June 28, 2019

Note to Reader

Waterfront Toronto's Guide to reading the draft Master Innovation and Development Plan proposal submitted by Sidewalk Labs

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Note: The initial mention of terms described in the Glossary have been *italicized* throughout this document.

Disclaimer: This Note to Reader has been developed by Waterfront Toronto as a preliminary response to the Master Innovation and Development Plan proposal from Sidewalk Labs. It is based on an initial, high level review of the MIDP by Waterfront Toronto. For a complete understanding of the proposal, please refer to the MIDP.

Chapter I: Introduction

Waterfront Toronto is creating sustainable and resilient mixed-use spaces in downtown Toronto. Our mandate is to deliver a connected waterfront that belongs to everyone, serving as a leading example of innovation and excellence in urban design, a magnet for investment and job creation, and a source of pride and inspiration for Canadians.

The Quayside project is our most recent exploration of what an innovative community by the lake can be. The Quayside site is a 4.9-hectare (12-acre) parcel of land that connects a number of emerging waterfront neighbourhoods in the West Don Lands, East Bayfront and the Port Lands. Quayside has the potential to demonstrate precedent-setting standards for building affordable, sustainable, inclusive and prosperous communities.

In March 2017, Waterfront Toronto launched an international Request for Proposals (RFP), seeking an Innovation and Funding Partner to help think through tough urban challenges and create a strong and compelling vision for Quayside.

The submission of the Draft *Master Innovation and Development Plan* (MIDP) proposal from Sidewalk Labs is the next step in this lengthy and unprecedented process for Waterfront Toronto.

Waterfront Toronto has received the Draft MIDP and is set to begin a robust public consultation process on the proposal. We believe there are many positive aspects included in the MIDP and that Sidewalk Labs has worked in earnest to address the *project objectives*. Particularly, we believe Sidewalk Labs has put forward proposals worth consideration and further exploration around Waterfront Toronto's identified *priority outcomes*; sustainability, economic development, affordable housing, new mobility and urban innovations.

Sidewalk Labs has proposed to create one of the most sustainable communities in the world at Quayside, with a projected 85% reduction in GHG emissions below the Toronto average, and a well researched path to achieving a *climate positive* development at a greater scale. Sidewalk Labs is also proposing important elements to potentially catalyze an innovation ecosystem on Toronto's waterfront, a public policy goal shepherded by Waterfront Toronto's since it's inception in 2001.

However, we also have significant concerns with elements of the proposal that we will continue to work through with Sidewalk Labs. These include proper oversight over data collection, governance and privacy, project scope beyond Quayside, and requirements for future infrastructure investments.

The Draft MIDP written by Sidewalk Labs is documented in three Volumes, comprising:

Volume 1 – The Plans

In this volume, Sidewalk Labs focuses on the development plan and the physical manifestations of proposed innovations within that plan. Volume 1 also includes a chapter on Economic Development, detailing the future economic impacts associated with the implementation of the MIDP.

Volume 2 – The Urban Innovations

In this second volume, Sidewalk Labs outlines the proposed innovations across the five pillars of the Draft MIDP: Mobility, Public Realm, Buildings and Housing, Sustainability and Digital Innovation.

Volume 3 – The Partnership

In this final volume, Sidewalk Labs describes their commercial proposal, including governance constructs, roles and responsibilities, transaction economics, stage gates, implementation plans and risk mitigation measures.

Sidewalk Labs has also provided an Overview of the Draft MIDP as a fourth and separate document.

All three Volumes and the Overview are available online at www.QuaysideTO.ca and in hard copy at the Toronto Reference Library, as well as the following Toronto Public Library branches: St. Lawrence, Fort York, Brentwood, Queen/Saulter, Scarborough Civic Centre, and North York Civic Centre. In addition, one copy has been provided for each Councillor's office at the City of Toronto.

In response to the opportunities, concerns, and inherent complexity of the proposal, this Note to Reader has been written by Waterfront Toronto to support public consultation on the Draft MIDP. This Note to Reader is not a substitute for the Draft MIDP. Instead, it is meant to help the public navigate the Draft MIDP and provides a synthesis of the elements that are of particular interest when considering the proposal from our perspective as public steward of waterfront revitalization. To help inform a productive public discourse around this proposal, Waterfront Toronto has sought to bring clarity to the Draft MIDP in relation to:

- What was asked for by Waterfront Toronto;
- The response from Sidewalk Labs;
- Where and how the Draft MIDP aligns with existing practices versus those that are new;
- Privacy and digital governance considerations;
- Where the privatization of public assets is being proposed, if at all; and,
- Financial impacts and risks.

It also poses both general and specific questions for you to consider regarding the Draft MIDP. The general questions are listed below, with more detailed questions integrated throughout this Note to Reader:

- What proposals in the Draft MIDP from Sidewalk Labs do you like?
- Which proposals raise questions or concerns for you, and why?
- What you see as the risks with Sidewalk Labs' proposals?
- Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

Waterfront Toronto will be leading a public consultation process to seek feedback and get answers to these questions. The final section of this Note to Reader provides details on the many ways you can share your feedback with us, or you can visit www.QuaysideTO.ca for more information. All feedback we receive will be rigorously documented and shared publicly. This feedback will directly inform Waterfront Toronto's formal review and evaluation of the proposal from Sidewalk Labs.

If you have any questions about what is included here and/or the public consultation process, please visit our website for more information or contact us at quayside@waterfrontoronto.ca.

Chapter II: Setting the Stage

In 2017, Waterfront Toronto issued a Request for Proposals ("the RFP") seeking an Innovation and Funding Partner. The opportunity was to help Waterfront Toronto develop a guiding vision by identifying and defining the necessary technologies, infrastructure and strategies that could

lead to the delivery of a globally significant demonstration project that addresses challenges regarding Sustainability, Complete Communities, and Economic Development and Prosperity.

Waterfront Toronto's intention was for the focus of this vision to be on Quayside, a 4.9 hectare (12 acre) testbed site at the base of Parliament Street at Queens Quay East. This testbed could then be used to inform how project successes might be scaled elsewhere on the eastern waterfront, subject to applicable government approvals and procurement processes.

Sidewalk Labs was awarded the Innovation and Funding Partner opportunity in September 2017, and several steps in the process have unfolded since then (see Appendix A for a detailed process description). In brief, Waterfront Toronto and Sidewalk Labs worked together early in the process to do research, generate ideas and consult the public. The roles of the two organizations then separated, with Waterfront Toronto focused on creating a robust framework for review and evaluation of the MIDP. Sidewalk Labs prepared and submitted the Draft MIDP. The MIDP is ultimately subject to the approval of both Waterfront Toronto's Board of Directors and Sidewalk Labs.

Overarching Elements that Frame the Sidewalk Labs Proposal

Before getting into the detail of the Draft MIDP, we wanted to introduce a few overarching elements that frame the proposals from Sidewalk Labs that follow in this Note to Reader.

Sidewalk Labs is proposing:

- The creation of an *IDEA District* that is 77 hectares (190 acres) in size, with Quayside (4.9 hectares, or 12 acres) and *Villiers West* (8 hectares, or 20 acres) identified as the first incremental step.
- Four overarching roles for themselves in the IDEA District.
- Financial streams associated with the proposal.

More detail on each of these elements follows below, and in other sections of this Note to Reader*.*

2.1 The IDEA District

Sidewalk Labs has submitted a proposal centered on an Innovative Design and Economic Acceleration (IDEA) District that is comprised of 77 hectares (190 acres), of which Quayside (4.9 hectares, or 12 acres) and Villiers West (8 hectares, or 20 acres) are proposed to be the first incremental steps. See Appendix D for a map.

The IDEA District is proposed as the defined geographic area that Sidewalk Labs states is required to achieve Waterfront Toronto's priority outcomes. This proposed IDEA District comes with a governance construct and a phased approach for its expansion that would be subject to government approvals.

The IDEA District proposal is anchored on three core elements, which are discussed in greater detail in Chapter VII of this Note to Reader.

- A *Public Administrator*: Accountable directly to Government, a body that oversees the IDEA District pertaining to innovation, real estate, infrastructure and technology, including *advanced infrastructure systems (e.g. thermal grid, vacuum waste collection, etc.).*

- An *Innovation Framework*: A modified regulatory framework that would apply incrementally across the IDEA District, subject to meeting certain project milestones. This framework would consist of:
  - Certain adjustments to legal and regulatory requirements necessary to implement the MIDP (e.g. Building Code), and;
  - *Innovation Design Standards and Guidelines*, a set of evolving requirements that would guide development with the goal of meeting Waterfront Toronto's and the *project objectives.*
- Financing Mechanisms: A set of tools to enable the project to leverage its own value for implementation, particularly with respect to funding advanced infrastructure. The mechanisms proposed include: city fee and development charge credits, *municipal infrastructure contributions, local infrastructure contributions*, the use of local land proceeds, and possibly *tax increment financing*.

For more information on the proposed three elements of IDEA District see Volume 3, Chapter 1 of the MIDP.

Priority Considerations: There are proposals for more than the 4.9 hectares (12 acres) of Quayside throughout this MIDP and summarized in this Note to Reader, on which we will consult with the public. However, as was originally contemplated by Waterfront Toronto, should the MIDP move forward, Waterfront Toronto must see how effectively the project objectives and priority outcomes are achieved at Quayside, while understanding the financial trade-offs of doing so. Quayside as a first step allows Waterfront Toronto and its government partners to assess how/if to move forward. Any expansion beyond the Quayside site will be up to Waterfront Toronto and its government partners.

2.2 Sidewalk Labs Roles

Sidewalk Labs proposes four overarching roles for itself, evolving based on the geography being considered. Notably, Sidewalk Labs proposes that any role they may perform in the IDEA District, beyond Quayside and Villiers West, be at the discretion of Waterfront Toronto and governments.

Role 1: Development of Real Estate and Advanced Systems

Sidewalk Labs proposes to lead the development, with a commitment to work with local partners, solely on the Quayside and Villiers West parcels (13 hectares or 32 acres) within the IDEA District. At Quayside, Sidewalk Labs proposes a development with cutting-edge design and technology to improve urban life and meet the project objectives. At Villiers West, Sidewalk Labs proposes to continue, and amend as appropriate, the innovations at Quayside to develop an urban innovation campus anchored on an expanded Canadian headquarters for Google, an *Urban Innovation Institute* and residential housing.

Sidewalk Labs proposes to serve as lead developer for advanced infrastructure systems at Quayside and Villiers West that it has identified as essential to meet the project objectives. Sidewalk Labs emphasizes that their role at Quayside and Villiers West is necessary in proving the market viability of the innovations and advanced infrastructure systems proposed in the MIDP.

Beyond Quayside and Villiers West, Sidewalk Labs proposes no role for themselves with respect to development of real estate and advanced infrastructure elsewhere in the IDEA District. Rather, they propose development would be led by third-party developers and operators procured by Waterfront Toronto or the Public Administrator.

> **Priority Considerations:** Sidewalk Labs proposes to lead development on Quayside, with the support of local partners. Should the MIDP go forward, it should be on the basis that Waterfront Toronto lead a competitive, public procurement process for developer(s) to partner with Sidewalk Labs.

