "preferred proponent" (i.e., the winning bid) will be announced in January 2020, with contract negotiations and financing to be completed by March 2020.

What we know thus far about this project yields instructive similarities and differences between the 1996 Highway 104 Western Alignment project and the proposed Sutherland's River-Antigonish Highway 104 expansion.

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## 1) Financing

The RFQ instructions<sup>50</sup> says that the expected concession period will be for twenty years but gives the winning consortium the reserved right to extend the concession period for “up to two separate additional five year terms year concession.” A start date has not been announced but the RFQ specifies that, “substantial completion of the project is expected no later than 2023.”

The Nova Scotia government also anticipates the construction costs of the project will be \$285 million and the federal government has committed \$90 million to this project through the New Building Canada Fund. This leaves a balance of \$195 million. The province has not yet announced how much of its own equity it will invest in the project and consequently how much in private financing will be required, nor do we know what interest rates will be attached to these private bonds.

Long-term (30-year) government bonds now carry lower interest rates (2.75%)<sup>51</sup> than they did in 1996 (5.7%). Not knowing how much private financing the province will seek or what rates these bonds will carry we cannot project how much this private financing will cost. However, the time period (effectively 30 years) is the same as Highway 104 Western Alignment project and in that project private financing was **3.6 times** as expensive as government financing would have been.

As an illustration, supposing that this project seeks the same degree of private financing (53%) that the Highway 104 Western Alignment project did, and that the bond rate differential (private bond rate/government bond rate) is also the same as in 1996 (178% for the senior bond). What would the financing costs over the 30-year term of the contract be and how much extra would it cost if financed via a P3 versus a PSA approach?

Thus, 53% of \$285 million is \$151 million and  $2.75\% \times 1.78 = 4.90\%$ .

At 4.90% interest a 151 million private bond financed over 30 years would result in total interest payments of \$137,503,045.

At 2.93% interest a 151 million government bond financed over 30 years would result in total interest payments of \$70,919,906. In this illustration, employing private financing for this project would cost **\$66,583,139** more than it would to finance this same amount by way of government bonds.

As noted above, the specifics of the financing have yet to be announced so these figures are simply an illustration, but what they do underscore is that even with the current lower interest rates, financing through private bonds carries a very significant premium compared to financing through government bonds.

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## 2) Design and Construction

The Nova Scotia government has said that it anticipates the cost of the project as a P3 contract will be **\$285 million**. How does this compare with the average costs of highway building through regular public procurement?

A highway twinning study by CBCL<sup>52</sup> in 2016 examined the proposed twinning of eight sections of highway including the Sutherland's River to Antigonish Highway 104 proposal. It calculated a proposed per kilometer cost (including construction and the purchase of land and water rights) of \$6,156,291 for a total cost of **\$232.4 million** for this 37.75 km section of highway. The Nova Scotia government has said that it anticipates the cost of the project as a P3 contract will be **\$285 million**. Thus the proposed P3 development of the project is forecast to cost **\$52.6 million more** than one delivered by normal government procurement, effectively the “profit” that the government expects to offer the construction contractors of the winning bid.

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## 3) Operational Costs

The government has specified that this P3 project will not employ tolls.<sup>53</sup> This decision appears to be in large measure a result of public consultations conducted in 2015 by MQO Research.<sup>54</sup> A total of 1,911 Nova Scotians participated in 14 public sessions held across the province and the consultants received 5,300 “pieces of written feedback.” In their summary of conclusions MQO (2017) wrote that:

“Thus, in general, people who provided their feedback wanted safer highways, and most did not want to pay a toll for this benefit. There is an expectation that all Nova Scotians should contribute to the cost of highway infrastructure. The exception ... was residents along the 104 who appear to be willing to embrace the concept of tolling to twin sooner.”

Given the steep cost of building (\$9,266,644) and operating (\$106 million over 30 years) a tolling facility as part of the Highway 104 Western Align-



ment project, this would appear to be a sound financial move. Paying for government programs and infrastructure through the collection of general revenue, the infrastructure for which already exists within the Department of Finance, means virtually no additional costs are required.

