

**Rail-Property Co-Development: Sustainable Capital Financing for Rail-Based Transit Infrastructure in the Greater Toronto and Hamilton Area**

*Prepared for the Transit Investment Strategy Advisory Panel*

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## **Executive Summary**

What if an agency were created to do what Build Toronto has been doing, but integrated with infrastructure across the Greater Toronto and Hamilton Area (GTHA), in a way that was comparable to the “Rail + Property” model that MTR Corporation Ltd (MTRC) has been using to turn a profit on its rail system in Hong Kong for the past 20 years? The “Rail + Property” system cannot be exported as-is, but it could be adapted for use in Ontario (referred to as “Rail-Property Co-Development” to distinguish with the Hong Kong model used by MTRC). While the way the government controls land in Hong Kong is obviously different than it is in Ontario, the business approach demonstrated by Build Toronto and Waterfront Toronto is very similar to the “Rail + Property” approach of MTRC, minus the rail component. Examples of this potential can be seen in Build Toronto projects such as Corus Quay and Ten York.

The “Rail + Property” approach used by MTRC is a master planning and city-building exercise in itself. MTRC does not apply “Rail + Property” alone without consultation, and the government still sets regional planning and land-use goals. Alignment and station location options are reviewed by government departments with information for discussion about capital cost, property development opportunities, return on investment, long-range city planning objectives, etc. The presence of the developers in the planning process from the start in such projects is an important component of maximizing the profit, as it allows opportunities to be identified at the earliest stages, well before adoption of a final and optimal plan. Effectively applied, this approach provides significant finances to the railway for capital expansion, as well as promoting and establishing transit-oriented development patterns at the time the corresponding transit project enters service. It is worth highlighting that the profitable railways in the world don't achieve their profit on fares; property development has played and continues to play a very significant role in such railways' bottom lines.

Not all projects of the same type and size can yield consistent returns on their investment, i.e. there is no standard value per square unit. Rail-Property Co-Development is not going to be the annual and recurring “predictable revenue” stream that municipal staff have repeatedly requested, but it can be a significant contributor to the capital expansion side of the overall funding puzzle. This is a source of revenue that would be expected to avoid controversy, as this is neither a user fee nor a tax nor a surcharge. In the case of GO Transit especially, many of its rail stations have several hectares of land each, mostly used for parking – parking that could be reincorporated into new development projects.

The Aecom/KPMG evaluation of Land Value Capture for Metrolinx did correctly note that its revenue generation can vary considerably depending on many factors, and also correctly noted that Land Value Capture cannot be used without a specific rapid transit project in mind. However, the evaluation focused on only the land value that was associated with the uplift resulting from the introduction of the transit infrastructure. In the scheme design section (Q.2.4 in the Aecom/KPMG evaluation), three ways of “capturing” the land value uplift were

identified:

- *Requiring the developer to provide facilities, cash or infrastructure*
- *Through a tax on the commercial revenues generated by the property*
- *From a property tax on the incremental value of the property*

While it was acknowledged that development of Metrolinx-owned lands was one of the two approaches, the evaluation seemed to focus entirely on privately held lands' uplift in value. The above three approaches are either a "Section 37" type of arrangement, or a tax-based mechanism on a standalone private sector undertaking. These are therefore not comparable to the MTRC "Rail + Property" approach, and the Rail-Property Co-Development approach has not yet been evaluated for use in the GTHA.

The evaluation by Aecom/KPMG concluded with a crucial point that is absolutely correct: *"If structured properly, LVC effectively funds infrastructure initiatives by drawing on the land value uplift created by the project."* All that is missing from that statement is that in the Ontario context, the potential is highest where lands are already under public ownership near transit infrastructure (existing or proposed).

Recommendation 11 of the Metrolinx Investment Strategy encouraged the government to "use transit and transportation projects to increasing the quality of the urban environment, support of transit-oriented development as well as maximizing value through the management of publically-owned property along rapid transit lines." Rail-Property Co-Development revolves around this objective.

In the case of new transit services, the opportunity varies with the type of service. New subways, if stations are not located directly beneath roadways, may provide significant opportunities that could cut station construction costs, if located in an area compatible with development. In the case of Light Rail Transit, Light Rail can be both on-road and off-road, or even elevated or underground if needed. In the on-road context, particularly if in the middle of a two-way street, opportunities are poor unless the right-of-way is exceptionally wide. Underground and elevated Light Rail may present opportunities virtually the same as a subway.

For the reasons and opportunities above, Transport Action Ontario urges the Transit Investment Strategy Advisory Panel to include the Rail-Property Co-Development revenue source in its recommendations.

## **Introduction**

The World Bank recently released a book titled “Transforming Cities with Transit: Transit and Land Use Integration for Sustainable Urban Development.” At a conference held November 1, 2013, on “Transforming Cities with Transit and Financing Transit with Land Values,” the MTR Corporation's approach to this, in Hong Kong, was focused on as a successful example of transit and land use integration as a financing model. The CEO of MTR Corporation was in attendance, where he said “Our system is not only financially sustainable, it is also environmentally sustainable. The railway is never short of funding for the essential maintenance, rehabilitation and expansion, and as the low-carbon backbone of our transport system, it brings direct health benefits.”

The importance of integrating land use and transit is often talked about in the Greater Toronto and Hamilton Area, but there are very few examples of its application. York Mills comes to mind, and a very small selection of subway stations such as High Park, Eglinton, or St Clair West. The region needs to do better, with increasing urgency.