Role 2: Innovation Planning, Design and Implementation

Sidewalk Labs proposes that they would provide advisory, technical and management services to support and carry out the strategies and innovations proposed in the MIDP. These advisory services would focus on refining the Innovation Design Standards and Guidelines as necessary throughout the development of the IDEA District.

Role 3: Technology Deployment

Sidewalk Labs proposes to deliver new technological approaches for solving urban challenges. Sidewalk Labs sets forth principles for technology deployment, identifies *purposeful solutions* (technology that does not currently exist), proposes a profit-sharing deal with the public sector on certain technologies, and puts forth a *patent pledge* to allow third parties to develop solutions that build on certain of Sidewalk Labs' Canadian patents.

Role 4: Optional Enabling Infrastructure Financing

Sidewalk Labs proposes optional financing support to accelerate the delivery of municipal and advanced infrastructure, and the Waterfront East LRT. This proposal is at the option of Waterfront Toronto and governments to pursue.

Note: These roles are further assessed Appendix B in relation to their compliance with the RFP and Plan Development Agreement (PDA).

2.3 Financial Structure

The Governance and IDEA District proposal outlines the roles and responsibilities and provides the framework upon which the transaction economics and commercial proposal is based at incremental geographies.

There are three financial streams associated with this project and Sidewalk Labs has put forth a construct for a proposal for each: (1) Real Estate, (2) Infrastructure, and (3) Intellectual Property. These will be discussed further in Chapter V of this Note to Reader.

Questions to Consider – Overarching Proposals

- What information would you need to assess whether these proposals would work well for Toronto?
- Under what conditions, if any, do you think they could be useful to consider?
- What advice do you have for Waterfront Toronto as they review and evaluate these overarching proposals that frame the entirety of the Draft MIDP?

Chapter III: MIDP Volume 1 – The Plan

Volume 1 of the MIDP presents development plans at two scales: Quayside and the *River District* – Together these make up the geography of the proposed IDEA District. See Appendix D for a map.

In this section we focus attention on areas of interest to Waterfront Toronto, as public steward of waterfront revitalization.

- Alignment and divergence from City of Toronto approved planning frameworks.
- Overview of the *social infrastructure* proposed (community services and supporting digital tools).
- Outline of the economic development benefits forecasted by Sidewalk Labs.
- Implementation and risk considerations.

3.1 The Quayside Plan

Alignment with Approved Planning Frameworks

Quayside falls across the boundary of two precincts, East Bayfront and Keating Channel, which are subject to City-approved precinct plans. The precinct plans call for mixed-use development, comprising 75% residential and 25% non-residential land use mix. The precinct plans call for an elementary school, a park adjacent to the Victory Soya Mills Silos and the continuation of the *water's edge promenade* within the Quayside site. Additionally, the precinct plans contemplate a dedicated LRT on Queens Quay.

Waterfront Toronto has reviewed the MIDP's fit with the precinct plans and existing zoning and notes the following:

- **Density:** proposed density is less than what was imagined for both precinct plans and existing zoning.
- **Height:** building heights vary—typically lower—from what was imagined in both precinct plans.
- **Massing:** building massing in the proposal is different from the massing and built form direction in the precinct plans.
- **Mix of Uses:** the proposal presents a higher amount of non-residential (including retail, commercial, social infrastructure and production uses) than the precinct plans.
- **Community Facilities:** the precinct plans set aside space for an elementary school. Sidewalk Labs has allotted space for this school within Quayside. Additional community facilities space is proposed by Sidewalk Labs.
- **Connectivity:** connections through the site are generally consistent with the precinct plans, however, the proposed removal of vehicular traffic on Parliament Street between Lake Shore Boulevard East and Queens Quay would alter the circulation of buses and automobiles through the site.
- **Queens Quay:** the public right of way design, mode share split and space allocation is generally consistent with the most recent *East Bayfront Transit Environmental Assessment*, with the exception of minor modifications.
- **Parking:** is significantly reduced from the levels expected in the current zoning by-law. Offsite parking, not envisioned in current precinct or secondary plans, is included in the proposal concept.
- **Ground Floor Animation:** precinct plans require buildings to incorporate ground-related commercial or retail uses, particularly on Queens Quay. Sidewalk Labs also proposes retail along an interior laneway.

- **Water's Edge:** the proposal is generally consistent with the vision in the precinct plans to better connect people to the water's edge, however the proposed dimensions of the water's edge promenade must be further explored.

For more information on the Quayside Development Plan see Volume 1, Chapter 1 of the MIDP; for a detailed outline of the proposed Quayside Development Program see Volume 1, Chapter 1, pages 68-81; and, for more detailed drawings of the technical systems illustrated in Volume 1, Chapter 1, pages 98-101 see the Quayside Planning Supplement in the Technical Appendix.

3.2 The River District Plan

The *River District* is covered by the *Keating Channel* and *Villiers Island Precinct Plans* as well as the *Port Lands Planning Framework*. The River District proposal is not as detailed as the proposal for Quayside, and as such, Waterfront Toronto's review of the development plan will be limited to a higher-level analysis.

Sidewalk Labs proposes locating the Canadian Google Headquarters and Urban Innovation Institute on the western portion of Villiers Island which generally aligns with the Villiers Island Precinct Plan objective for a "catalytic" use.

For more information on the River District proposal see Volume 1, Chapter 2 of the MIDP; for the proposed Google Campus see Volume 1, Chapter 3, page 438; and, for the proposed Urban Innovation Institute see Volume 1, Chapter 3, page 477.

Questions to Consider – Development Plans for Quayside and the River District

- Do you think that the proposed Development Plan for Quayside would create a complete community and vibrant neighbourhood? Is this a place that you would want to live? Why or why not?
- Do you think that the proposed Development Plan for the River District would create a complete community and vibrant neighbourhood? Is this a place that you would want to live? Why or why not?
- Do you think that variances between the Draft MIDP and the City-approved precinct plans are problematic and, if so, which ones?
- If you could change elements of the proposed plans for Quayside and the River District, what would you change and why?

Social Infrastructure – Included within Volume 1 are elements of the Social Infrastructure proposal.

Social Infrastructure is often defined as a collection of facilities and organizations that support residents and communities. Sidewalk Labs builds on this definition, including in their proposed physical spaces, programming and service delivery innovations, and digital tools.

Sidewalk Labs proposes three physical spaces that can be classified as community facilities.

1. A Community Hub called the "Care Collective" to provide space for traditional health services as well as other community supports.
2. The "Civic Assembly": to provide space for community programs, civic engagement and cultural events, similar to how a community centre might function. It would also host a proposed "Tech-bar" that offers support for any digital needs within the neighbourhood.
3. An Elementary School: As identified in the precinct plan, there is space set aside for a Toronto District School Board elementary school and a childcare centre.

Sidewalk Labs has proposed a set of digital tools to complement the social infrastructure and public spaces. Sidewalk Labs proposes two tools (*Collab* and *Seed Space*) but speaks to an aspiration that more be developed by the community and future partnerships. Collab would be used to gather feedback from community members as to public space programming. Seed Space is a digital leasing tool to facilitate more dynamic leasing and co-tenancy options.

At Quayside, Sidewalk Labs proposes more community facility space than called for in the East Bayfront Precinct Plan. In line with a traditional approach, this space is proposed to be funded through city fees and development charges, however, an ongoing operational funding plan is not identified.

It should be noted that there are no anticipated privatization of public roles or assets in the Sidewalk Labs proposal for Social Infrastructure. All existing roles for governments would be unaffected.

For more information on the proposed community facilities see Volume 1, Chapter 1, page 215 of the MIDP; and, for the proposed digital services, including Collab and Seed Space, see Volume 2, Chapter 5, page 444-447.

Questions to Consider – Social Infrastructure

- *Do you think the community facility spaces proposed by Sidewalk Labs address present and future community needs?*
- *What aspects of Sidewalk Labs' Social Infrastructure proposal most excite you? What aspects most concern you?*

3.3 Economic Development

A priority objective for Waterfront Toronto's revitalization projects is to create jobs and attract private investment. The RFP challenged the Innovation and Funding Partner to create a plan focused on the urban innovation sector—including cleantech, building materials, and broader urban innovation related sectors—that expands the existing waterfront innovation corridor.

Sidewalk Labs has proposed to address these challenges through accelerated real estate development (i.e. getting shovels in the ground faster) and by creating an urban innovation cluster.

The proposal put forth by Sidewalk Labs could facilitate the acceleration of development in the Port Lands by 10 years and Sidewalk Labs has indicated that it would be possible to complete 77 hectares (190 acres) of development by 2040. The timeline, as described in the Draft MIDP, would require public investment in municipal infrastructure that is greater than currently planned. Sidewalk Labs has commissioned a third-party economic impact analysis that shows the potential impact of this acceleration.

The creation of an urban innovation cluster along the waterfront is the other component to Sidewalk Labs' economic development strategy. Sidewalk Labs defines urban innovation as "the interdisciplinary approach to integrating innovations that address all aspects of life in cities into the urban fabric".

Sidewalk Labs proposes to put forward $10 million in initial financing for an independent and non-profit urban innovation institute. The institute would support both commercial product development and applied research. Sidewalk Labs would also put forward $10 million in seed funding for an early-stage *urban innovation venture fund* focused on local start ups. Sidewalk Labs has indicated that these initiatives, together with the Google Canadian Headquarters, could create the foundations for an urban innovation cluster.

Further, in support of the *Waterfront Toronto Employment Initiative (WTEI)*, Sidewalk Labs proposes that 10% of newly created jobs be hired from historically disadvantaged groups and that the guiding Innovation Framework should make this mandatory for all developments across the IDEA District.

For more information on the proposed economic development strategy and impacts see Volume 1 Chapter 3 of the MIDP.

3.3.1 Implementation Considerations

The economic development outcomes in the Draft MIDP are predicated on a development schedule that assumes accelerated public investment in the necessary municipal infrastructure (including the Waterfront *Light Rail Transit* line).

Sidewalk Labs has proposed optional upfront financing to ensure that this infrastructure is built to meet the proposed development schedule. If the optional financing proposed by Sidewalk Labs is accepted, one method of repayment could be that municipal proceeds—such as development charges, incremental property tax and incremental land value—that are generated in the project area be used for repayment. Sidewalk Labs asserts that in this scenario, the revenues to government would be greater than at the base-case. Notably, this is only one idea around municipal infrastructure financing and other options could be explored.

3.3.2 Risk Identification

Within the economic development proposal, examples of risks to consider include:

- Sidewalk Labs' projected development timeline and their predicted government revenues associated with this are contingent on factors outside of their control. If implementation is delayed, the projected government revenues associated with the project will be lower than predicted.
- Sidewalk Labs' relatively modest initial seed capital for the Innovation Venture Capital Fund creates a dependence on raising additional funds and uncertainty on whether the desired positive impact on an innovation ecosystem will be achieved. A similar risk pertains to the modest initial seed capital for the Urban Innovation Institute.

Questions to Consider – Economic Development

- What aspects of the economic development strategy do you find the strongest? What aspects concern you, if any? What advice do you have, if any, to address those concerns?
- How well do you think the economic development strategy described in the MIDP aligns with Waterfront Toronto's objectives and the objectives put forward in the Quayside RFP?
- Locating a new Google campus on Villiers Island is a significant part of the economic development strategy. What advantages and/or concerns do you see with this proposal?
- Under what conditions, if any, do you think the Sidewalk Labs' proposal to offer upfront financing for necessary municipal infrastructure is in the public interest?
- How well does Sidewalk Labs' proposed economic development strategy support the healthy technology ecosystem that currently exists in Toronto? How can we ensure that this plan strengthens Toronto companies?

