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Going Nowhere Fast: The Kenaston Boulevard Project and the Inadequacy of Roadway Expansion in Reducing Winnipeg's Gridlock

For many Winnipeggers, the news from Main Street last week was long overdue. On Wednesday, city council voted in favour of a preliminary design to finally widen Kenaston Boulevard to six lanes of traffic between Ness and Taylor avenues. As noted in the Winnipeg Free Press, the plan is to expand the roadway on the west side by acquiring land from Kapyong Barracks, and on the east by demolishing about 50 homes. Admittedly, actual construction of the proposed alignment may not move forward for several years, since the desired Kapyong Barracks land is currently at the centre of a federal court case between Ottawa and a number of First Nations groups. Nevertheless, the vote on a project meant to improve the state of almost permanent gridlock along Route 90 will likely be welcomed as a decision that, according to conventional practice, should have been made a long ago. As Winnipeg's public works director Brad Sacher notes, current road standards suggest a street be widened to six lanes when traffic counts are above 35,000 vehicles per day, while volumes along the boulevard have been upwards of 50,000 cars and trucks per day for decades, and between 60,000 and 70,000 vehicles daily in recent years.

The decision to invest millions of dollars in this project was made based on the seemingly commonsense belief that expanding the number of lanes along a major artery is the best method of alleviating traffic conges-

tion. Interestingly, however, new research suggests this long-held assumption may not in fact be true. Last year, economists at the University of Toronto analyzed reams of travel and roadway construction data from across the United States going back two decades, and they discovered that "vehicle-kilometres traveled [...] increase proportionately to roadway lane kilometres". Or, to be more concise, "roads cause traffic".

The basis for this decidedly counterintuitive conclusion is the three-pronged 'fundamental law of highway congestion': "people drive more when the stock of roads in their city increases; commercial driving and trucking increases with a city's stock of roads; [and] people migrate to cities which are relatively well provided with roads". Basically, drivers use their vehicles more frequently as the road network expands. As was discovered in the American statistics, when more lanes or roads became available there was a proportional rise in the amount of driving done by motorists, meaning the "increased provision of interstate highways and major urban roads is unlikely to relieve congestion of these roads". Moreover, the economists found building larger public transit systems is by itself an equally insufficient solution. Because there are always drivers waiting for extra space on the road, a former motorist taking the

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bus only provides the opportunity for another to fill their place on the street, with no change in the overall amount of traffic.

While there was little media fanfare over this research when it came out, the economists' findings are worthy of note, as they throw the North American approach to reducing gridlock on its head. For years city planners have expanded roadways (and to a lesser extent, public transit systems) in an attempt to ease the pressure on an increasingly overcrowded transportation network, yet the empirical evidence indicates any relief was only temporary. Unfortunately, on the whole cities appear to have been left worse off by such investment, as congestion quickly returned but municipalities were permanently shouldered with the burden of maintaining more and more expensive infrastructure.

Of course, it is worth acknowledging that, despite the real-world findings of the Toronto economists, theoretically there is a point where road construction will alleviate congestion. If the City of Winnipeg chose to expand Kenaston Boulevard to, say, 100 lanes of traffic, it would obviously never be backed up. The problem, however, is that adding enough lanes to adequately mitigate gridlock would often be unrealistic in the confined area of a city, aesthetically unpleasant, and almost assuredly not financially feasible. This last fact is likely the most critical in Winnipeg, as the city cannot even afford the streets it has now. According to the *Winnipeg Sun*, about one-fifth of our roads have been designated "poor" by the public works department—the worst rating the agency gives—and are in such dreadful condition they have essentially been written off. Due to a lack of funding, the department has no plans to repair most of these streets in the next fifteen to twenty years, and is struggling just to ensure no more roads fall into such a state of disrepair. Overall, Manitoba's capital has an infrastructure deficit—the difference between the amount of money the city government has and what it needs to maintain all its assets—exceeding \$3.9 billion, and the Winnipeg Public Service projects the gap will grow to over \$7.4 billion in the next decade.

The Route 90 proposal is certainly not the only arterial widening project on the municipal government's agenda. In fact, in its latest planning document, the 2011 Transportation Master Plan, the most well-developed chapter pertains to street construction. Unlike the sections on transit, sustainable transportation, and the like, which offer some fantastic qualitative ideals but only sketchy quantitative projections, the street

improvements are fully priced out in short-, medium-, and long-term plans. If the data is to be believed, however, such an adherence to road expansion will be decidedly ineffective in easing the pressure on our transportation network in any sort of financially sustainable way. As such, officials should consider a more holistic approach to alleviating gridlock that, unlike enlarging highways and roads, which only creates new demand, promotes a more responsible, moderated use of our transportation infrastructure.

Like almost all Canadians, one of the central assumptions Winnipeggers hold about our transportation network is that it is a public good; that is, the use of a road by one individual does not impede the ability of others to use the same road. Unfortunately, while this is true if there are only a few cars on the street, when we reach the level of traffic congestion seen on this continent, roadways take on traits comparable to those of hydro or water systems. Just as only so much electricity or water can flow through a power line or pipe at any one time, there is only so much room available for cars on the street, leaving the potential for similarly negative results if user demand surpasses available supply. When there is an overloaded demand for electricity, the system fails and no power can pass through the hydro line. Likewise, when too many motorists attempt to simultaneously use the limited space on a road, a traffic jam is created and the ability of any one driver to travel easily around the city is hugely impeded. The major difference between the two is that while hydro blackouts are a rarity and often even make headlines when they do happen, we have come to accept 'transportation blackouts' of major roadways as an inevitable and daily occurrence.