Of particular interest, with varying degrees of relevancy depending on location/context, are governments' past investments in transit park'n'ride lots, passenger pick-up and drop-offs, bus terminals, and in some cases even hydro corridors adjacent to rapid transit stations. While this has resulted in some missed opportunities along the way, some of the legacies created could result in a significant future windfall for infrastructure investment. However, this requires the very strategic leveraging of public lands by the right team of capable people who bring a combination of skills together to maximize sustainability and efficiency in the delivery of a planning and development project in the immediate vicinity of transit infrastructure.

Toronto's waterfront has some common ground in this respect, although not in the context of being in the immediate vicinity of, or integrated directly with, transit infrastructure. The practice of using a city's waterfront for industrial purposes was common sense a century ago, but is now regarded as misguided. The de-industrialization of the waterfront and the acquisition of private lands by the City of Toronto (through negotiation) has created large holdings of mostly vacant land on the waterfront considered “surplus” by the City. These “surplus” lands have been entrusted to Build Toronto in partnership with planning undertaken by Waterfront Toronto to maximize the value out of these lands as the waterfront is redeveloped within the framework of a long-range plan.

What Build Toronto is demonstrating, with resounding success, is the profitability of leveraging publicly held land for the greatest value. While not the same thing, it bears some resemblance to the “Rail + Property” integrated development model applied in Hong Kong by MTR Corporation Ltd (MTRC). MTRC has used its “Rail + Property” model to create well-planned transit-oriented developments around its rapid transit stations while making a substantial profit. The first and perhaps most evident difference between what Build Toronto

is doing and what MTRC is doing, is that there is no rail component in Build Toronto's undertakings. As discussed later, this differs from the Land Value Capture tool evaluated for Metrolinx.

What if an agency were created to do what Build Toronto has been doing, but integrated with infrastructure in a way that was comparable to the "Rail + Property" model that MTRC has been using to turn a profit on its rail system for the past 20 years? The "Rail + Property" system cannot be exported as-is, but it could be adapted for use in Ontario.

There are significant quantities of land already in government ownership near transit stations that could present tremendous opportunities for certain infrastructure projects. These lands, consisting largely of commuter parking, are the result of past practices that, while considered sound at the time of construction, have in recent years been increasingly regarded as unsustainable. Such lands are spread across many parts of the region in the case of GO Transit properties.

In Toronto, subway construction has not taken place in a dense urban environment since 1963, when the University line opened. Dense, urban areas such as the Yonge corridor south of St Clair have not been reproduced along other Toronto subway lines. Before the decades of underinvestment that have resulted in a lack of will to take on the required debt, debt was an accepted practice for infrastructure funding. With that practice, the value of infrastructure investment was measured by soft metrics in order to justify the government's investment in it. In recent years, it has been argued by many that "Transit should be operated as a business!" However, the profitable railways in the world such as MTRC and the bigger private railway companies in Japan, among others, don't achieve their profit on fares; property development has played and continues to play a very significant role in such railways' bottom lines.

## **What is Possible?**

Some profit is available from land sales around stations, but the big profit generator requires involvement in the actual development process. The “Rail + Property” approach used by MTRC is a master planning and city-building exercise in itself. From the perspective of operations and broader transportation demand management, the integrated development of railway station vicinities provides an initial user base for the transit operations and fosters a community that has the choice of adopting a transit-oriented lifestyle. This is especially so if the station area is developed with an emphasis on pedestrian-friendliness and primary destination functions. Depending on where in the network a station is developed, it may also have a transit-oriented employment market, which is known to be at least of equal importance as, if not more important than, residential development to generating ridership.

Cervero and Murakami (University of California, Berkeley) in their 2008 piece “Rail + Property Development; A Model of Sustainable Transit Finance and Urbanism,” identified the following as “second-order” benefits resulting from the “Rail + Property” approach:

- *Improved station-area environments – in the form of master planning that improves circulation, physical integration of stations with surrounding retail-shopping facilities, and enrichment of land uses, all of which can further boost land values and increase ridership;*
- *Integration of retail shopping into station environments, generating ancillary income from retail sales as well as prompting some transit riders who pass by to purchase goods; and*
- *Through public control of land near stations, moderating land speculation and preventing the land-value benefits afforded by rail improvements from accruing to a handful of private individuals.*

Cervero and Murakami also identified the profit generated by MTRC through “Rail + Property” for the Hong Kong Special Administration Region government (its 76% majority shareholder) over the 25-year period from 1980 to 2005 as \$140-billion Hong Kong Dollars (\$18-billion Canadian Dollars (CAD)), net of capital expenditures. The Hong Kong capital expenditures over that period were more than \$4-billion CAD, suggesting a gross revenue of more than \$22-billion CAD. Even though densities will be lower than Hong Kong in the Ontario context, this is clearly a potentially significant mechanism for funding capital infrastructure. To be successful, however, it must be based on commercial principles in addition to sustainable planning practices.



Oimachi Station, a minor station in suburban Tokyo, Japan; Source: Tsu, 2005 [http://en.wikipedia.org/wiki/File:Oimachi\\_Station\\_with\\_Building\\_200507.jpg](http://en.wikipedia.org/wiki/File:Oimachi_Station_with_Building_200507.jpg)

MTRC does not apply “Rail + Property” alone without consultation, and the government still sets regional planning and land-use goals. It is virtually impossible for the “Rail + Property” process to hijack policy to go against the public interest. Alignment and station location options are reviewed by government departments with information for discussion about capital cost, property development opportunities, return on investment, long-range city planning objectives, etc. That said, market forces will have a substantial influence over what can be built while maintaining economic viability. Of course, densities will also be relevant to the success and profit of such undertakings, and there would be minimum densities for a project to be financially worthwhile.