The 2018 RFQ for the Sutherland’s River-Antigonish Highway 104 expansion describes it as being to “Design, Build, Finance, Operate, and Maintain” the facility, although it is unclear what if any operational components this entails (aside from maintenance as discussed below).

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#### **4) Maintenance Costs**

This is an area in which the Sutherland’s River-Antigonish Highway 104 expansion project differs significantly from the Highway 104 Western Alignment one. In the case of the latter, the maintenance of the highway was subcontracted back to the government’s NSTIR for the duration of the project. For the Sutherland’s River-Antigonish project the government proposes that the P3 consortium undertake not only the maintenance of the new section of the highway (37.75 kms), but also of “9.3 km of existing divided highway between East River Road, New Glasgow and Exit 27, and for the recently completed 16 km Antigonish bypass (Addington Forks Interchange to approximately three kilometers east of Exit 34 in Lower South River).”<sup>55</sup> Thus, a total of 63 kms of highway (new and existing) would be bundled into this P3 contract. This appears to be an inducement for potential contractors to undertake the project. There is as yet no indication of what the price tag for such a contract might be.

CBCL (2016) examined several highways and calculated a range of “Operations, Maintenance and Rehabilitation Costs” of between \$52,000 and \$84,000 per kilometre.<sup>56</sup> However, these per kilometer costs include operations costs (for example tolling, which this project will not employ) and rehabilitation costs (which, in the case of the Highway 104 Western Alignment Project are contractually addressed separately through the major maintenance fund; there is as yet no indication of how they will be addressed in the Sutherland’s River–Antigonish project) grouped together with maintenance costs, so these per kilometre figures are not comparable to maintenance only costs.

To focus solely on maintenance costs, NSTIR is currently being paid \$34,660 per kilometer to provide maintenance on the Highway 104 Western Alignment section.<sup>57</sup> If one adds 25% to cover the further indirect costs of

maintenance that NSTIR says they are currently not receiving (see the earlier discussion on maintenance costs for the Western Alignment project) then the per kilometer cost increases to \$43,325. For a 63 km section of highway this would amount to \$2,729,475 per annum (initially, then indexed to inflation).

An important question arises as a result of this. Given that NSTIR already has a substantial amount of expertise, equipment, and staff dedicated to the maintenance of Nova Scotia highways (approximately 23,000 kms of roads and 4,100 bridges), and it contracts to private operators as required to supplement this capacity,<sup>58</sup> why would it be efficient or in the interests of Nova Scotians to develop a parallel system of doing so on a single 63 km section of Nova Scotia highway? Moreover, NSTIR is already providing maintenance for the highway that currently exists.

In this regard the experience of Ontario is instructive. The Auditor General of Ontario reported in 2015<sup>59</sup> that in 1996–1997 Ministry of Transportation outsourced winter highway maintenance to private contractors. Over the next 13 years the per kilometer costs increased from about \$2,700 per kilometer to \$4,200 per kilometer. Annual inflation over this time period was 1.97% so adjusting 1996 dollars to 2009 dollars yields \$3,500. Thus, winter maintenance cost grew by about 20% more than the cost of inflation. Concerned with the trend of these increases the Ministry changed its contracts to so-called “performance-based” Area Maintenance Contracts (AMC). This resulted in an immediate cost reduction of about 32% in the following year. However, as the Auditor General’s Special Report (2015) noted:

“After the performance-based AMCs were introduced, winter maintenance service levels across the province decreased, leading in some cases to hazardous driving conditions. This created significant safety concerns both among the general public and for those delivering emergency services such as the Ontario Provincial Police (OPP).”<sup>60</sup>

Indeed, it was these concerns that lead the Ontario Legislature’s Standing Committee on Public Accounts to ask the Auditor General for a review of the program. The Auditor General identified a large number of specific problems—contractors using less equipment, using fewer treatments, patrolling less often, etc.—however the general lesson was that using private contractors for highway maintenance resulted in either continually increased costs (above Ministry costs) beyond the inflation rate, or—if costs were controlled—diminished maintenance of highways which resulted in hazardous driving conditions and safety concerns.