Chapter IV: MIDP Volume 2 – Urban Innovations

Within this section of the Note to Reader, we have synthesized the Urban Innovations proposal to focus attention on the areas that Waterfront Toronto has identified as being of particular interest when considering the Draft MIDP from our perspective as public steward of waterfront revitalization. To help inform the public consultation process and support the efforts of those seeking to navigate and understand the lengthy and complex proposal from Sidewalk Labs, we have worked to highlight and bring clarity to their proposal in relation to the following:

- **What We Asked For:**
    - The RFP, PDA, Waterfront Toronto Goals & Objectives/Priority Outcomes, Public Policy.
- **Sidewalk Labs Proposal:**
    - Description of proposed innovations in the MIDP.
- **Alignment with Existing Practices:**
    - Overview of how/where the MIDP aligns with existing Waterfront Toronto and public sector practices.
- **Proposed New Practices:**
    - Proposed strategies and governance beyond typical Waterfront Toronto or public sector practices.
- **Privatization of Public Roles or Assets:**
    - Clarifying where/if public authority or assets are assigned to the private sector.
- **Financial Impacts:**
    - How initiatives and innovations are proposed to be funded and/or financed.
- **Risk Identification:**
    - A sample of risks identified to date across the project.
- **Questions to Consider:**
    - Prompting questions for the public, related to specifics of the MIDP proposal.

4.1 Mobility

4.1.1 What We Asked For

Waterfront Toronto challenged our Innovation and Funding Partner to propose convenient and efficient transportation options for Quayside that could enable low-carbon and affordable mobility solutions. They were also asked to propose innovative funding strategies that could leverage public and private funding to secure an implementable model for light rail transit along the eastern waterfront.

Waterfront Toronto aspires to create a mixed-use community with improved cycling and pedestrian infrastructure, while leveraging the potential benefits of new technology, such as connected and autonomous vehicles and emerging on-demand transportation services, to complement a robust rapid transit network. Desired results include lower costs for users, as well as dramatically reducing *greenhouse gas* emissions from transportation, including electric vehicles.

Government objectives, policy documents or frameworks guiding our aspirations include the following:

- *City of Toronto TransformTO Climate Action Strategy*, which calls for 75% of trips under 5 km to be walked or cycled by 2050.
- *Metrolinx 2041 Regional Transportation Plan*, which seeks to connect more of the region with frequent rapid transit, better integrate transportation and land use, and plan for an uncertain future that may involve innovative technologies.

4.1.2 Sidewalk Labs Proposal

Sidewalk Labs has proposed a strategy to reduce the need to own a car by providing safe, convenient, connected and affordable options for every trip. This strategy includes active management of the mobility network, pricing incentives, modal integration, a freight system that minimizes truck deliveries and waste collection from the streets, an approach to enable expedited delivery of LRT service, a flexible street network that optimizes road space and prioritizes pedestrians and cyclists, and the infrastructure to support electric vehicle adoption.

Sidewalk Labs identifies the City-approved LRT expansion along Queens Quay East as the backbone of the transportation proposal. Sidewalk Labs has proposed an optional method for financing the LRT that would recoup financing costs through capturing incremental property taxes. Notably, this is only one idea around LRT infrastructure financing and other options could be explored.

Sidewalk Labs proposes to prioritize the use of sustainable transportation modes through a network of "people first" streets, which include bicycle lanes that provide access to every building and transit stop. This would be further supported by using tools such as priority signals for pedestrians and cyclists, heated pavement and an optional app-based transportation-as-a-service subscription package. This package would enable users to pay for and plan trips that use a combination of different modes such as TTC, Bike Share, or *ride hailing*, while encouraging the use of sustainable modes through modal integration, dynamic pricing and incentives.

The proposed street network also includes dynamic curbs to optimize the use of road space by expanding or contracting vehicle pick-up and drop-off space and pedestrian rights-of-way, based on demand. The policy and pricing for curb use would be applied in real time to manage demand and encourage the shared use of ride-hailing services. To limit trucks on local streets, Sidewalk Labs proposes that freight and waste be moved through underground tunnels using delivery robots.

For more information on the Mobility proposal see Volume 2, Chapter 1 of the MIDP.

Priority Considerations: There is no current commitment to fund the LRT. Sidewalk Labs' proposal requires future commitments by our governments in order to move ahead with this project. This includes the extension of public transit to Quayside prior to development. This raises a significant implementation concern and is a proposal that Waterfront Toronto does not have the jurisdiction to approve.

4.1.3 Alignment with Existing Practices

Sidewalk Labs' proposed mobility initiatives align with Waterfront Toronto's work to date, including the revitalization of Queens Quay (transforming an arterial road into a boulevard that prioritizes sustainable transportation modes) and the Cherry Street LRT extension that introduced rapid transit to the West Don Lands and Distillery District neighbourhoods.

4.1.4 Proposed New Practices

To realize these mobility innovations, Sidewalk Labs proposes the establishment of a new public-sector entity called the *Waterfront Transportation Management Association* (WTMA) that

would be responsible for integrating several elements of the transportation system. Sidewalk Labs suggests that the WTMA could be a division of the proposed Public Administrator. The establishment of the WTMA, and many of these proposed mobility initiatives, would require independent regulatory approval from municipal or provincial authorities (for example, curbside pricing for rideshare pick-up and road pricing for AVs).

For more information on the proposed Waterfront Transportation Management Association see Volume 3, Chapter 1, page 70 and Volume 2, Chapter 1, page 84 of the MIDP.

4.1.5 Privatization of Public Roles or Assets

Sidewalk Labs does not propose to privatize any public roles or assets within the mobility section of the MIDP. They propose that the streets, including the modular pavers, would remain a public right-of-way owned by the City of Toronto, and would be managed by the WTMA, which would be overseen by the Public Administrator. The WTMA and Public Administrator are both new public entities proposed by Sidewalk Labs. Sidewalk Labs proposes that the WTMA function as a division of the Public Administrator, with a steering committee that includes governments and agencies (e.g. Metrolinx, City of Toronto, TTC, Ontario Ministry of Transportation) and private stakeholders. Sidewalk Labs does not propose to own or operate the LRT; this would be left with the TTC.

For more information on the proposed role of the Public Administrator see Volume 3, Chapter 1, page 62 of the MIDP.

4.1.6 Financial Impacts

Sidewalk Labs proposes that the WTMA collect revenues and manage a not-for-profit budget, including setting fees for parking and curb pricing, while investing in capital improvements and operations of mobility systems.

If governments were to proceed with the optional financing proposals for the LRT, the financing costs could be repaid through capturing a portion of increased property taxes. To reiterate, this is only one model for LRT infrastructure financing and other options could be explored.

4.1.7 Risk Identification

Within the mobility proposal, examples of risks to consider include:

- Delayed uptake of autonomous vehicles and a lesser adoption of shared use of ride hailing than anticipated, and its impact on proposed mobility outcomes
- Inherent complexity of establishing the WTMA and associated financial considerations
- Privacy and data governance concerns associated with roadside data collection and mobility-as-a-service tools

Waterfront Toronto is committed to ensuring that the public's concerns are captured in relation to the Mobility proposal, and that mitigation measures and conditions for potential approval are explored.

Questions to Consider - Mobility

- What do you see as the strengths and/or challenges of the mobility proposals?

- Which gaps or challenges (if any) does the proposed Waterfront Transportation Management Association (WTMA) address with respect to mobility within waterfront neighbourhoods? What are the potential benefits and risks of establishing this model?
- Under what conditions (if any) should governments consider the use of tax-increment financing to accelerate deployment of the Waterfront LRT, as proposed by Sidewalk Labs?

4.2 Public Realm

4.2.1 What We Asked For

Waterfront Toronto challenged our Innovation and Funding Partner to propose new methods and strategies for enhancing the public realm as part of Complete Communities. We wanted to understand any potential benefits that technology could bring and how public spaces could be augmented to improve the quality of life for residents, employees, students and visitors to Quayside and adjacent communities.

These goals build upon Waterfront Toronto's foundation of designing and constructing high-quality urban spaces. Our iconic parks, including Sugar Beach and Sherbourne Common in the East Bayfront, and Corktown Common and Underpass Park in the West Don Lands, invite Torontonians into these new neighbourhoods and connect them with the revitalized lakefront. They enhance local ecosystems and provide much-needed amenities for residents.

These goals align with:

- Approved precinct plans for the East Bayfront, Keating Channel and Villiers Island districts.
- City of Toronto *TOcore Building for Liveability* objectives for enhancing outdoor comfort at the interface between buildings and public realm.
- City of Toronto *Complete Streets Guidelines* seek to ensure that streets are safe for all users, and that they include diverse uses including cafes, street trees, and street furniture.
- City of Toronto *Green Streets Technical Guidelines* to facilitate green infrastructure in the public realm.
- City of Toronto guidelines for *Privately-Owned Publicly Accessible Spaces (POPS)* encouraging new open spaces to supplement the public park network, featuring mid-block connections and an active streetscape.

4.2.2 Sidewalk Labs Proposal

Sidewalk Labs proposes a system of open spaces (parks, plazas, streets, ground floor animation) coupled with digital tools designed to encourage people to spend more time outdoors, together.

Sidewalk Labs proposes to activate the ground-floor by providing a flexible interior space (called *Stoa*), a modular heated, lighted, and green paving system, and weather mitigation strategies. These strategies are supplemented by a digital tool called *Seed Space* that manages leasing and operations.

Sidewalk Labs also proposes digital tools to enable residents to activate the public spaces, an app called *Common Space* that can be used to collect data on how people use public spaces, and a platform that would enable individuals to reserve public areas for recreation and/or entrepreneurial purposes. Sidewalk Labs also proposes to comprehensively map underground infrastructure in 3D to facilitate maintenance and reduce time for repairs.

For more information on the proposed Public Realm program see Volume 2, Chapter 2 of the MIDP; for Stoa see Volume 2, Chapter 2, page 154; for Seed Space, see Volume 2, Chapter 2, page 164; and, for proposed digital services, including Common Space, see Volume 2, Chapter 5, page 444-447.

4.2.3 Alignment with Existing Practices

The Sidewalk Labs proposal follows Waterfront Toronto's current approach to designing and constructing streets that connect neighbourhoods and destinations along the waterfront, create pedestrian and cycling-friendly trails, and encourage activation to create vibrant neighbourhoods. The scale and proposed approach to realizing these outcomes, however, deviates from approved plans.

For example, all-weather colonnades are referenced in the *East Bayfront Precinct Plan*, and additionally, the RFP called for the urban and building design to account for seasonal variation. In response, Sidewalk Labs has proposed a suite of strategies to improve outdoor comfort in poor weather conditions, including awning-style 'raincoats' attached to buildings and structures to block wind and cover open spaces.

For more information on proposed outdoor comfort initiatives see Volume 2, Chapter 2, page 167 of the MIDP.