One of the interesting and common features in the Hong Kong experience with “Rail + Property” projects is the role of MTRC as a property manager in finished projects. This is an important feature in that an interest from the railway operating and property developing entity is present both before and after project construction, ensuring that the vision in the master plan is adhered to and maintained over the longer term, which breeds market and tenant confidence in such projects as a brand. MTRC oversees the engineering and construction of these projects as well. Over the longer term, the involvement of such an entity, assuming a successful track record, would yield added returns on investment by increased value of land associated with the brand of the railway/property developer.

The presence of the developers in the planning process from the start in such projects is an important component of maximizing the profit, as it allows opportunities to be identified at the earliest stages, well before adoption of a final and optimal plan, as part of a complete planning process. This includes integrating the mix of different land uses in a seamless fashion that minimizes conflicting traffic flows. Maximizing the profit may involve some additional investment in the infrastructure in upfront costs in order to bring in vastly higher profits than would otherwise have been achievable.

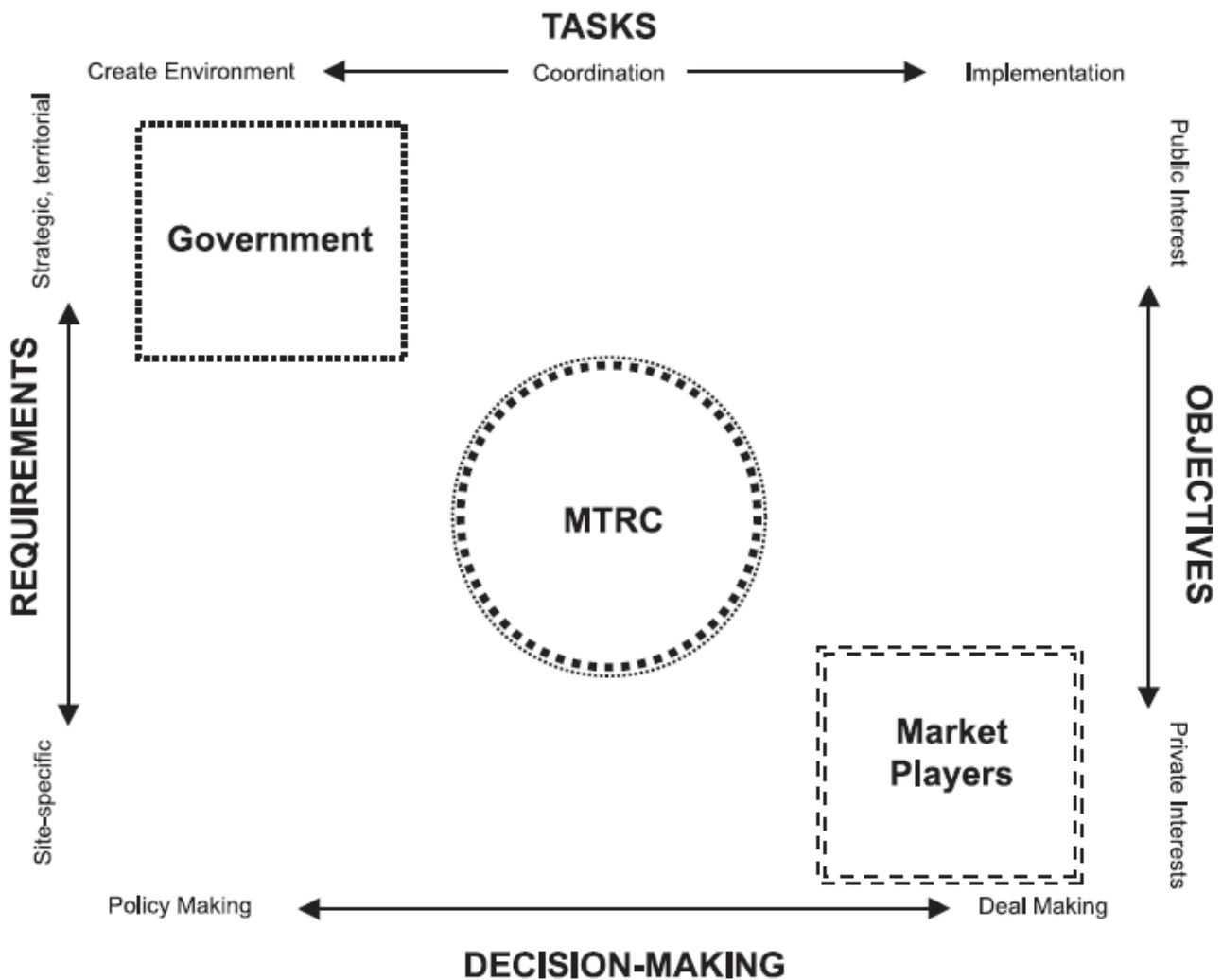
As B.S. Tang et al summarize:

*“The single-developer approach of the MTRC is most suitable to achieve the benefits of land use integration with [the] railway because it can delineate all the rights of the involved parties to benefit from the land. By 'internalizing' all the otherwise 'external' benefits to the separate parties, the MTRC can maximize the synergistic effects between railway and property. Real estate interests and transport considerations are not necessarily compatible. Likewise, property planner and transport planner have different objectives and they do not necessarily agree with each other.”*

*“Conflicting objectives can be more effectively resolved when the decisions are put under a company heirarchy. What this actually does, is to turn a possible 'zero-sum game' between two separate parties into a 'trade-offs' decision within one single firm. A single-developer approach of the MTRC can weight the relative costs and benefits of these competing options, achieve a delicate balance of these apparently incompatible considerations, and come up with*