This is an important object lesson in what contracting out maintenance of important infrastructure to the private sector can result in, in terms of

safety—a lesson the Nova Scotia government would do well to heed. Devolving core responsibilities of government to the private sector should be carefully scrutinized. Indeed, there have been recent moves to bring services back in house, whether to save costs, improve quality, or because of problems with contracts or need for great flexibility.<sup>61</sup>

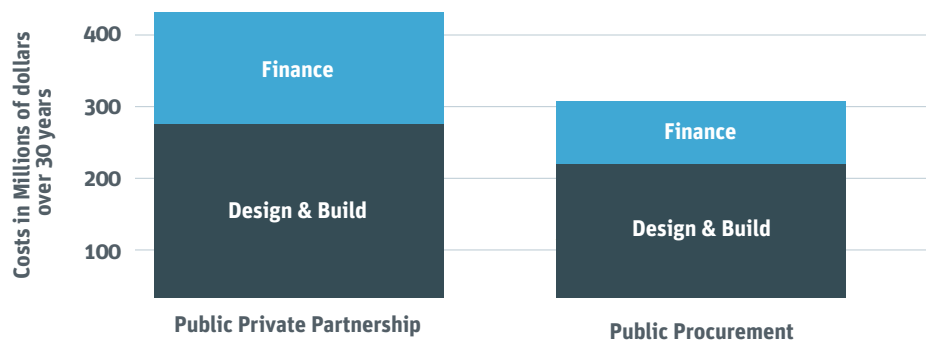
One final point: the Highway 104 Western Alignment project, “major maintenance” (i.e., above and beyond regular annual maintenance) is funded by the “major maintenance reserve account.” A proportion of toll fees are directed into this account, which is then drawn upon periodically by HWAC to pay for major work (such as re-paving sections of the highway). This maintenance is then delivered via NSTIR and/or private contractors via conventional contracts for services provided. In the case of the Sutherland’s River-Antigonish Highway 104 expansion project there will be no such account since no tolls will be collected. The RFQ (2018) says that:

“Life cycle replacement and/or rehabilitation of all components of the Project within the extents of the operations and maintenance scope will be required. Older bridges and major structures are planned to be designated for replacement either during the initial construction period or over the period of the concession, specific information and requirements will be provided as part of the RFP.”

The question will be, what additional P3 premium will Nova Scotian taxpayers have to pay for the procurement of this “major maintenance” through a P3 vehicle rather than through conventional public procurement?

Figure 2 is an illustration of what can be said at this point in terms of comparative P3 to PSA costs for this Sutherland’s River-Antigonish highway expansion project. Since there is as yet no indication of maintenance costs these cannot be included.

**FIGURE 2** Sutherland’s River–Antigonish: COMPARATIVE P3 TO PSA COSTS



# Highway Safety: Private Profit vs. Public Good

NOVA SCOTIANS IDENTIFY safety as a primary objective with respect to both highway construction and maintenance. As the MQO (2017) consultation reported, “people who provided their feedback wanted safer highways, and most did not want to pay a toll for this benefit.”<sup>62</sup> This is true of highways in general, and perhaps particularly so in regard to the Sutherland’s River-Antigonish Highway 104 expansion. This section of highway was reported to have had over 321 accidents since 2009 including 14 fatalities<sup>63</sup> and a divided highway would be expected to reduce some of the problems that led to accidents.

CBCL (2016) conducted an analysis of the degree to which twinning of highways could be expected to reduce the number of collisions. This was based on, “elimination of intersection-related angle and head-on collisions and some reduction in single-vehicle, rear-end, and sideswipe collisions.”<sup>64</sup> On the Sutherland’s River-Antigonish expansion it estimated that the collisions per year could be reduced by 29.6%.<sup>65</sup> It’s important to emphasize that this prospective reduction applies simply to the twinning of the highway whether that twinning is delivered via P3 or through public procurement. There has been no study of highway safety in Nova Scotia that compares these two different procurement approaches.