4.2.4 Proposed New Practices

Sidewalk Labs proposes technology-based tools and space management concepts that would extend beyond typical practices on Toronto's waterfront. The proposal asserts that the successful implementation of these concepts and tools in the public realm requires a new approach to governance and funding. Sidewalk Labs proposes the establishment of a new independent not-for-profit organization, called the *Open Space Alliance* (or OSA), to lead programming of public spaces and parks, and assume responsibility for the operations and maintenance of the proposed tools and infrastructure.

Sidewalk Labs proposes that the Open Space Alliance enter into contracts with the City of Toronto and private landowners to manage these public spaces and physical assets. Sidewalk Labs proposes that the City of Toronto direct funding for park operations for applicable sites to the Open Space Alliance, to be complemented by maintenance fees from ground floor and podium-level tenants in the adjacent buildings, as well as sponsorship revenues and concessions from events.

For more information on the Open Space Alliance proposal see Volume 2, Chapter 2, page 178 and Volume 3, Chapter 1, page 69 of the MIDP; and, for a list of the proposed management entities see Volume 3, Supplemental Tables (ST.1).

4.2.5 Privatization of Public Roles or Assets

Sidewalk Labs proposes that the parks and public realm remain under public ownership. The proposed operational roles and responsibilities of the Open Space Alliance, an independent not-for-profit, would replace certain roles of the City of Toronto Parks, Forestry & Recreation Division, including operations and maintenance of public spaces. Correspondingly, Sidewalk Labs proposes that a portion of municipal park funding be directed to the Open Space Alliance.

4.2.6 Financial Impacts

Sidewalk Labs' public realm proposal could result in increased upfront costs, as could additional programming, operational and maintenance costs of the Open Space Alliance.

4.2.7 Risk Identification

Within the public realm proposal, examples of risks to consider include:

- The technical viability, approvability and effectiveness of outdoor comfort proposals.
- The complexity of establishing the Open Space Alliance and ensuring it is appropriately funded.
- Ensuring compliance with the Accessibility for Ontarians with Disabilities Act (AODA).
- The potential for the public use of Stoa space being less than anticipated, particularly in winter months, given its openness to the elements.
- Privacy and data governance concerns associated with the collection of data in public spaces.

Waterfront Toronto is committed to ensuring that the public's concerns are captured in relation to the public realm proposal, and that mitigation measures and conditions for potential approval are explored.

Questions to Consider - Public Realm

- How could the proposals outlined in the Sidewalk Labs MIDP improve or diminish the experience for residents and visitors spending time in waterfront parks and public spaces?
- What do you see as the strengths and/or challenges of the public realm proposals?
- Which gaps or challenges (if any) does the proposed Open Space Alliance, a new non-profit organization, address with respect to parks and public spaces on the waterfront? What are the potential benefits and risks of establishing this model?

4.3 Buildings and Housing

4.3.1 Buildings

4.3.1.1 What We Asked For

Waterfront Toronto challenged our Innovation and Funding Partner to propose new building technologies, systems, materials and design approaches that will set the global standard for low energy design and high performance.

We sought to create a neighbourhood that could respond to current and future trends, including adaptive and inclusive places that respond to changing needs, while continuing to advance a sustainable built environment that exhibits design excellence.

4.3.1.2 Sidewalk Labs Proposal

Sidewalk Labs proposes a mixed-use neighbourhood comprised solely of mass timber buildings. In addition to factory construction of mass timber buildings of up to roughly 30 storeys, the buildings would feature highly adaptable Loft and ground floor Stoa spaces characterized by high ceilings, large floor spans, modular fittings, utility cavities and prefabricated kitchen and bathrooms. These flexible design features, used in certain areas of buildings to enable more rapid reconfiguration of spaces.

Further, Sidewalk Labs proposes a suite of technology that would enable buildings to be more adaptable and flexible, including low-voltage DC power system, mist-based fire suppression, fire resistant and environmentally friendly Shikkui plaster, with real-time monitoring of building performance to meet existing safety codes.

For more information on prefabricated mass timber construction and proposed modular construction technology to enable flexibility, see Volume 2, Chapter 3 of the MIDP.

4.3.1.3 Alignment with Existing Practices

Many aspects of Sidewalk Labs' proposal are consistent with Waterfront Toronto's existing practices for delivering mixed income neighbourhoods that feature design excellence. This includes a focus on high performance buildings, as well as a commitment to ensuring that buildings are flexible for future uses, as outlined in Waterfront Toronto's current *Minimum Green Building Requirements*.

4.3.1.4 Proposed New Practices

The proposal from Sidewalk Labs includes an investment in establishing a mass timber factory in Ontario, however they indicate that this would only be economically feasible with sufficient demand to catalyze the mass timber industry.

Further, Sidewalk Labs indicates that their proposal would require several key amendments to existing regulatory standards, including but not limited to Ontario Building Code restrictions on wood buildings and other new construction materials. Sidewalk Labs has also called for a simplification of use categories within the municipal code, as well as bylaws applicable to the flexible spaces.

4.3.1.5 Privatization of Public Roles or Assets

There is no anticipated privatization of public roles or assets in the Sidewalk Labs proposal for buildings. Existing roles for governments would be unaffected.

4.3.1.6 Financial Impacts

Sidewalk Labs proposes that all buildings will be constructed of mass timber and DC power systems, which could be more costly to build than conventional building methods.

4.3.2 Housing

4.3.2.1 What We Asked For

Waterfront Toronto has a requirement to set aside sufficient land to accommodate 20% of residential units as Affordable Rental Housing, in perpetuity. To date, we have delivered nearly 600 affordable housing units in the West Don Lands and East Bayfront neighbourhoods, including units that give special priority to Indigenous residents, people with disabilities, families, veterans, youth, seniors, and newcomers.

Recognizing the heightened importance of housing affordability, Waterfront Toronto challenged our Innovation and Funding Partner to exceed the Waterfront Toronto minimum requirements for Affordable Rental Housing and develop a viable, replicable and implementable delivery model, and financing strategies for additional mixed-income housing—particularly moderately-priced workforce rental housing—that engages the private sector and requires minimal government funding.

4.3.2.2 Sidewalk Labs Proposal

Sidewalk Labs proposes a housing strategy that includes a variety of financial and design tools to improve affordability for different household demographics. This strategy proposes to address housing affordability through a 40% below-market housing program rooted in varied occupancy types and tools. Sidewalk Labs also indicates that mass timber construction could accelerate construction timelines and, as such, lower financing costs.

The proposed mixed-use neighbourhood at Quayside would include a residential program comprised of a 50/50 split between rental housing and ownership. Within this program, Sidewalk Labs has identified a combination of 20% affordable rental housing, of which 5% are deeply affordable; 15% mid-range rental units to meet the needs of those who do not qualify for affordable housing and for whom market rent is unattainable; and, 5% of the program targets a new hybrid ownership/rental occupancy type called "Shared-Equity Housing", which, in partnership with a non-profit housing provider, would allow potential residents to own a percentage of their unit and pay rent on the balance, thus overcoming the key financial barrier of a significant down payment to gain entry into home-ownership.

For more information on the proposed housing program, see Volume 2, Chapter 3, page 270 of the MIDP; and, for the proposed Share Equity Housing occupancy model see Volume 2, Chapter 3, page 274.

4.3.2.3 Alignment with Existing Practices

Sidewalk Labs proposes a variety of affordable rental housing options, contributing to Waterfront Toronto's approach to building complete communities.

4.3.2.4 Proposed New Practices

In addition to the new methods and building systems described above, Sidewalk Labs proposes the establishment of a new public-private financing entity that administers below-market housing, the *Waterfront Housing Trust*. Sidewalk Labs proposes that the Public Administrator would act as the sole trustee of this new entity. The proposal also suggests that this entity could offer alternative financing, such as low-cost loans to developers.

For more information on the proposed Waterfront Housing Trust see Volume 3, Chapter 1, page 69 and Volume 2, Chapter 2, page 285 of the MIDP.

4.3.2.5 Privatization of Public Roles or Assets

There is no anticipated privatization of public roles or assets in the Sidewalk Labs proposal for housing affordability. All existing roles for governments would be unaffected.

4.3.2.6 Financial Impacts

To enable the 40% *below market program*, with a decreased reliance on public sector funding, Sidewalk Labs has proposed to establish three new sources of funding:

- First, all market ownership units would be assessed with a 1% Condo Resale Fee – meaning that upon resale of the market unit, 1% of the sale price would be routed to a publicly-administered Waterfront Housing Trust to support affordable housing. This approach is proposed to ensure market owners are assisting with broader housing affordability goals.
- Second, Sidewalk Labs also proposes a residential program with smaller, more efficient housing units, referred to as *Affordability by Design.* A smaller unit size would allow for a greater number of lower-cost units within the same building footprint.
- Lastly, a mass timber supply chain, coupled with a digital management system that would coordinate the entire supply chain from start to end, would accelerate construction times, which could add value to public lands due to higher certainty around timing and lower risk for developers.

Of note, Sidewalk Labs has offered to contribute $77 million of private capital to support the creation of the below-market housing program at Quayside.

For more information on the proposed Affordability by Design concept see Volume 2, Chapter 3, page 260 of the MIDP; and, for Sidewalk Labs' proposed housing funding sources, see Volume 2, Chapter 3, page 279.

4.3.3 Risk Identification - Buildings and Housing

Within the buildings and housing affordability proposal, examples of risks to consider include:

- Ability to deliver a 30 storey tall timber building and the complexity of obtaining the necessary approvals to do so.
- The viability of new construction methodologies leading to reduced construction times and the mechanism by which this leads to a reduction in the cost of housing.
- Reliance on public funding programs that may not be offered throughout the entirety of the project timelines.

Waterfront Toronto is committed to ensuring that the public's concerns are captured in relation to the Buildings and Housing Affordability proposal, and that mitigation measures and conditions for potential approval are explored.

Questions to Consider - Buildings and Housing

- What do you see as the strengths and/or challenges of the building and housing proposals?
- Under what conditions would you support the construction of efficient units and shared spaces to increase the supply of affordable housing on the waterfront, as proposed in the MIDP?
- What are your initial impressions of the proposed Waterfront Housing Trust and 1% Condo Resale Fee? What are the potential benefits and risks of these proposals?
- To what extent should residential buildings on the waterfront be constructed from mass timber, versus other typical building materials such as concrete or steel?

4.4 Sustainability

4.4.1 What We Asked For

Waterfront Toronto challenged our Innovation and Funding Partner to propose a new model for urban development that could encourage market transformation towards climate-positive city building. Among our aspirations, we sought pragmatic solutions to reducing greenhouse gas

(GHG) emissions and recognized that an investment would be needed to deploy and showcase these innovative approaches to low-carbon city building.

Achieving this level of carbon reduction at this scale would be unprecedented in North America and would position Toronto's waterfront as a globally significant demonstration project.

Government objectives, policy documents or frameworks guiding our aspirations include the following:

- *C40 Cities Climate Positive Development Program*, which challenges participants to design neighbourhoods with annual operational GHG emissions that are less than zero by reducing emissions from buildings, waste and transportation and offsetting any remaining emissions by exporting clean energy or creating green spaces.
- City of Toronto TransformTO Climate Action Strategy, which calls for an 80% reduction in GHGs by 2050 and near-zero emission buildings by 2030.
- A Made-in-Ontario Environment Plan, which reinforces a path to reduce emissions by 30% below 2005 levels by 2030 (aligned with Canada's commitments to the *Paris Agreement*).