*an optimal solution. The transaction costs in reaching a settlement within a firm are much lower than between separate companies. The decision so reached will maximize the full synergy between transport and property and minimize their harmful interface effect."*

*"Under this institutional setup, the government creates a favourable incentive and constraint environment, sets major policy objectives of strategic and territorial nature that take into account the public interest in connection with the joint development of the mass transit railway and station property. On the other hand, the market players such as property developers in pursuing the private interests, are responsible for implementing the projects subject to the site-specific requirements and the deals agreed in connection with the joint development projects. Finally, the MTRC acts as the intermediary between the government and market players for coordinating the implementation of these joint development projects, converting strategic objectives into site-specific requirements, transforming policies into deals and balancing possible conflicts between public and private interests."*

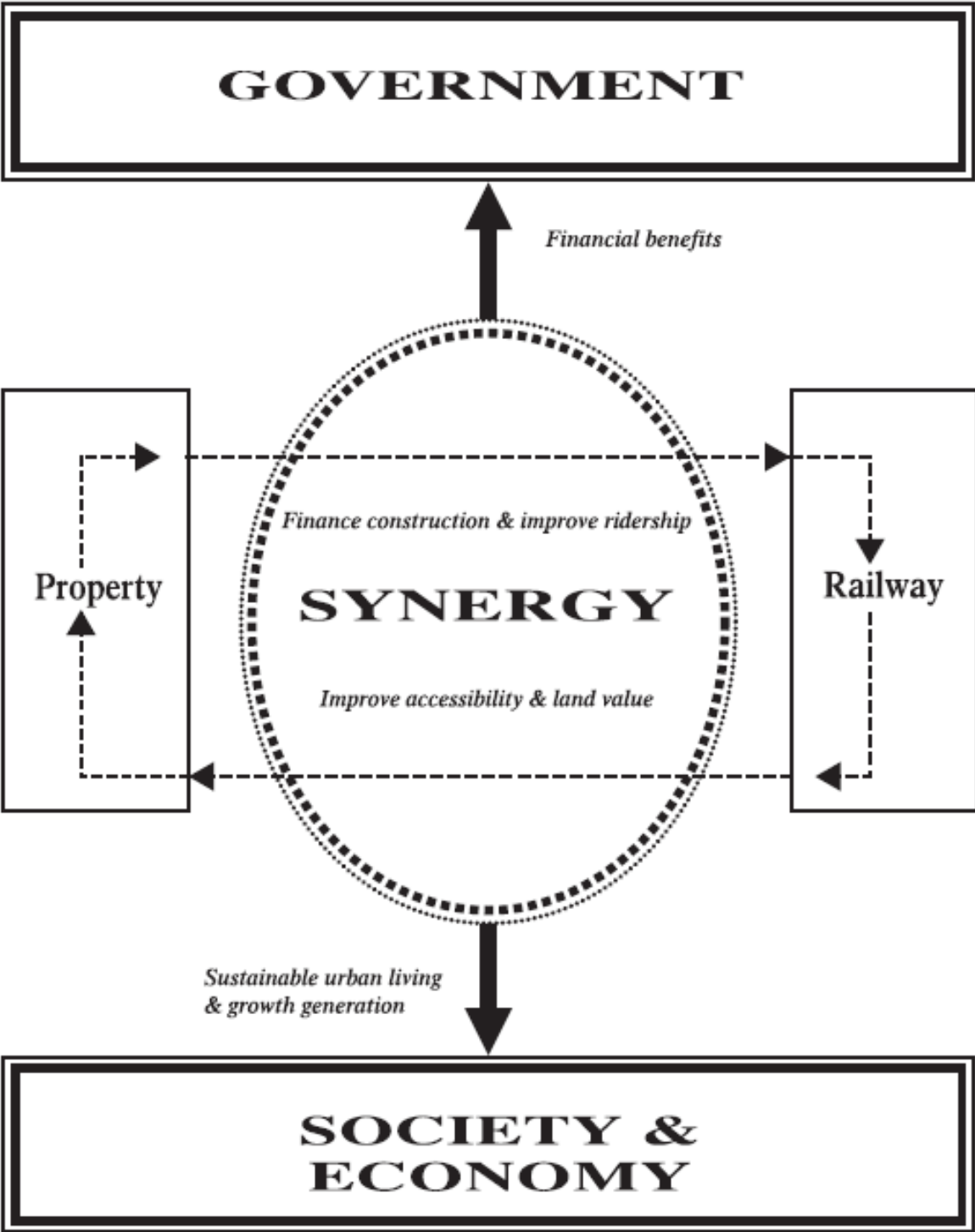


Source: B.S. Tang, et al., "Integration of Property and Railway Development"

This is what the agency must be able to navigate to be successful in Rail-Property Co-Development undertakings, summarized schematically on the previous page.

Effectively applied, this approach provides significant finances to the railway for capital expansion, as well as promoting and establishing transit-oriented development patterns at the time the corresponding transit project enters service. This helps grow a ridership base quickly when rail service begins (or enhanced service begins) and is better for the operating economics of the railway, while the transit-oriented nature of the station vicinity developments support societal objectives such as sustainable built-form and sustainable growth planning. A diagram on the following page summarizing these relationships is provided by Tang et al, in their analysis “Integration of Property and Railway Development: An Institutional Economics Analysis” (published in the Hong Kong Surveyor, Volume 16 (1), June, 2005).

