

Expediting the George Massey Crossing Project (2020)

Opening Statement

British Columbia is Canada's Asia Pacific Gateway and our economic competitiveness relies heavily on the well-maintained capacity within our port, air, rail, and roadway infrastructure. Thus, it is imperative that the Province ensures the efficient flow of people and goods throughout the region to increase our regional, provincial, and national prosperity and quality of life. The George Massey Tunnel is a critical artery of the BC transportation network that urgently requires replacing.

BC's competitive position as a trade and transportation-based economy must be actively protected, and continuously improved upon. While efforts to replace the George Massey crossing are underway, it is important that it is delivered expeditiously and that the principles of value for money, total capital cost, technical viability, difficulty, safety, and time to implement should be the key considerations for the replacement project.

Background

With the addition of one million people to BC's population over the next ten years,¹ and continued growth in trade, more people will be travelling and goods moving through the region. Therefore, it is important that major infrastructure projects provide the capacity to meet future demands.

George Massey infrastructure is a critical link in the Highway 99 trade corridor, connecting our region to the U.S. Interstate highway, the BC Ferries Terminal in Tsawwassen, the Deltaport container terminal, and Vancouver International Airport in Richmond. In addition to significant goods movement, up to 92,000² vehicles commute daily via this corridor, and this demand will continue to rise as the population South of the Fraser continues to increase.

The replacement of the current George Massey Tunnel (GMT) has been one of the region's top regional infrastructure priorities for many years. The local businesses and firms that support, operate and rely on the Province's Gateway sector view the replacement of the current tunnel as a top priority, focusing on the timeliest replacement possible. In addition to capacity needs for the goods movement sector, many of these businesses have raised safety concerns with a tunnel solution for this crossing.

Any delays in upgrading this key link will only exacerbate our region's existing problems with congestion, travel time, access to labour resources in adjacent municipalities, and regional emergency response capabilities. Delays and the costs associated with the inefficiencies of congestion are forcing businesses to look at all options to relocate, which is resulting in businesses leaving the province in search for places that are cheaper and easier to operate in.³ Thus, the replacement of the current tunnel is critical to the continued economic competitiveness of the region.

1 <https://vancouverisland.ctvnews.ca/full-text-2020-b-c-speech-from-the-throne-1.4807612> Accessed: February 12, 2020

2 https://engage.gov.bc.ca/app/uploads/sites/52/2020/02/EXEC-SUMMARY-GMC-rpt-01-gen-cowi_Final_report_Rev0E_19-Dec-2019-w-cover-1.pdf

3 <https://globalnews.ca/video/4779728/london-drugs-considers-moving-headquarters-out-of-richmond>

Currently, the GMT presents significant challenges to the movement of goods, particularly as it pertains to delays from congestion and the inability of the GMT to accommodate over-dimensional shipments or trucks carrying dangerous goods, such as fuel. These congestion delays and limitations force trucks to use alternate routes resulting in additional travel time and fuel consumption, increased congestion on other corridors, extra greenhouse gas emissions, and elevated safety risks, by forcing trucks to travel longer distances. These costs and externalities are ultimately borne by consumers and residents of the region. Additionally, while removing reliance on single-occupant vehicle use could alleviate some congestion in the short-term, neither the province⁴ nor the region's⁵ public transit plans contain sufficient investments in transit to provide viable alternatives for commuters.

The tunnel also poses significant safety concerns, and the WSP|MMM Group's 2016 report indicated it would require extensive upgrades to meet today's seismic standards⁶. The tunnel is extremely difficult for emergency vehicles to access if an incident occurs, and the transportation of dangerous goods is currently prohibited through the tunnel. These concerns led to the 2019 option being presented for the current tunnel being used only as a utility corridor.⁷

Current Context

In July 2019, the Mayors' Task Force endorsed a short list of six options, based on the ministry project team's high-level assessment of eight possible project options. In September 2019, the project team further narrowed down the shortlisted options to two:

- an 8-lane bridge with multi-use path (MUP), and
- an 8-lane immersed tube tunnel with (MUP)⁸

On November 1st, 2019 Metro Vancouver's board of directors voted to endorse an eight-lane, immersed-tunnel configuration for the Massey Tunnel replacement, following the recommendation by a Task Force. The Task Force was presented with a summary of the three contemplated technologies which included an estimated schedule for environmental assessments (EA) and construction timelines. The immersed tube timeline was three years for the EA and five years for construction, under ideal conditions, while the long-span bridge was two years for an EA and five years for construction.⁹ A difference of at least one year.

While these time frames for completion were given, there was no discussion of the certainty of those time frames and the resulting impact on cost. The long span bridge option, in a previous form, had already received environmental approval.¹⁰ Given the existing and valid environmental certificate for a larger structure, it is likely that the EA process for a smaller bridge could be completed well within the two years, if not more expeditiously. Conceivably, the environmental assessment for the bridge will also be less costly. As the report from ministry staff stated: "the environmental assessment is expected to be the least complex, as much, but not all, of the assessment would be similar to the previous 10-lane bridge."¹¹

The proposal for an immersed tube tunnel appears to have greater uncertainty around environmental impacts to the river and surrounding lands. The same report from the ministry noted "the immersed-tube

4 <https://vancouverisland.ctvnews.ca/full-text-2020-b-c-speech-from-the-throne-1.4807612> Accessed: February 12, 2020

5 <http://www.metrovancouver.org/services/regional-planning/PlanningPublications/RGSAdoptedbyGVRDBoard.pdf>