4.4.2 Sidewalk Labs Proposal

Sidewalk Labs has proposed a plan for enabling climate positive development through a variety of building and infrastructure systems.

Inspired by *Passive House* construction methods, Sidewalk Labs proposes the use of highly-insulated and airtight buildings with active energy management (including *automated schedulers* to control appliances, blinds, HVAC and lighting), supplied with *renewable energy* and fossil-fuel-free heating and domestic hot water, a transportation system that reduces the use of personal automobiles, and a vacuum waste system (with digital tools to encourage waste reduction and better sorting) to decrease solid waste sent to landfill.

The MIDP indicates that these strategies would reduce per capita GHG emissions by 85% at Quayside, compared to the Toronto average. Sidewalk Labs also suggests that GHG emissions could be reduced by an additional 4%, if these strategies were extended over the geography of the proposed IDEA District.

Further, Sidewalk Labs proposes to capture sewer heat from the Ashbridges Bay Wastewater Treatment Plant to heat buildings, and to export excess waste heat to adjacent neighbourhoods, which could result in the district qualifying as climate positive.

4.4.3 Alignment with Existing Practices

Applying exemplary sustainability standards for buildings on public land is consistent with Waterfront Toronto's Minimum Green Building Requirements, in effect since 2006.

Sidewalk Labs proposes that these standards be updated to include Passive House energy targets, limits on greenhouse gas intensity, use of active energy management tools, use of sustainable materials, as well as obligations to connect to thermal and electrical grids to access low-carbon energy. These proposals are ambitious and well-aligned with existing practices.

4.4.4 Proposed New Practices

Sidewalk Labs describes a suite of new technological, operational and financial concepts, which would affect the design of buildings and advanced infrastructure systems at Quayside.

Sidewalk Labs proposes advanced infrastructure systems that would supply buildings with low-carbon thermal and electrical energy, reduce solid waste sent to landfill with pneumatic tubes and automated sorting, and actively manage stormwater before entering the municipal sewer system.

Sidewalk Labs also proposes mechanisms to actively monitor and manage the energy consumption in buildings, solid waste production and stormwater flows. The data collected would be used to track performance in real-time and to optimize operations.

To monitor and manage these new systems and frameworks, Sidewalk Labs proposes that a new management entity under the new Public Administrator, called the *Waterfront Sustainability Association,* enforce service contracts with private third-party operators of these systems. While some of these systems are regulated (e.g. electricity), some are not (e.g. solid waste collection from multi-residential buildings), and none are typically administered by a district authority.

4.4.5 Privatization of Public Roles or Assets

There would be no privatization of public services associated with this section of the proposal from Sidewalk Labs. Existing municipal utility services, such as electricity distribution by Toronto Hydro, wastewater collection and water distribution by Toronto Water, would be unaffected.

Existing private utilities (such as district energy, waste collection from commercial and multi-residential buildings, behind-the-meter renewable energy and battery storage, as well as private cisterns to manage stormwater within development blocks) would remain as private services.

Of note, Sidewalk Labs proposes that they lead preliminary design of these advanced systems and subsequently undertake competitive procurement to solicit private third-party operators.

4.4.6 Financial impacts

Exemplary requirements aiming to achieve public policy objectives may increase costs (infrastructure, development, etc.) and therefore could affect the value of public lands resulting in lower revenues to governments on the sale of those lands. In the case of the green building requirements, the significant environmental benefits, including reduced GHG emissions, must be weighed against the lower anticipated revenues. This is in line with Waterfront Toronto's business-as-usual approach.

In some cases, advanced systems, such as a low-carbon thermal grid, are proposed to replace private infrastructure, such as natural gas distribution. As such, these avoided costs would be replaced by a levy paid by real estate developers to private infrastructure operators (Local Infrastructure Charge) through the public administrator, at an equal value to the avoided cost.

4.4.7 Risk Identification

With respect to the sustainability proposal, examples of risks to consider include:

- Feasibility of capturing waste heat from the Ashbridges Bay Wastewater Treatment Plant.
- Privacy implications of home automation technologies and real time performance monitoring.
- Inherent governance complexities of the proposed Waterfront Sustainability Association (WSA).

Waterfront Toronto is committed to ensuring that the public's concerns are captured in relation to the sustainability proposal, and that mitigation measures and conditions for potential approval are explored.

Questions to Consider - Sustainability

- To what extent should the public sector be prepared to subsidize climate positive development, and why?
- To what extent do you support building automation/data collection to advance sustainability and utility affordability goals at Quayside, and why?
- To what extent do you support the development of a distributed energy model with private utilities to advance climate positive objectives and promote resiliency at Quayside, and why?
- Are there any elements of the sustainability strategy that are not explained fully enough for you to comment on? If yes, please outline which areas/initiatives require further clarification.
- What are your initial impressions of the Waterfront Sustainability Association? What are the potential benefits and risks of establishing this model?

4.5 Digital Innovation

4.5.1 What We Asked For

With a legacy of enabling digital infrastructure and ubiquitous connectivity, Waterfront Toronto sought to further advance technology-enabled, inclusive and connected communities with our Quayside Innovation and Funding Partner. Our aim is to create a neighbourhood that leverages the strengths of world-class digital infrastructure to advance our concurrent goals of sustainability, improved mobility, economic development and to support data-informed decision-making for residents, visitors, investors, employers and service providers.

We also outlined our commitment to work with our selected Innovation and Funding Partner to identify the required governance constructs that could assist in stimulating the growth of an urban innovation cluster on Toronto's waterfront, including new demonstration spaces, project testbeds, and industry-academic partnerships. These initiatives would rely upon a robust network of digital infrastructure.

In response to these objectives, Sidewalk Labs has made a number of proposals which are intended to build upon, replace, or otherwise enhance this digital infrastructure.

Note: The *Urban Data Trust* described in this section will be discussed in Chapter VII of this document on Privacy and Data Governance.

4.5.2 Sidewalk Labs Proposal

First, Sidewalk Labs proposes to extend ubiquitous internet connectivity with Waterfront Toronto's existing telecommunications partner, *Beanfield Metroconnect*. This would include leveraging advances in network management to provide secure Wi-Fi connections throughout the project area that provides the ability for residents and employees to maintain a connection to their home or office networks in any location. Sidewalk Labs also proposes to explore the use of a technology called "*Super-PON* (Passive Optical Network)" to create higher bandwidth than traditional residential fibre-optic networks.

Second, Sidewalk Labs proposes to deploy a standardized mount (an "urban USB" referred to as *Koala* or a *Koala standardized mount*) on light poles and other street fixtures that would allow sensors and other devices to be quickly installed and connected to both power and the internet.

Finally, Sidewalk Labs intends to explore the use of a decentralized digital credential system designed to allow individuals to provide only the minimum necessary information to complete a transaction (for example, an assertion that an individual is a resident of Quayside, without disclosing their name or address). The design of this system would allow this to be accomplished without third parties having visibility into the transaction. Decentralized digital credential systems are being developed by other parties around the world; Sidewalk Labs acknowledges that they would explore how they could be integrated into its digital services.

For more information on the digital infrastructure proposals see Volume 2, Chapter 5 of the MIDP; for the proposed Super-PON technology see Volume 2, Chapter 5, page 386 of the MIDP; for the proposed standardized mounts see Volume 2, Chapter 5, page 394 of the MIDP; and, for the proposed digital credential system see Volume 2, Chapter 5, page 398 of the MIDP.

Priority Considerations: Sidewalk Labs has initial proposals relating to data collection, data use and digital governance. Waterfront Toronto will require additional information to determine whether they comply with applicable laws and respect Waterfront Toronto's digital governance principles.

4.5.3 Alignment with Existing Practices

Since 2008, Waterfront Toronto has had an agreement with Beanfield Metroconnect as the non-exclusive provider for connectivity in all new neighbourhoods. This agreement includes the provision of a 1Gbps symmetrical services, priced well below traditional market rates and pricing structures for affordable housing residents (in some cases as low as $0 per month). Beanfield is obligated to maintain the network's service among the best in the world for at least 10 years after the completion of the final building in the waterfront.

Sidewalk Labs would be obligated to work with Beanfield Metroconnect in the provision of its ubiquitous network connectivity.

4.5.4 Proposed New Practices

The Sidewalk Labs proposal primarily sets out potential updates and/or improvements to existing practices (for example internet access, sensor installation, proving a credential), as opposed to net-new practices. Each of these proposals is presented as being complementary to, not exclusive of, existing practices.

4.5.5 Privatization of Public Roles or Assets

To the extent that standardized mounts (Koala) are sold outright and operate independently from Sidewalk Labs, no privatization of a public asset would occur. However, privatization could occur if Sidewalk Labs retains an interest in the mount, or the power, or network connection running to it. The intended model is not specified in the proposal.

It is also possible that a decentralized credential system could involve the issuance of verified credentials by private actors, replacing or operating alongside government-issued identifiers. However, this proposal is at an exploratory stage and such systems are being developed independently of this proposal. Waterfront Toronto is aware of significant competitive developments regarding these solutions that need to be explored as part of a due diligence process during the evaluation phase.

4.5.6 Financial Impacts

First, Sidewalk Labs states in the proposal that ubiquitous connectivity "would only become financially sustainable at a larger service area, given the number of residents or businesses needed to recoup the initial investment." Waterfront Toronto's existing contract with Beanfield Metroconnect accomplishes this scale using traditional fibre-based technologies.

Sidewalk Labs also proposes certain requirements be placed on buildings in the neighbourhood to support its SuperPON network. It is unclear whether these requirements would have a significant impact on building costs beyond what is already required in the agreements with Beanfield Metroconnect and Waterfront Toronto's development partners.

Second, Koala mounts are identified as a "Purposeful Solution" which would be provided at cost. Given the number of mounts potentially required within the neighbourhood (and the need to ensure that each mount has access to both power and network connectivity), this may be a significant initial financial outlay. However, it is possible that these costs could be recovered based on cost savings for the installation of sensors, as compared to traditional mounts. There is an additional financial consideration for third party early adopters of the mount specifications, who may be required to retrofit their existing equipment to attach to the Koala devices. It is unclear if Sidewalk Labs is prepared to contribute to this initial cost to encourage the use of Koala.

The potential for increased indirect costs associated with standardized mounts may also exist, including rising costs of sensors, lighting, signage, etc. should competition be lessened due to few companies opting to make compatible products, or companies increasing prices to make existing products compatible.

For more information on proposed Purposeful Solutions see Volume 3, Chapter 2, page 123 of the MIDP.

4.5.7 Risk Identification

Within the digital innovation proposal, examples of risks to consider include:

- Reliance on third party decisions (such as the creation of Koala-compatible devices, or integration of the chosen digital credential system) to achieve benefits, and/or creation of a preferential environment for certain vendors who have partnerships or capacity to take such actions.
- Potential that a bad actor could now, or based on a future modification to technology, gain access to all data flowing through Koala mounts, or prevent public realm data from being shared in an open, non-discriminatory manner.