How much profit goes to which sector will be dependent on the crafting of processes and agreements that enable the project. Constraints in such agreements are best minimized if profit is to be maximized, although this obviously should not be done in a way that sacrifices good planning practices, or environmental policies, etc. The efficient use of land in a profitable manner as part of a public infrastructure project would build public support and in turn political support for investing the initial capital with borrowed funds knowing that they will get at least a large portion of it back later – depending on the project, and the economic climate during project execution, the public may even get more back than was put in.



Source: B.S. Tang, et al., "Integration of Property and Railway Development"

## **Build Toronto and Waterfront Toronto Experience**

Over the last decade, the City of Toronto has been seeing improvements unfold on its central waterfront, and recently has begun seeing returns on its investment.

An example of a completed Build Toronto project that has been sold is the Corus Quay building. The project cost \$150-million to build, and was sold for \$186-million. This project was not a high-rise project, at eight stories, but was a one hectare site. The \$36-million profit from one hectare of development of only mid-rise density in an area where higher-order transit is not yet installed or even properly funded is an interesting indicator of what can be achieved with a capable team such as Build Toronto.

The most dramatic project in terms of revenue per square area of land is the Ten York project. This was a small site of 0.6 hectares, and was sandwiched between the Gardiner Expressway and the eastbound Bay-York-Yonge off-ramp of the Gardiner Expressway. Worth only a few million dollars when nothing more than a surface parking lot, Build Toronto took a business approach and entered a deal that has increased the profit by eight to ten times; the profit is expected to be over \$40-million. It is a co-ownership venture during the construction period, with a 20% stake left in the land. When the project is completed, and Build Toronto's share of the profit is in hand, the remaining 20% is considered sold to Tridel, the private sector partner that purchased the other 80% of the property.

Waterfront Toronto has some significantly larger projects in the works currently. With Hines as the private sector partner, the Bayside development is 5.3 hectares and \$910-million to develop (roughly in line with the Corus Quay project on a per hectare basis). Hines won the project in a competitive process against four other pre-qualified bidders. A similar process was done with the Monde condominiums (also known as the Parkside Development) by Great Gulf Homes, and representing a private sector investment of \$200-million into a site slightly less than 0.4 hectares in size.

The above are demonstrative of the kinds of benefits that can result when a public agency at arm's length from the government oversees the master planning and design standards among other goals for a development project, and then leverages the value either on its own as if a private sector competitor itself, or in partnership with a private sector developer awarded through a competitive process. While the way the government controls land in Hong Kong is obviously different than it is in Ontario, the business approach demonstrated by Build Toronto and Waterfront Toronto in the above examples is very similar to the "Rail + Property" approach of MTRC, minus the rail component. For comparative context, it is quite common to find five to ten hectares of parking at a GO rail station, and those parking lands are in most cases Metrolinx-owned.

A critical element in the above examples is that the development particulars are framed, not

dictated, as B.S. Tang et al note the importance of in their analysis, “Integration of Property and Railway Development: An Institutional Economics Analysis.” The agency managing the development has the role of resolving any conflicting interests between the relevant parties (public and private) in the development project.

Tang et al also note:

*“[G]overnment town planning in Hong Kong is most effective in terms of regulating land use disposition, development intensity and certain elements of the built form including building height, number of storeys and site coverage. It is strong in development control but is notoriously weak in the areas of urban design, project initiation and scheme implementation. Furthermore, marketability of the development projects has never been the main concern of the government planners as a development regulator. This is often considered as a matter of the private sector. Indeed, it is perhaps not inaccurate to say that all government regulations are intended to be 'satisfying,' i.e. setting the minimum acceptable standards and requirements, rather than 'maximizing,' i.e. prescribing all the details and leaving minimal flexibility. This is certainly a prudent way of public administration in a small government-large market scenario.”*

*“Government institutions, by their very nature, are inept in reacting to swift market changes. The government bureaucracy is rightly not commercially-oriented. There is likely to be a time lag in the government responses to the corresponding changes in market environment and the best timing is lost. Alternatively, the MTRC model provides a sound institutional mechanism in addressing the possible problems of uncertainty and imperfect information associated with most real estate transactions. Property development is a lengthy process. Unforeseeable changes in economic and market conditions can happen that make the initial planning proposals obsolete.”*

The above encapsulates the essential role of a specialized agency in these kinds of development projects, in order to keep the governments' goals in the plans while being able to operate like a private sector entity comparable to how Build Toronto conducts itself. The business environment of these property development projects are never predictable, and not all projects of the same type and size can yield consistent returns on their investment, i.e. there is no standard value per square unit. Rail-Property Co-Development is not going to be the annual and recurring “predictable revenue” stream that municipal staff have repeatedly requested, but it can be a significant contributor to the capital expansion side of the overall funding puzzle. The private sector has long been used to operating in an unpredictable environment, and those that have the discipline and organizational flexibility to adjust to changes in market conditions not only survive, but turn profits.

## **Versatility in Leveraging Rail Property**

Cervero and Murakami note that while the most famous examples of “Rail + Property” in the MTR network have extreme density, it is hardly a requirement, and that projects vary in density, land use, neighbourhood connectivity, and station integration, among other design parameters; these projects vary based on the context they are situated in. As such, this approach does not pose a threat to surrounding communities that have a built-form that is not compatible with skyscrapers. Cervero and Murakami found three out of their five main types of MTRC projects were mid-rise projects or projects with comparatively low plot ratios (plot ratios are defined as building area divided by site area). This is important for the Greater Toronto and Hamilton Area context where high-rise developments will represent a minority of such project opportunities.