That said, there has been some blurring between the obvious need to improve an unsafe section of highway, and the contractual mechanism

whereby highways are delivered, i.e., P3 versus PSA. At the announcement of the federal contribution to this project (MacInnes 2018),<sup>66</sup> Nova Scotia premier Stephen McNeil said that, “The project will be constructed with a public private sector model. He said that there are some opponents to this approach, but that, ‘It was straight and simple for us. It was about saving lives.’” This is an obvious *non sequitor* since, as outlined earlier, there are no data in Nova Scotia to support the contention that a P3 contract has produced a “safer” highway in the Western Expansion than a PSA would have, or indeed that it is safer than any other section of twinned highway in the province. And, as the experience in Ontario has shown (above), privatizing highway maintenance has had a deleterious effect on highway safety.

In announcing the federal contribution to the Sutherland’s River-Antigonish expansion, Canadian Prime Minister Justin Trudeau said, “Not only will this project alleviate the bottle neck and get more vehicles moving, but most importantly it will reduce the risk of fatalities along this highway by 80 per cent.”<sup>67</sup> There appears, however, to be no source for this metric of 80%.

Heather Whiteside conducted an examination of this issue in Ontario in 2005 with respect to Highway 407, which was developed as a P3.<sup>68</sup> This drew, in part, on a 1999 report conducted by the Professional Engineers of Ontario that reviewed the safety of this P3 highway project.<sup>69</sup> It was carried out by six civil engineers with expertise in highway design.

Both studies highlighted concerns: substandard stopping distances on ramps; problems with exit and entrance terminals; smaller than usual medians; the design of loop ramps; a lack of crash cushions around lighting poles and bridge supports; the shape of highway shoulders; inadequate signage; and a lack of rumble strips. The committee concluded that these had arisen because, “Cost cutting opportunities were ... pursued at the expense of public good.”<sup>70</sup>

A second major finding was that the complicated and segmented nature of the P3 approach made it difficult to establish which public or private agency had the role of the “guardian of public safety.”<sup>71</sup> This was contrasted to the traditional process of highway construction (i.e., via public procurement) in which safety was the clear responsibility of the appropriate government department, in that case the Ontario Ministry of Transportation.

Now, none of this is to say that such problems will of necessity occur in Nova Scotia with regard to the Sutherland’s River-Antigonish Highway 104 expansion. However, what this study does indicate is that there are potential conflicts between the imperatives of public safety on the one hand, and the cost saving imperatives of private sector developers on the other. Moreover,

the complicated structure of P3s can make discerning responsibility and accountability more complicated. If the government undertakes a project through public procurement, it has such responsibility and accountability, and the obligation and enforcement power, to ensure that safety is not treated as subordinate to other consideration.

# Public Accountability means Public Scrutiny

KEY TO EFFECTIVE democracy is accountability, and central to accountability is information. If information is not available, or the conduct of government is shrouded in obscurity, how are citizens to know the costs, benefits, effectiveness, and efficiency of government practices and programs? Public scrutiny is essential to good governance.

For example, in context of investigating how the government proposed to determine the Value for Money (VfM) for this project, the Canadian Union of Public Employees submitted a freedom of Information (FOIPOP) request for a copy of a report that the government had done on this topic.<sup>72</sup> Such VfM assessments are increasingly used to promote P3 projects. However, an analysis of such projects in British Columbia has shown, “These reports are so subjective, so susceptible to manipulation by vested interests, so complicated, and so consistently withheld from appropriate public scrutiny that they must be done by the Auditor General’s office to be of any legitimate use.”<sup>73</sup> Consequently it is of critical importance to be able to examine such documents.

What the government provided in response was patently absurd. Of the 119 paged report the government provided page one—with all the numbers redacted. Pages 2-119 were withheld. In other words, no information for public scrutiny whatever. Moreover, if this project becomes—like the Highway 104 Western Expansion—excluded by statute from the Freedom of Information and Protection of Privacy Act, even making such a request will become impossible. This is the antithesis of openness and transparency making it impossible for citizens to know the basis on which the government is making decisions on their behalf, and whose money it is spending in the process.