- Potential that reducing the burden of installing devices that collect personal information could lead to increased surveillance (for instance, allowing cameras to rapidly be deployed prior to a protest).
- Potential that Koala mounts or other Sidewalk Labs-installed technology could be a target for malicious activity that disrupts infrastructure.

Waterfront Toronto is committed to ensuring that the public's concerns are captured in relation to the Digital Innovation proposal, and that mitigation measures and conditions for potential approval are explored.

Questions to Consider – Digital Innovation

- What do you see as the potential benefits and risks of the digital innovation proposals put forward by Sidewalk Labs?
- What assurances should be put in place to ensure that neither Sidewalk Labs nor any other party obtains monopolistic control over digital infrastructure?
- What provisions should be in place, should infrastructure elements fail or no longer be supported by Sidewalk Labs?
- Should the MIDP consider solutions—such as a decentralized credential service—which do not focus on solving specific urban challenges? Why or why not?
- Are there specific areas of the digital innovation proposals that you believe you need additional assistance in understanding prior to being able to determine whether or not you support these elements? If yes, please provide the topics that you feel you need this additional level of information for.

Chapter V: MIDP Volume 3 – The Partnership

In this section, Waterfront Toronto is working to highlight the key aspects of the partnership and commercial proposal from Sidewalk Labs and how they align or differ from the business as usual approach to waterfront revitalization.

5.1 The Innovative Design and Economic Development Acceleration (IDEA) District

Volume 3 is framed by the IDEA District proposal that is introduced in the Setting the Stage, Chapter II, of this Note to Reader. In this section we will touch on the three core elements of the IDEA District and how this governance proposal aligns with and/or differs from existing practices guiding waterfront revitalization. The three core components are the Public Administrator, the Innovation Framework and the Financing Mechanisms.

5.1.1 Public Administrator

Sidewalk Labs proposes roles for the public sector in establishing and operating the IDEA District, as follows:

1. Set Innovation and Development Objectives for the IDEA District.
2. Consistent with those objectives, impose additional requirements on developments within the IDEA District.
3. Determine whether new developments can access the regulatory relief.
4. Perform precinct and infrastructure planning for waterfront development.
5. Certify development and construction permit applications before submission to City agencies.
6. Develop a master transportation and infrastructure plan for approval by relevant City authorities, in phases, and give final approval before construction.
7. Receive and direct infrastructure charges for the infrastructure proposed for, or built in, the IDEA District.
8. Enter into and oversee agreements with developers, vendors, and partners, including Sidewalk Labs as Innovation and Funding Partner.

While Sidewalk Labs identifies Waterfront Toronto as a potential Public Administrator, our current mandate enables us to perform some of these roles, but not all. To realize this proposal, additional public sector involvement would be needed.

Due to the scale and required oversight for the project, Sidewalk Labs has also proposed several new entities that would be established within the purview of the Public Administrator:

- *Waterfront Transportation Management Association:* This division of the Public Administrator would be responsible for coordinating mobility systems within the IDEA District.
- *Waterfront Sustainability Association:* This division of the Public Administrator would be responsible for administering private delivery entities and reporting on sustainability performance and GHG emissions.
- *Waterfront Housing Trust:* With the Public Administrator as the sole trustee, this new entity would collect revenues from the 1% Condo Resale Fee and allocate it towards new affordable housing initiatives.

Questions to Consider – Public Administrator

- What information would you need to assess whether these governance proposals would work well for Toronto?
- What do you see as their potential benefits and risks? And under what conditions, if any, do you think they could be useful to consider?

5.1.2 Innovation Framework

The Innovation Framework is proposed as a package of targeted regulatory adjustments and enhanced requirements on development (the Innovation Design Standards and Guidelines) that would apply in the IDEA District. Requiring more than business-as-usual from private sector developers is a common practice for Waterfront Toronto. However, the concept of certain adjustments to regulatory requirements necessary to implement the MIDP, depending on the specific details, may be beyond Waterfront Toronto's standard practices and authority.

Questions to Consider – Innovation Framework

- What do you see as the potential benefits and risks of moving forward with Sidewalk Labs' proposals for targeted regulatory adjustments and enhanced requirements on development?
- Under what conditions, if any, do you think they could be useful to consider?

5.1.3 Financing Mechanisms

Several of the financing tools proposed by Sidewalk Labs align with existing practices, including city fee and development charge credits, and the reinvestment of land sale proceeds into continued revitalization in the waterfront. However, the proposed municipal and local infrastructure contributions, and the potential use of tax increment financing is beyond the authority and typical practices of Waterfront Toronto. Tax-increment financing is rarely used in Canada.

Additionally, Sidewalk Labs proposes that the IDEA District could be established through existing legislative tools, including the use of Section 28 of the Planning Act to establish a *Community Improvement Project Area*.

For more information on the proposed IDEA District see Volume 3, Chapter 1 of the MIDP.

Questions to Consider – Financing Mechanisms

- What do you see as the potential benefits and risks of moving forward with financing mechanisms proposed by Sidewalk Labs?
- Under what conditions, if any, do you think they could be useful to consider?

5.2 Innovation and Funding Partnership Proposal

The MIDP outlines the four roles that Sidewalk Labs proposes to undertake. These have been set out in Chapter II: Setting the Stage of this Note to Reader.

These roles are further assessed in Appendix B in relation to their compliance with the RFP and PDA.

For more information on the proposed roles of Sidewalk Labs see Volume 3, Chapter 2 of the MIDP.

5.3 Transaction Economics

Within the Draft MIDP, Sidewalk Labs has proposed three financial streams for the public sector: (1) Real Estate, (2) Infrastructure, and (3) Intellectual Property.

Sidewalk Labs also proposes a number of revenue streams for themselves, which are not discussed in this Note to Reader, but are detailed in the MIDP.

For more information on the proposed transaction economics see Volume 3, Chapter 3 of MIDP; and, for the potential Sidewalk Labs revenue streams see Volume 3, Chapter 3, page 179.

5.3.1 Transaction Economics - Real Estate

5.3.1.1 What We Asked For

Instead of seeking a traditional real estate developer, Waterfront Toronto's RFP sought an Innovation and Funding Partner that would help to create a vision and business model for a transformational, mixed-use project.

5.3.1.2 Existing Practices

Waterfront Toronto's mandate is to revitalize the former industrial lands on the waterfront, which requires bringing these lands to market while achieving public policy objectives, including sustainability, affordable housing, design excellence and digital inclusion. Waterfront Toronto's traditional approach to land valuation begins with a fair market value assessment of the land and allows for deductions based on achieving agreed to public policy objectives.

5.3.1.3 Proposal from Sidewalk Labs

In the MIDP Sidewalk Labs outlines three scenarios for calculating the land value. The first is "highest and best", which is a real estate industry term and seeks to maximizes profit within the allowable land use policy. The second is a "policy proposal" scenario that aligns with Waterfront Toronto's existing practice (as mentioned above). The last is the "innovation" scenario, in which the innovations Sidewalk Labs intends to implement at Quayside would likely increase construction cost beyond the "policy proposal" and reduce land value to an even greater extent. Sidewalk Labs states that they are prepared to fund this category of innovations and is proposing that the land be sold under the "policy proposal" value.

Sidewalk Labs' proposal regarding real estate is aligned with Waterfront Toronto's existing practices of beginning with fair market value and adjusting for the achievement of Waterfront Toronto's public policy objectives. Waterfront Toronto will be undertaking a comprehensive review to assess the extent to which the adjustments to land value proposed by Sidewalk Labs are aligned with Waterfront Toronto's priority outcomes as well as whether the financial tradeoffs to land value are financially justifiable.

Sidewalk Labs is proposing the lands in Quayside and Villiers West be sold or leased directly to them with Sidewalk Labs acting as the lead developer, in partnership with other developers and investors.

Lastly, should Sidewalk Labs turn greater than expected profits, these would be shared with Waterfront Toronto and its government partners.

For more information on the proposed transaction economics, see Volume 3, Chapter 3 of the MIDP.

Priority Considerations: To reiterate, should the MIDP go forward, it should be on the basis that Waterfront Toronto lead a competitive, public procurement process for developer(s) to partner with Sidewalk Labs.

5.3.1.4 Risk Identification

Within the real estate proposal, examples of risks to consider include:

- If Waterfront Toronto transacts at the "policy proposal" value, we need to be confident that the purchaser of the land can deliver on the agreed to policy objectives.
- There is a risk that there will be insufficient market interest from private sector developers to partner with Sidewalk Labs given the lower than average developer profits that the Quayside project is currently expected to generate.

Questions to Consider – Economics of the Real Estate Transaction

- What do you see as their potential benefits and risks of moving forward with the economics proposed by Sidewalk Labs for the real estate transaction?
- What suggestions, if any, do you have for Waterfront Toronto as they review this proposal?

5.3.2 Transaction Economics - Infrastructure

5.3.2.1 What We Asked For

Waterfront Toronto's RFP called for an Innovation and Funding Partner to advance a new market model for climate-positive urban developments, including new partnership models to secure funding for the infrastructure required to support future phases of revitalization. We set out to explore alternative types of infrastructure that would achieve our policy objectives, and to develop funding and investment models with the private, public and not-for-profit sectors that could enable our projects and achieve these ambitious outcomes.

5.3.2.2 Proposal from Sidewalk Labs

In the MIDP Sidewalk Labs identifies two major types of infrastructure. There is municipal infrastructure, which includes things such as parks, water mains, sewers, and light-rail transit (LRT). There is also advanced infrastructure that focuses on new types of private infrastructure that would be dedicated to issues such as mobility and sustainability.

Sidewalk Labs has proposed optional models for financing for both the municipal infrastructure and advanced infrastructure required for the next phase of waterfront revitalization and to meet the project objectives.

i.   **Upfront Optional Financing for Municipal Infrastructure**

Sidewalk Labs indicates a willingness in the MIDP to explore various options with governments for implementing enabling infrastructure, such as the LRT. One such option is that Sidewalk Labs offers upfront financing for the municipal infrastructure at a fixed rate of return to be negotiated in the future. In the MIDP, Sidewalk Labs reinforces that any such financing is presented as optional.

Sidewalk Labs has proposed various value capture mechanisms to fund infrastructure. The proposed value capture mechanisms would be administered by the Public Administrator. It is important to note that the value capture mechanisms and the role of the Public Administrator are outside of Waterfront Toronto's mandate and need to be explored further.

ii.   Implementation and Optional Financing for Advanced Systems

In order to achieve the project objectives, Sidewalk Labs proposes that the following advanced infrastructure systems are required. They are proposing private operators for each, except for district parking management and dynamic streets, which would be operated by the WTMA.

- **Advanced power grid:** Complementing Toronto Hydro's electricity distribution, including rooftop solar photovoltaic generation, battery energy storage and energy management.
- **Stormwater management upstream of municipal sewers:** Sensors and controls of private stormwater systems from private buildings. This infrastructure would be in the public realm.
- **Fiber-optic network:** With existing partners, deliver Super-PON for internet connectivity.
- **Freight system:** Underground self-driving dollies for the delivery of packages that would be connected to a consolidation centre.
- **Vacuum waste system:** A pneumatic waste collection system from buildings and public spaces, accompanied by a pay-as-you-throw waste chute with downstream monitoring.
- **Thermal network:** A fossil-fuel-free district energy network connecting buildings to low-grade waste heat sources such as Lake Ontario, or industrial facilities in the area.
- **District parking management:** New system to manage stacked parking equipment, EV charging and attendant-based retrieval from off-site parking.
- **Dynamic streets:** Paving technology featuring lighting, heating during the winter and digital infrastructure for traffic management.