It is very common for 40-45% of the housing in MTRC “Rail + Property” projects to be within 200 metres of the rail station, with the remainder within 500 metres. This pattern, by far the dominant one in the MTR network, was dubbed the “Even Spread” pattern by Cervero and Murakami. They also note that nothing prevents public housing and subsidized housing from being part of the mix, and indeed it is a common feature in many MTRC projects. Combined, public and subsidized housing comprise more than the private housing supply in some MTRC projects. This may be an important consideration to some governments for compatibility with social policy and public housing pressures.

It is also important to note that MTRC does include parking in their projects. The same would be applicable to the Ontario context. Parking lands being used for development purposes does not mean that parking is sacrificed or forfeited (unless a reduction in parking supply is desired for achieving other policy objectives), parking would just be temporarily unavailable while construction is taking place. When complete, commuter parking would be provided within the new development complex. Construction staging can be done in a way that mitigates parking supply issues at stations.

## **Comparison with Land Value Capture Evaluation by Aecom/KPMG for Metrolinx**

Aecom/KPMG prepared the evaluation work on a wide variety of revenue tools for Metrolinx in the development of its Investment Strategy that was released in late May, 2013. That analysis included an evaluation of Land Value Capture as a revenue tool, referred to by Aecom/KPMG as “Tool Profile Q.” It argued that the revenues from Land Value Capture are “[N]ot sustainable over the long-term, because the LVC is designed to capture a one-time gain.”

However, the cost of implementing The Big Move is in large part, although not wholly, based on capital investment. Therefore, mechanisms that are designed to deal with the capital side of the ledger need not be recurring on a predictable, annual basis to be viable and sustainable. The raison d'être for Land Value Capture is to pay for the capital investment, so long as they cover both the capital investment and the interest charges on that capital investment.

The Aecom/KPMG evaluation provided a few examples of similar applications in the United States, although these examples seem to cover two very different variants of Land Value Capture.

One was Alexandria's Potomac Yard station, on the Metrorail system that serves Washington, DC. However, with the exception of an in-kind contribution worth \$81-million from a major mall in the station vicinity, that example was a taxation scheme involving “special tax districts.” The tax would apply to new developments going up in the area around the station, which had been zoned for higher density as part of the station project financing plan. The lands involved in that example were not public lands, and there was no arm's-length public agency involved in the developments' designs and implementation. Therefore, this example is not comparable to the MTRC “Rail + Property” variety of Land Value Capture, and may be more comparable to development charges, which tend to discourage transit-oriented development around transit infrastructure.

The example of the Portland, OR Airport MAX extension LRT line running 8.85 km (5.5 miles) to the Portland International Airport was a more relevant example where leasing and development rights for 48.5 hectares (120 acres) of land controlled by the Port of Portland were given to a private developer in exchange for about 22.5% of the project capital costs being funded (\$28.2-million out of \$125-million). Two of the four stations along the LRT served the private sector partner's development lands. While the private sector partner's involvement brought the public contribution to capital costs down, the private sector partner's development was extremely low density as it was near an international airport and in the flight path, consisting of single-storey retail with significant surface parking around it. In no way was it transit-oriented urban form. While Portland may have gotten the best that could realistically be expected at the time with challenging constraints in such close proximity to an airport, this example seriously understates the potential of Land Value Capture, and is not an

example of planning or land use around transit to emulate.

The Aecom/KPMG evaluation did correctly note that the revenue generation from Land Value Capture can vary considerably depending on many factors, and also correctly noted that Land Value Capture cannot be used without a specific rapid transit project in mind. However, the evaluation focused on only the land value that was associated with the uplift resulting from the introduction of the transit infrastructure. In the scheme design section (Q.2.4 in the Aecom/KPMG evaluation), three ways of “capturing” the land value uplift were identified:

- *Requiring the developer to provide facilities, cash or infrastructure*
- *Through a tax on the commercial revenues generated by the property*
- *From a property tax on the incremental value of the property*

While it was acknowledged that development of Metrolinx-owned lands was one of the two approaches (the other being a capture of land value uplift on non-Metrolinx lands), the evaluation seemed to ignore the high potential of projects using Metrolinx-owned lands, and focused entirely on privately held lands' uplift in value. The above three approaches are either a “Section 37” type of arrangement (first in the list), or a tax-based mechanism on a standalone private sector undertaking of either commercial lands (second in the list) or residential lands (third in the list). All are in the context of privately held lands, not lands owned by Metrolinx or lands owned by another transit agency. These are therefore not comparable to the MTRC “Rail + Property” approach to Land Value Capture, and the Rail-Property Co-Development approach has not yet been evaluated for use in the Greater Toronto and Hamilton Area.

The lands owned by Metrolinx are in a position to seed a variant of the MTRC “Rail + Property” approach, adjusted for the Ontario context. But Hong Kong is never mentioned by Aecom/KPMG in their profile of Land Value Capture. This is important because in the case of Metrolinx-owned lands, if the agency charged with the mandate of developing these lands undertakes a development on its own, as could be the case given Build Toronto's experience, then it would have much higher potential value capture. For example, the Corus Quay building attained a net profit of \$775 per square metre (\$72 per square foot) on a single hectare of property. Even with a private sector partner such as in the case of Ten York, Build Toronto's profit share was upwards of \$588 per square metre (\$54 per square foot), which represented a 20% share of the net profit (i.e. Tridel got four times what Build Toronto got), and this has been praised as a great deal.