To encourage citizens to use scarce road space responsibly, just as they would electricity or water, the University of Toronto economists suggest planners and citizens ought to consider treating the transportation system in a manner not unlike home utilities, where financing is provided for the initial infrastructure construction and then consumers are charged a fee relative to how much they use the service. This would actually be easier than ever in the digital age, as all vehicles could be equipped with some type of GPS device that electronically tracks when and where citizens have driven, with drivers mailed a monthly bill. This type of road pricing is already common in other parts of the world, and even some US states including Oregon and Texas have trialed similar initiatives. Going beyond a flat fee per mile, these hi-tech systems take into account every choice a motorist makes and provide positive and negative inducements to smooth

out traffic flow. Motorists are rewarded for choosing a longer but less clogged route, for example, or for driving during off-peak hours. In this regard, a road-pricing plan is actually superior to how governments currently charge motorists for driving—through the gas tax. While the fee at the pumps is a blanket cost for drivers, having the same effect on a major city street at rush hour as an abandoned country road at midnight, fee-per-mile programs are designed to actively moderate traffic through the use of incentives meant to alter how and when someone chooses to travel.

Admittedly, many people may question the notion of charging motorists to drive. Yet, done properly, designing a Winnipeg road-pricing plan could result in the establishment of a more equitable method of financing our transportation system, and lead to a more pleasant travel experience for commuters. Currently, Winnipeggers who choose to, for example, walk or telecommute to work still fund street maintenance and construction through their tax dollars as much as car commuters, even though they use the roads far less frequently. Meanwhile, Manitobans who live in lower-tax municipalities just outside the capital city's limits but work inside the perimeter make use of city roads without paying for their upkeep. A system of road pricing would help mitigate both of these inequities, by charging all citizens who use the valuable transportation infrastructure on a regular basis more for that privilege than those who do not.

The money raised through the road pricing system could be dedicated to maintaining our stock of roads—which would certainly lead to an improvement over today's often bumpy ride to work. Alternatively, there would be great value in putting a healthy portion of the funds towards upgrading the Winnipeg Public Transit system by adding more buses, lowering fares, building more rapid transit lines, increasing park and ride accessibility, and providing more bike lanes. Making public transit a more attractive alternative to driving is the perfect complement to the road-pricing scheme, and the resulting increase in ridership would lead to an overall improvement in Winnipeg's commuter experience.

While those who chose the public option would be saving money on gas, parking, and insurance, taking these former drivers off the road would be equally advantageous to those who still got behind the wheel everyday. The most obvious benefit to the remaining motorists is that there would be less congestion, reducing the amount of time they must spend on their daily drive to work. Beyond that, there would also be

the potential to scale back the total amount of road infrastructure in Winnipeg—or at very least mitigate the seeming need to build more—which reduces the financial pressure on the city and its taxpayers to maintain as many assets, and leaves the public works department in a better position to adequately look after what remains. Furthermore, studies indicate putting more people on one bus instead of in multiple cars could potentially reduce the pummeling our roads suffer every day, which makes for a more pleasant drive and lowers the cost of upkeep. Lastly, by increasing the proportion of vehicles on the road driven by professionals, who tend to have lower crash rates, and reducing the number of vehicles on the road in absolute terms, it has been shown boosting transit ridership among commuters would diminish the risk of traffic accidents and injuries to drivers, pedestrians, and passengers alike.

Today, approximately 50% of the space taken up in a typical North American city is for the roads, highways, parking lots, and the other infrastructure necessary to accommodate private automobiles. Adding extra lanes only spreads the urban area further, making it even less practical for residents to choose a mode of transportation other than a car. This leads to more vehicles on the roads, which then require places to park, eating up more space and pushing buildings further apart again. While each addition may be small—one extra lane here, a parking lot there—over time the result is an urban landscape that actively discourages walking, cycling, and taking public transit because distances between any two points are far too great. Congestion is maintained or even exacerbated, while taxpayers are forced to pay for evermore infrastructure. Road pricing reverses this vicious cycle, employing a market-based approach designed to cut automobile traffic and boost transit ridership that charges drivers based on their personal use rather than through a general tax on income—which ought to appeal to Winnipeggers on both the political left and right.

It is time the citizens and political leaders of Manitoba's capital took a critical look at how we understand and design our transportation network. At very least, it is necessary to acknowledge the evidence illustrating the inadequacy of road and transit expansion as the sole or even primary gridlock alleviation strategies, and explore new demand-side mitigation measures reflecting this reality. Implementing the road pricing recommendations outlined in this document may initially strike people as unpalatable, but with the country's worst per capita infrastructure deficit, citi-

zens need to examine the potential benefits of moving beyond just boosting roadway capacity when it comes to dealing with our traffic woes.

More broadly, while we on the prairies may be in a worse bind than our counterparts in other jurisdictions, Canadians from coast to coast ought to consider the value of a new approach to transportation problems. A 2007 survey by the Federation of Canadian Municipalities found the great white north needs an additional \$21.7 billion to maintain and upgrade existing transportation assets, and in the past few years this deficit has made headlines as bridges and other infrastructure has literally begun to crumble around us. Meanwhile, it was recently revealed Canadians experience some of the worst commute times in the developed world. Such a situation is unsatisfactory and unsustainable, and indicates we would be wise to adopt the pragmatic recognition that road space is a scarce and valuable commodity, and must be treated as such. Because unfortunately, when comes to gridlock, it is all too clear the conventional strategy of building more roads and hoping for the best is taking us nowhere fast.

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