Sidewalk Labs proposes a framework for oversight of these companies to ensure they are acting in the best interest of the residents, including several management entities, some of which would fall under Public Administrator to fulfill that role, while others would be managed by a separate public body. These proposed entities include the Waterfront Transportation Management Association and Waterfront Sustainability Association.

At Quayside and Villiers West, Sidewalk Labs is proposing to design and construct the advanced infrastructure before transferring to the private operators. Throughout the remainder of the IDEA District, the advanced infrastructure would be constructed and operated by private operators selected by the Public Administrator.

The proposal outlines how these advanced systems would replace typical business-as-usual utility systems, such as natural gas distribution, and this would result in a payment (a *local infrastructure charge)* being made by vertical developers to the third-party advanced system operators to offset cost premiums.

5.3.2.3 Privatization of Public Roles or Assets

There is no privatization of public roles or assets proposed for infrastructure development or operations. The Sidewalk Labs proposal follows existing models where private operators, such as Enwave, Enbridge, Rogers, Bell and Beanfield Metroconnect, deliver certain infrastructure services with oversight by a public regulator (for example, the Ontario Energy Board and the CRTC).

The proposal from Sidewalk Labs indicates that the dynamic streets (including LED lighting, heating and digital traffic management) would replace typical municipal streets, however they would be owned by the City of Toronto as a public right-of-way and operated under the WTMA with oversight by the Public Administrator.

The proposed municipal infrastructure would remain as municipal systems, with typical City of Toronto operations and maintenance.

5.3.2.4 Financial Impacts

In order to achieve the project objectives, Sidewalk Labs proposes residents of the IDEA District would be required to use the services provided by the advanced infrastructure operators. The design, construction and approval of these systems would be funded by Sidewalk Labs and other private sector operators, but future user rates for utilities, such as electricity and thermal energy, would need to be paid for by consumers. Currently, Sidewalk Labs' analysis show that they would need to make a supplemental innovation investment for Quayside and Villiers West, in order to maintain user rates within 5% to 10% of business-as-usual.

Additionally, the proposed advanced infrastructure systems could be financed through *Sidewalk Infrastructure Partners*, a new infrastructure fund supported by Alphabet Inc. (the parent company of Sidewalk Labs) and Sidewalk Labs.

For more information on Sidewalk Infrastructure Partners, see Volume 3, Chapter 2 page 147 of the MIDP.

5.3.2.5 Risk Identification

Within the infrastructure proposal, examples of risks to consider include:

- Escalation of user utility rates beyond the projected 5% to 10%, as a result of cost overruns or failed infrastructure systems that must be replaced.
- Inherent complexities of the proposed governance model for mobility and sustainability infrastructure systems, which could affect viability of integrated infrastructure systems.

Waterfront Toronto will ensure that concerns are captured in relation to the infrastructure proposal, and that mitigation measures and conditions for potential approval are explored.

Question to Consider – Economics of Infrastructure

- What do you see as the potential benefits and risks of moving forward with the economic transactions proposed by Sidewalk Labs for municipal infrastructure and advanced infrastructure?

- What suggestions, if any, do you have for Waterfront Toronto as they review these infrastructure proposals?

5.3.3 Transaction Economics – Intellectual Property

5.3.3.1 What We Asked For

The 2017 RFP stated that Waterfront Toronto and the selected Innovation and Funding Partner would lead development of an investment strategy for the project. As part of this, the strategy was to address "ownership and sharing of intellectual property resulting from the Project," and the Partner was required to submit "a preliminary framework for a potential management approach for Intellectual Property introduced to or developed through the project, and any revenue sharing between Waterfront Toronto and the Partner."

5.3.3.2 Sidewalk Labs Proposal

The framework put forward by Sidewalk Labs has two principal elements:

i. Profit Sharing/Testbed

In the MIDP, Sidewalk Labs states that "neither Waterfront Toronto nor the public is primarily a technology developer," and asserts that co-created technology (for which there would be co-owned Intellectual Property) is not likely to arise. [Notably, while Waterfront Toronto acknowledges it is not a technology company, we do not accept that it necessarily follows that we have not, and will not in the future, participate in the co-creation of technology.] Notwithstanding this assertion, even in absence of a co-creation role, the public <u>must</u> benefit from: (i) products or other solutions that would not have been created were it not for the Quayside project, and (ii) products and solutions that materially benefit from being exposed to the Quayside environment in their product development, testing, or early commercial release.

To address Waterfront Toronto's objectives, Sidewalk Labs has proposed that the public sector receive 10% of Sidewalk Labs' global profits from "Testbed-Enabled Technologies" for a period of 10 years, starting when each technology is sold to a second customer. A "Testbed-Enabled Technology" is defined as a technology that is first deployed at scale in the project area, and for which the following conditions are established by the relevant stakeholders, as and if applicable to each technology:

- Access to mount or deploy the technology in physical spaces;
- A mandate to use common software standards that enable compatibility and interoperability (for instance, all building access systems must use the same open standard);
- Approvals in place, up front, and regulatory conditions that support the physical, digital and operational conditions required;
- Sufficient scale for efficacy or to otherwise achieve desired outcomes; and,
- An ecosystem that provides the opportunity for all the physical, software and regulatory conditions simultaneously.

Implementation agreements would establish a process to determine, prior to deployment, whether the product is a Testbed-Enabled Technology.

ii. Patent Pledge

Sidewalk Labs proposes to pledge not to assert any granted patents in Canada which cover the software or hardware that enable digital innovations related to the project, so long as companies using those patents do not assert their own patent rights against Sidewalk Labs or its affiliated companies. The intent of such a pledge is to facilitate innovation and collaboration by third

parties, including Canadian technology companies, in Quayside free of the threat of patent litigation.

Sidewalk Labs states that it will publish the full content of the pledge on its website, along with a list of patents included in the pledge as they are developed.

For more information on the proposed transaction economics for technology deployment see Volume 3, Chapter 2 of the MIDP; for the proposed profit-sharing for testbed-enabled technologies, see Volume 3, Chapter 2, page 126; and, for the proposed patent pledge see Volume 3, Chapter 2, page 127.

5.3.3.3 Additional Considerations - IP Identification

Waterfront Toronto has given significant preparatory consideration to the issue of Intellectual Property and how value can be appropriately captured.

For example, following the receipt of an early draft version of the Pillar content of Volume 2 of the MIDP, Waterfront Toronto examined whether there was any potential intellectual property that may be created through this project, and what contribution Waterfront Toronto or the project has made, or will make, to it (e.g. playing a co-creation role, acting as a testbed, etc.). Below is an excerpt from that exercise:

Solution	Contribution Type
MODUS: A mobility management system capable of coordinating all streets, signals, lanes and trip options in line with local objectives.	Testbed-Enabled Technology
Autonomous Building Schedulers: Systems to help schedule and manage systems, equipment, and appliances that impact energy use and GHG emissions, by integrating relevant data from building systems to improve coordination, incorporating external data sources, such as tenant temperature preferences, operating budgets, building occupancy, weather forecasts, and real-time energy prices; and making decisions to improve equipment control and scheduling consistent with monthly energy goals.	Testbed-Enabled Technology

5.3.3.4 Risk Identification

Waterfront Toronto has also identified a number of challenges and risks associated with the sharing framework in the MIDP. For instance:

- Will the project area be sufficient to meet the scale requirement for a "Testbed-Enabled Technology"?
- A profit-sharing model creates challenges related to calculation or audit, as opposed to a revenue sharing model.
- While the Patent Pledge is useful, it does not obviate the need for other technology companies, including Canadian companies, operating in Quayside to obtain appropriate intellectual property protection when they sell into markets outside of Canada.
- What will the impact of the Patent Pledge be in helping to create a competitive innovation environment in Quayside, particularly for those suppliers who choose to take advantage of the patent pledge for their own Intellectual Property strategy?

Question to Consider – Economics of Intellectual Property

- What do you see as the potential benefits and risks of moving forward with the intellectual property transactions proposed by Sidewalk Labs?
- What suggestions, if any, do you have for Waterfront Toronto as they review these intellectual property proposals?

5.4 Achieving Waterfront Toronto's Priority Outcomes

This section of the MIDP presents Sidewalk Labs' argument for the necessity of scale, defined as the IDEA District, to achieve the priority outcomes identified by Waterfront Toronto.

For more information on the proposal to achieve Waterfront Toronto's Priority Outcomes see Volume 3, Chapter 4 of the MIDP.

Priority Considerations: While Waterfront Toronto recognizes the value of exploring outcomes at a scale beyond Quayside, it was originally contemplated that should the MIDP move forward, Waterfront Toronto must see how effectively our priority outcomes and the project objectives are achieved at Quayside, while understanding the financial trade-offs of doing so. Quayside as a first step allows Waterfront Toronto and its government partners to assess how/if to move forward. Any expansion beyond the Quayside site will be up to Waterfront Toronto and its government partners.

5.5 Implementation

Sidewalk Labs proposes a process and timeline for the implementation of the MIDP. Given the stakeholder and public engagement that is required, and the changes to the MIDP that may result from this engagement, the timelines presented are a high-level guide only. If all or some of the MIDP proposals are approved then the next step would be for Waterfront Toronto and Sidewalk Labs to negotiate several implementation agreements before starting the planning and development approvals process. The proposed timelines will need to be further reviewed throughout the evaluation to determine their viability.

Appendix A: Waterfront Toronto Process Overview provides more information on the many steps that would need to be completed prior to any potential construction beginning on Quayside.

For more information on the implementation proposal see Volume 3, Chapter 5 of the MIDP.

5.6 Stage Gates and Risk Mitigation

Sidewalk Labs has proposed a series of stage gates in order to incrementally progress in phases through the IDEA District.

For more information on the proposed stage gates and risk mitigation see Volume 3, Chapter 6 of the MIDP.

5.7 Overview of Participants of the IDEA District

This section provides a table of possible participants in the IDEA District and is a useful starting point to understanding how the IDEA District could function. How the IDEA District would work, and who participates, will be an important issue to address in the upcoming public engagement.

For more information on the proposed participants of the IDEA District see Volume 3, Chapter 7 of the MIDP.

Chapter VI: Risk Assessment Process

Waterfront Toronto is currently undertaking a thorough risk assessment that is being led by KPMG. After a preliminary exercise, we have identified risks of varying degrees associated with the MIDP proposal including, but not limited to, risks associated with project delivery, privacy, project governance, accessibility, funding/financing and partnership.

Waterfront Toronto will be seeking the public's input to inform the next phase of the risk assessment. We want to ensure the public's concerns are captured, mitigation measures are explored and, where appropriate, conditions under which the public would consider proceeding with the project are identified.