A cautionary note in the evaluation by Aecom/KPMG read that “[A]n LVC tool... is by its nature a bespoke exercise which must be carried out on each parcel of land which is subject to the infrastructure-induced windfall gains.” However, this does not apply to the case of developing Metrolinx-owned lands, or even lands owned by other transit agencies, as such lands are still government-owned (the only difference being the level of government).

A particularly surprising statement in the evaluation by Aecom/KPMG read: “The

*implementation of the land value capture tool is not expected to have any impact on the overall performance of the transportation network.” It goes on to state “In the long term, the transportation infrastructure improvement could lead to positive impacts on network performance as more people and businesses locate closer to the transit system and thereby increase [transit] usage. However, it is the transportation infrastructure improvement and not the LVC tool per se that is directly responsible for the increased development.”*

The above quote ignored the opportunities associated with parking lands or other lands (e.g. bus terminals, passenger pick-up and drop-offs, etc.) owned by a transit agency that would not develop without an effort to use those lands in more urban, sustainable, and efficient ways. The parking and bus terminals and so on would not “disappear” in such developments, they would simply be integrated into the development (e.g. York Mills bus terminals (GO and TTC)), but without an effective agency to redevelop those lands in a profitable way, the developments would not be undertaken by the private sector because the lands would be unavailable, preventing increased usage in transit from redevelopment around stations currently surrounded by parking. For inducing the conditions required for sustaining all-day GO rail service (or improved all-day service in the case of Lakeshore), the uses of the parking lands and bus terminals, etc., should change to drive more ridership. Ideally, this takes a form that would induce increased “counter-peak” demand during the rush hours, since a significant amount of supply would be created “by default” in the future simply due to meeting the peak direction demands. Inducing off-peak ridership is also of particular importance to sustaining all-day service.

The evaluation by Aecom/KPMG concluded with a crucial point that is absolutely correct: *“If structured properly, LVC effectively funds infrastructure initiatives by drawing on the land value uplift created by the project.”* All that is missing from that statement is that in the Ontario context, the potential is highest where lands are already under public ownership near transit infrastructure (existing or proposed).

## **GO Transit Rail Stations – A Land Bank under Asphalt**

GO Transit's rail services in many cases operate only during the rush hours. The property associated with the stations' parking areas would be of low value with that level of service, especially with the much longer travel times the off-peak and counter-peak bus services can in some cases incur (e.g. Milton line, Kitchener line). While demand for increased GO rail service in the 905 municipalities is high, infrastructure underinvestment has been an obstacle to GO rail service improvements. Recently, this has started to change, with substantial improvements made along the Lakeshore corridor in recent years, with other corridors in the assessment stages. Rail service improvements, particularly a switch to all-day service, will increase the value of the land.

In the past five years, interest in the electrification of GO rail services has skyrocketed. Electrification of the GO rail network is also a significant opportunity to profit from a land value perspective because electric trains are significantly quieter and cleaner than the diesel trains currently providing the rail service (this is further augmented by the extremely low levels of freight activity in many parts of the network). The cheaper operating costs of electric operation makes it easier to run more service, and is further magnified in an Electric Multiple-Unit model, whereby train lengths are easily adjusted to provide less capacity while still providing an attractive service frequency throughout the day. That dedication to service quality can create land values that would resemble subway station lands, especially given the projected rush-hour frequency requirements for most GO rail services in the Greater Golden Horseshoe model from which ridership figures published in *The Big Move* were generated. Such land value inducement may further increase with strong integration between local, shorter-distance transit and the longer-distance GO rail – a feature that could be incorporated at lower cost if the required infrastructure were integrated into a development undertaking.

The noise from wheel-rail interaction of GO trains can be reduced further than what would already be provided by electrification's elimination of diesel engines. This can be achieved by the use of devices such as “bogie skirts,” certain wheel designs that reduce noise, and “low-noise bogies.” Bombardier, which is the manufacturer of the current GO coaches, is active in the market for all of these noise-reducing components. The reduced noise and “green credentials” of electric trains can become a significant marketing feature for properties in the immediate vicinity of such corridors.

Station design concepts such as those discussed in the Transport Action Ontario report “GTHA Regional Rapid Rail: A Vision for the Future,” might offer opportunities to further reduce noise in an environment where Positive Train Control is present through elimination of the train bell that is ubiquitously associated with GO train stations. Such station enhancements may conceivably be part of a development contract and funded as part of said development plan. Similarly, where present, issues such as hydro corridors and other utility conflicts (500kV lines excepted, for which Hydro One is not comfortable running underground) can be

made part of the development contract and need not be treated as a pre-development investment in the station land.

With platforms already in excess of 300m in length, twice the length of TTC subway platforms, there are significant opportunities to integrate more development to a single station than may be the case with a six-car TTC subway that is around half that length. This generates land use opportunities over a wider area around a single station compared to the subway, theoretically improving the sustainability of the urban environment around stations in addition to a larger amount of land that is very close to train access, which is theoretically the most valuable. This may be particularly relevant to Urban Growth Centres at the Brampton, Oakville, Milton, Langstaff, and Unionville stations.

These features all help create an attractive synergy between Rail-Property Co-Development and electrification of the GO rail system. Electrification has to proceed first, but with a proper plan for various stations across the corridors being electrified, Rail-Property Co-Development could pay off substantial portions of the capital cost incurred by the electrification undertaking. In fact, it is likely that select GO corridors could see all of the capital cost of electrification recovered through Rail-Property Co-Development; Milton appears to have especially high potential, as it serves three Urban Growth Centres (excluding Union Station), as well as the Meadowvale business district. If turning a profit, additional GO infrastructure expansion that is not electrification-specific could be made with that capital.