# Conclusions

THE OBJECTIVES OF this study were three-fold:

- 1) To examine P3 highway procurement and delivery in a Nova Scotia context and ascertain if this approach has advantageous elements compared to traditional public procurement (PSA);
- 2) To specifically examine the Highway 104 Western Alignment P3 project to clarify what was delivered as a result of the P3 contractual approach and at what costs; and
- 3) To apply what was learned above to a consideration of future highway construction in Nova Scotia, in particular to the Sutherland's River-Antigonish Highway 104 expansion, which the provincial government has announced will be developed as a P3 project.

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## What have we learned?

Boardman et al. (2016) and Boardman and Vining (2012)<sup>74</sup> both argued that the measure of whether P3s are worthwhile for governments to undertake, “should be based not on whether they come in on time or on budget, but whether they increase social value relative to a PSA.” Do P3s provide more social value than traditional government procurement? On close examina-



tion the advantages that are often cited to support P3 developments—project delivery on time and on budget; cost saving; risk allocation to the private sector; provide now, pay later—have little to recommend them. They provide either no advantage or are as easily achievable through traditional government procurement. Moreover, there are significant disadvantages to P3s, notably the much higher costs of financing and the ways in which governments' hands are tied by long-term P3 contracts resulting in significantly less operational and financial flexibility.

An examination of the Highway 104 Western Alignment P3 project illustrates these drawbacks, notably the total *additional costs* to Nova Scotia taxpayers of having developed the project as a P3 and of raising the revenue through tolls will be, over the span of the 30-year P3 contract, on the order of **\$232 million**. This is a steep premium for Nova Scotians to pay for a project whose design and construction costs were \$124.6 million. This includes significant additional costs for the financing (**\$102,109,150**), operations (**\$121,266,644**), and maintenance (**\$8,644,588**) in addition to **\$90,000** paid to the bondholders' representative to accept a waiver of toll increases.

It also merits noting that \$100,861,077 of the additional financing costs (for the junior and senior bonds) is money that exits the provincial economy and is a net loss to the province.

Moreover, except for some time saving solutions employed by the private partner that resulted in the project being completed two-weeks ahead of schedule (over a time span of two years) it is difficult to see any other advantage that this \$226 million premium delivered beyond what could have been achieved had the project been developed through traditional government procurement methods (i.e., as a PSA).

Beyond the financial aspects of the project are other considerations. There is more limited public accountability under a P3, namely its exclusion from such legislation as the Public Utilities Act and the Freedom of Information and Protection of Privacy Act. Moreover, the Corporation (HWAC) does not report directly to the Nova Scotia Legislative Assembly.

Our prospective look at the Sutherland's River-Antigonish Highway 104 Expansion project, also planned as a P3, reveals some similar concerns. What information has been released on construction costs indicates that Nova Scotia taxpayers may pay a steep premium in financing costs, on the order of **\$66.6 million more** in interest than it would cost to finance the project through government bonds. Also, the construction costs of the project as a P3, announced as \$285 million, are some **\$52.6 million more** than highway construction costs that government currently pays for constructing identi-

cal lengths of twinned highway through normal government procurement. These two items alone could add on the order of \$119 million in extra costs to the project.

Not charging tolls, and hence not needing to build a toll collection infrastructure to be operated for the duration of the contract, will certainly be a cost-saving measure for the government. On the other hand, the extensive maintenance (regular and periodic major maintenance) requirements for this project, including bundling additional pre-existing sections of Highway 104 into the P3 project, raises the possibility of significantly higher costs for this element of the P3 project.

Finally, although highway safety is something that Nova Scotia citizens identify as of key importance, there is no evidence that the procurement and delivery of highways via P3s results in highways that are any safer than those built through traditional public procurement, and which are operated and maintained by the government.

Furthermore, given the experience of the P3 development of Highway 407 in Ontario, where significant safety shortfalls attributed to cost cutting measures were identified, it would be prudent for the Nova Scotia government to subject P3 highways—past and future—to critical examination to ensure that safety is adequately addressed.