6 <https://engage.gov.bc.ca/app/uploads/sites/52/2017/02/GMT-Review-of-Replacement-Options-July-2016.pdf>

7 https://engage.gov.bc.ca/app/uploads/sites/52/2020/02/APPENDIX-A-GMC-mem-02-ext-cowi_Existing_tunnel_Rev0A_20-Nov-2019.pdf

8 <https://engage.gov.bc.ca/masseytunnel/overview/>

9 http://www.metrovancouver.org/boards/GVRD/RD_2019-Nov-1_MIN.pdf

10 <https://news.gov.bc.ca/releases/2017ENV0011-000293>

11 http://www.metrovancouver.org/boards/GeorgeMasseyCrossingTaskForce/GMA_2019-Oct-2_MIN.pdf

tunnel options...require around 1km of tunnel, a large staging area and removal of 1.5 million cubic meters of salt-contaminated soil during construction. These options would have the greatest environmental impact during construction as the approaches would require excavation on both sides of the river and the river bottom trenched to hold the tunnel.”¹²

Additionally, the report noted that “under the new federal *Fisheries Act*, temporary disturbance to the river would be assessed and will require habitat offsets.”¹³ While the ministry claims that environmental impacts for the tunnel will be the lowest over the long-term, that seems to suggest the analysis of in-river impacts are comparable to visual impacts and noise.¹⁴ The Technical Services for George Massey Crossing Project Final Report notes that for the ITT options, “work in the river is likely limited to a 6-month or 7-month work window each year”¹⁵ which creates a scheduling risk and, should any construction fall behind, would cause delays of “6 months, or potentially a year.” These risks place the potential construction timeline difference of the two options at much greater than the optimistic estimate of one year minimum.

The immersed tube and long-span bridge options were originally presented as having comparable costs.¹⁶ Updated estimates for project costs, based on the November 2019 COWI-Stantec assessments, however, show the ITT option to be between \$550 million to \$1,650 million greater than the bridge option before environmental assessment costs.¹⁷

Lastly, with relation to the movement of people, both the immersed tube tunnel and the long-span bridge provide the same number of lanes for vehicles, transit opportunities, and dedicated separate space for active modes of transportation. Given those facts, it is unclear how the immersed tube tunnel was seen to be more aligned with the goal of increasing the share of sustainable modes of transportation. We expect that some preferring active modes of transportation would prefer to be above ground, rather than under it.

Overall, a GMT replacement crossing is a critical project that should be prioritized and built expeditiously. The technology chosen for the crossing should deliver the most value for taxpayers’ money. This choice should be based on a rigorous business case thereby demonstrating cost certainty, expeditious implementation (including the environmental assessment), have the least impact on the river, and afford a lower profile for construction risk. It is important to consider all associated costs including capital cost, technical viability (and difficulty), and time to implement.

THE CHAMBER RECOMMENDS

That the Provincial Government:

1. Expedite the George Massey Tunnel replacement project to be included in the province’s budget and capital plan and Ministry of Transportation and Infrastructure’s Service Plan starting in 2021-22;
2. Assess a decision on the George Massey Tunnel replacement project on the following criteria: demonstrating the most value for taxpayers’ money, delivering sufficient capacity to

¹² [Ibid.](#)

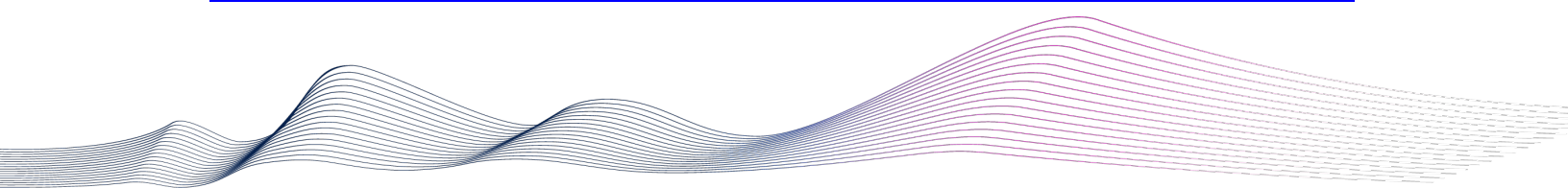
¹³ [Ibid.](#)

¹⁴ http://www.metrovancouver.org/boards/GVRD/RD_2019-Nov-1_MIN.pdf

¹⁵ https://engage.gov.bc.ca/app/uploads/sites/52/2020/02/GMC-rpt-01-gen-cowi_Final_report_Rev0E_19-Dec-2019-w-cover.pdf

¹⁶ [Ibid.](#)

¹⁷ https://engage.gov.bc.ca/app/uploads/sites/52/2020/02/APPENDIX-J-GMC-mem-20-csh-cowi_Estimated_Costs_Rev0A_20-Nov-2019.pdf



accommodate current and future traffic volumes, improving safety for all road users, ability to receive environmental approvals, timelines and overall construction risk, and facilitating the movement of cargo;

- a. Recognize that of the options under consideration by the government, an 8-lane long-span bridge most closely aligns with those criteria; and
3. Prioritize development of a complete, multi-modal Highway 99 Corridor strategic investment planning document, with short, medium and long-term transportation and infrastructure guidelines that take into consideration current and future conditions, infrastructure repair and replacement needs, land protection and access management, active transportation corridors, high-speed and light-rail opportunities, and additional, expanded public transit access.