If it can increase the profit and also improve the urban form or local neighbourhood connectivity around the station, it may be advantageous on numerous fronts to consider modest shifts in platform location of existing GO stations as part of a development undertaking. One example of such that would probably be worth consideration would be the Burlington GO station, where a westerly shift in platform would connect the station directly to Brant St, the main strip through Burlington, without compromising accessibility to/from the lands that currently hold the bus terminal and parking lots. The potential increase in profit would be expected to handily exceed the cost of platform relocation.

It should also be noted that through a private sector partner, additional lands adjacent to a station used for very low density purposes may be acquired for an increase in development project area around said station. There are a number of stations where such opportunities might present themselves, but it would be up to the private sector developer to negotiate the acquisition of such lands. However, such opportunities should be identified very early in the planning process, prior to electrification of the line in question, so that such lands can be acquired at a reasonable, pre-uplift/pre-rail price.

## **Opportunities with Other Forms of Rail-Based Transit**

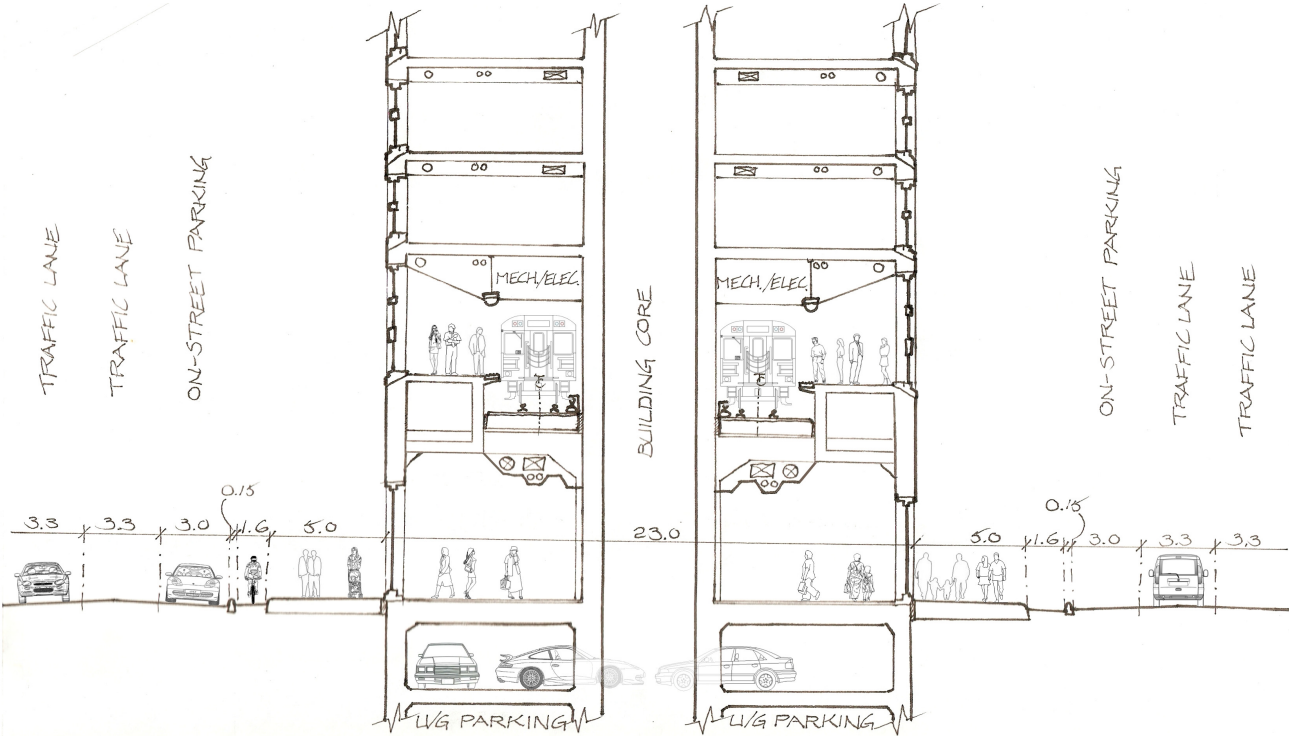
Subway projects would offer similar opportunities as found along the GO system. Existing stations where opportunity is high include the Wilson, Keele, and Victoria Park. Two of those three have higher density structures in their vicinity already, so high-density redevelopment of such parking lands would not conflict with the existing built form. In the case of Wilson, the process of introducing high density has already begun at time of writing.

Other significant opportunities include the Kennedy and Islington stations, but these are along GO corridors and may just as much be considered a part of the GO system as the subway system opportunity lands.

In the case of new transit services, the opportunity varies with the type of service. New subways, if stations are not located directly beneath roadways, may provide significant opportunities that could cut station construction costs, if located in an area compatible with development.

In the case of Light Rail Transit, Light Rail can be both on-road and off-road, or even elevated or underground if needed. In the on-road context, particularly if in the middle of a two-way street, opportunities are poor unless the right-of-way is exceptionally wide. Underground and elevated Light Rail may present opportunities virtually the same as a subway.

The Eglinton west corridor through Etobicoke is of particular interest because it happens to run through an exceptionally wide right-of-way. The opportunity for innovative reinvention of this part of Eglinton could lead to great urban-design possibilities and potentially very high real estate returns while simultaneously lowering construction costs, per the cross-section on the following page (can apply to LRT, but subway vehicles shown). While a one level down or one (high) level up approach can generate similar benefits, the one level up approach is simpler from a utilities perspective, particularly at intersecting streets.



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