This examination of the P3 approach relative to the procurement and delivery of highways in Nova Scotia concludes that there is no convincing evidence that social value has been increased, and very convincing evidence that a large financial premium has been paid (in the case of the Highway 104 Western Alignment) and may well be paid (in the case of the Sutherland's River–Antigonish expansion) for having employed a P3 approach rather than having employed traditional public procurement.

# Recommendations

THE NOVA SCOTIA government should cease using P3s to procure highways and continue to employ traditional public procurement, for the following reasons:

- P3 procurement of highways offers no cost savings or any other discernible advantages in regard to the design and building of highways, and indeed the approach may cost more;
- Financing of highways by private equity certainly costs much more than financing by government bonds;
- Maintaining highways by contracting out services through a P3 is more expensive than public procurement, has potentially deleterious consequences in terms of highway safety, and needlessly duplicates a service that the provincial government already has in place through their own in-house facilities, equipment, and staff.

While this report focuses primarily on the cost disadvantage of using the P3 for the Highway 104 Western Alignment project, the analysis is based on a conservative estimate of some of the components of the model. Should the government choose to release the full Value for Money analysis of the Sutherland's River–Antigonish Expansion project with all of the costing and assumptions, along with the qualitative assessment of using a P3 over a public procurement model, this could then inform a fulsome public policy debate on this topic. Given that this latter project is still at the RFQ stage

(i.e., no final decisions have been made and no contracts signed), there is still time to have an open meaningful public discussion. As it stands, our recommendation is to oppose the P3 model for this new highway expansion.

One of the reasons we recommend that the government cease using P3s is the lack of transparency and thus accountability surrounding this use of model. The assumption should be that any public infrastructure or service should remain fully in the public sphere.

In order for a P3 to be proposed, the government should conduct a full lifetime cost projection of delivering the project using a P3 compared to a public alternative of the same level and quality of service—and it must publicly release such information, including assumptions about the risk transfer. In the absence of a ban on using P3s, legislation to this effect should be enacted. Such legislation could be modelled after the Manitoba “Public-Private Partnerships Transparency and Accountability Act.”<sup>75</sup>

# Glossary and Acronyms

<b>AHC</b>	Atlantic Highway Corporation
<b>AHMCL</b>	Atlantic Highway Management Corporation Limited
<b>AMC</b>	Area Maintenance Contract
<b>BOOT</b>	Build-Own-Operate-Transfer, a type of P3 project.
<b>BOT</b>	Build-Operate-Transfer, a type of P3 project.
<b>CBC</b>	Canadian Broadcasting Corporation
<b>CBRM</b>	Cape Breton Regional Municipality
<b>CHIC</b>	Canadian Highways International Corporation
<b>COGO</b>	Company Owned–Government Operated, a type of P3 project.
<b>DBFOM</b>	Design, Build, Finance, Operate, and Maintain, a type of P3 project.
<b>FOIPOP</b>	Freedom Of Information and Protection of Privacy
<b>GOCO</b>	Government Owned–Company Operated, a type of P3 project.
<b>GPA</b>	Government Procurement Agreement
<b>HWAC</b>	Highway 104 Western Alignment Corporation
<b>JAC</b>	Joint Advisory Committee
<b>NSTIR</b>	Nova Scotia, Transportation and Infrastructure Renewal, a provincial government department in charge of (amongst other things) road and highway construction and maintenance.
<b>P3</b>	Public–Private Partnership
<b>PPP</b>	Public–Private Partnership
<b>PSA</b>	Public Sector Alternative, i.e., traditional government procurement.
<b>PSPC</b>	Public Services and Procurements Canada, a Canadian government department.

<b>SPV</b>	Special Purpose Vehicle, a corporate entity created to develop a P3.
<b>RFP</b>	Request for Proposal, a request for a bid on a project.
<b>RFQ</b>	Request for Qualifications, a request for information to qualify a bidder.
<b>TPW</b>	Transportation and Public Works, the former name of the Nova Scotia government department now known as Transportation and Infrastructure Renewal (NSTIR).
<b>URB</b>	Utilities and Review Board
<b>VfM</b>	Value for Money

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