Examples of overarching risks being considered by Waterfront Toronto include:

- **Feasibility/viability of MIDP proposals in achieving the project objectives**: As with any innovative and complex project, we must pay close attention to the likelihood of certain innovations being successful and the roadblocks they may encounter, ensuring the appropriate backstops and mitigation measures are properly considered and included.
- **Private sector vs. public sector interests:** Waterfront Toronto was created by three orders of government to work in the public interest. Sidewalk Labs is a subsidiary of Alphabet Inc., which is a publicly traded company with a mandate to generate a profit for its shareholders. There is a risk that the different goals and obligations of the public and private sectors could create issues that make the project, or some aspects of it, untenable for Waterfront Toronto and/or Sidewalk Labs.
- **Data governance and privacy:** There is a risk that resident user data is leaked due to a data breach, as well as a risk of secondary, unethical uses of technologies developed/data collected at Quayside.

Examples of more specific risks, and questions for the public related to those risks, have been provided throughout this Note to Reader to provoke thought and discussion.

Chapter VII: Privacy and Digital Governance

7.1 What We Asked For

Waterfront Toronto's 2017 RFP stated that submissions should "reflect broader urban innovation, including technology-enabled, inclusive, connected communities." It also stated that the selected Innovation and Funding Partner would work closely with Waterfront Toronto to identify "the required governance constructs to stimulate the growth of an urban innovation cluster, including legal frameworks (e.g. Intellectual Property, privacy, data sharing),…". Thus, it has been clear since the outset of this project that digital governance – which includes but extends beyond privacy – must be addressed. For greater clarity, neither Sidewalk Labs or Waterfront Toronto have the authority or mandate to draft or enact public policy or regulations.

7.1.1 Existing Digital Governance Measures

Current legislation represents a foundational digital governance structure, for this or any other project at Quayside. All digital innovation must be compliant with all applicable legislation, including the *Canadian Charter of Rights and Freedoms*, the *Human Rights Code* (Ontario), the *Accessibility for Ontarians with Disabilities* Act (Ontario), the federal *Personal Information Protection and Electronic Documents Act* (PIPEDA), the federal *Privacy Act*, the provincial *Freedom of Information and Protection of Privacy Act* (FIPPA) and provincial *Municipal Freedom of Information and Protection of Privacy Act* (MFIPPA).

Building on this foundation, Schedule I of the Plan Development Agreement set out a series of Digital Governance Framework Principles, speaking to:

- Personal privacy, civil society protections and technological sovereignty;
- Data governance and stewardship that ensures both data/information sovereignty protection and innovation;
- Data sovereignty; storage and routing;
- Serving as an enabler/catalyst for open innovation;
- Responsive / agile policy framework to adapt to new realities;
- Ensuring a secure environment for all products and services; and,
- Responsible data use.

The purpose of those principles was to "ensure that digital innovations and solutions protect personal privacy and civil liberties while providing shared benefits, including as an economic catalyst for open innovation, and to inform the broader public policy dialogue on digital technology and data."

7.2 Sidewalk Labs Proposal

Sidewalk Labs proposed a new data governance model that it states would be applied to data collected and used in Quayside. As Sidewalk Labs states that it would only be one of many actors that may collect and use data to achieve the objectives for the project set forth by Waterfront Toronto, it is proposing a digital governance framework that would be incorporated into the development plan for the project and then applied to all parties who propose to collect and use data, before the collection and use of data can begin. Sidewalk Labs states that its framework starts with complying with existing privacy laws and a process which would remain under the oversight of Canada's privacy commissioners. Sidewalk Labs then states that its proposal builds on that foundation, and it proposes creating a "trusted process for responsible data use".

The responsible data use process proposes that any collection or use of *urban data* generated in this place must, in addition to being in compliance with existing privacy laws, adhere to responsible data use guidelines that are assessed using a responsible data use assessment (a

review process for any collection or use of urban data). It should be noted that there is no concept of urban data in Canadian privacy law. There, the relevant distinction is whether information relates, or could be related, to an identifiable individual (and is thus personal) or not. Data that is captured in urban spaces is protected by privacy law where it can be linked to an individual (e.g. security cameras) and it falls outside of privacy law when it does not (e.g. sensors that detect the presence of a pedestrian and nothing else, or air quality readings that do not relate to any individual).

The responsible data use process would be similar to a privacy impact assessment that is mandated by policy for many public sector entities, which requires a full privacy analysis as part of a given project's decision-making process. The Government of Ontario Freedom of Information and Protection of Privacy Manual, for example, specifically includes reference to Privacy Impact Assessments (PIA) as "a process that reviews a new or existing information system or program to determine whether measures are necessary to ensure compliance with personal information protection requirements in statute and regulation and to address the broader privacy implications of the system or program."

A key part of Sidewalk Lab's proposal is that all urban data that parties propose to collect and use in this place would be overseen by an Urban Data Trust, intended to be a "steward of urban data and the public interest without stifling innovation." Sidewalk proposes that all entities – including public and private sector actors – collecting or using urban data would be subject to this process and that the trust would have the authority to approve - or reject - any proposed collection or use of urban data. If a data collection or use activity is approved by the trust, summaries of the responsible data use assessments and locations of any data collection device would be published by the trust to increase transparency.

For more information on the proposed responsible data use and data use assessment, see Volume 2, Chapter 5, page 414 of the MIDP.

Next, Sidewalk Labs proposes to adopt, promote and/or develop "clear standards that make data publicly accessible, secure, and resilient" and the proposed trust would facilitate the availability of properly protected data by advocating a standard to make such data publicly available by default. This is intended to allow individuals, researchers, and organizations to more easily access properly protected open data from Quayside (including data collected in the public realm), to inform decision-making and to promote use of this data by third-parties in the creation of new or competing services. It is also intended to increase security and resiliency for critical infrastructure.

For more information on the proposed data standards see Volume 2, Chapter 5, page 403 of the MIDP.

7.3 Additional Considerations - Compliance and Privacy Risk Identification

Sidewalk Labs has initial proposals relating to data collection, data use and digital governance and it is proposing a framework that would apply to any proposals to collect and use data in the project area. It would be premature to make any evaluation of the proposed innovations as they are still under development and not yet at a stage that can be assessed for full compliance with Waterfront Toronto's principles and the governing legislative and regulatory frameworks. To date, what Sidewalk Labs has proposed is a process for how any data collection by such innovations could be evaluated and considered and potentially approved -- or rejected.

In addition to the proposals made by Sidewalk Labs, including those related to mitigation measures, Waterfront Toronto has undertaken a preparatory review (with Dentons LLP) to identify potential privacy risks and mitigations for every proposed innovation in the MIDP.

Waterfront Toronto recognizes that many of the ideas proposed in the MIDP rely on technologies that are still under development. At this stage, the focus of our evaluation will be the framework that is being proposed, though we will also evaluate all digital innovations and solutions based on the merits of the information provided thus far. Should the project move forward to an implementation phase, additional evaluation related to privacy and/or data governance will need to be conducted with additional detailed information – such as data flow diagrams, Privacy Impact Assessments, Threat Risk Assessments, and/or preliminary Responsible Data Use Assessments – being provided by Sidewalk Labs, or an appropriate third party.

7.4 Alignment with Existing Practices/Proposed New Practices

Sidewalk Labs has put forward a proposal for a data stewardship body called an Urban Data Trust.

Work is ongoing at all levels of government, among academia and in civil society to address digital governance concerns. Waterfront Toronto is monitoring these developments.

Sidewalk Labs has proposed that the Urban Data Trust would not replace existing privacy laws and would be implemented through the agreement between the parties and as part of the development plan through contracts with proposed collectors and users of urban data. Waterfront Toronto is interested in looking closely at this creation mechanism and how it would complement existing oversight mechanisms, or if created whether it would resemble the structure set out in the Sidewalk Labs proposal. Waterfront Toronto believes it is important to note that collection and use of personal information would still be regulated under existing privacy and human rights laws. As described above, there are multiple pieces of provincial and federal legislation that would apply in Quayside. Sidewalk Labs has clearly acknowledged this in the MIDP. Waterfront Toronto continues to examine governance frameworks that leverage existing laws, democratic accountability and established oversight mechanisms to enhance privacy protections and digital governance, which may include intergovernmental cooperation.

Questions to Consider – Privacy and Digital Governance

Waterfront Toronto eagerly anticipates the opportunity to discuss these questions and more with the public at our upcoming public meeting.

- Do you find the creation of the concept of "urban data" to be helpful by clarifying what data should be considered a public asset and/or subject to enhanced oversight by a data stewardship body? Or, do you think that currently recognized terms, such as personal and non-personal information, are more helpful to establishing the stewardship model related to these different types of data?
- Do you generally support the idea of data stewardship for data collected in Quayside? Do you feel it is necessary? If so, what are your views on the model proposed by Sidewalk Labs under the name Urban Data Trust? What would you keep and/or change? What central data stewardship structure would you support to oversee compliance of all applicable laws relating to data use in the Quayside? Do you believe governments should be bound by a data steward? Do you believe business should be bound by a data steward?

- How do you feel about the creation of Responsible Data Use Guidelines, which would be enforced by the Urban Data Trust, and the application of a Responsible Data Use Assessment tool? Do you have any suggestions?
- The following funding model for a data trust: each party that desires to collect and use urban data pay an urban data collection and use administration fee to cover the costs of the Urban Data Trust. Do you agree with the model Sidewalk Labs proposes or do you have concerns? Do you have any suggestions?
- How would you envision data collected in the public realm being used for the public good? Do you think the proposals related to open data would support that?
- After reading the Draft MIDP, what digital governance concerns (if any) do you consider to remain unanswered?
  - Are there specific areas of the privacy and digital governance proposals that you believe you need additional assistance in understanding prior to being able to determine whether or not you support these elements? If yes, please provide the topics that you feel you need this additional level of information for.

Chapter VIII: Government Obligations

The MIDP proposal sets out initiatives that require future commitments by the public sector in order to realize the project objectives. Waterfront Toronto has identified these initiatives and places them into two categories – Government Investment and Policy/Regulatory Reform.

8.1 Government Investment

Future government investment needed to achieve the outcomes proposed in the MIDP has been identified through an initial review of the proposal. Further assessment of the MIDP is required to better understand the details of the required government investment and how it may impact the final evaluation of the MIDP. Examples of these potential future investments include, but are not limited to:

- **Municipal infrastructure (including the LRT):** There is a significant investment in municipal infrastructure required to advance the plan proposed in the Draft MIDP.
- **Below market housing program:** Through National Housing Strategy Contributions and City Incentives, the public sector would need to support Sidewalk Labs' private sector funding proposal with an estimated $77 million in public funding to realize the affordable housing proposal. At the IDEA District scale, an additional $920 million could be required.
- **Not-for-profit/third-party management entities:** It is expected that certain management entities would require ongoing operating capital from government, namely, the Open Space Alliance and the Urban Data Trust.

For the full list of Management Entities see Volume 3, Supplementary Table, ST.1 of the MIDP.

8.2 Policy/Regulatory Reform

Sidewalk Labs proposes areas of needed government policy and regulatory reform in order to realize the project objectives. The MIDP proposes that these areas of reform fall into two categories:

- Regulatory/Targeted Adjustments and
- Initial Innovation Design Standards and Guidelines

8.2.1 Regulatory/Targeted Adjustments

Sidewalk Labs proposes elements of the MIDP would require targeted adjustments from existing legislation, regulation or policy. The MIDP proposal includes a total of 15 proposals that require targeted adjustments and the authorization implicated. The MIDP proposes that the targeted adjustments would require government action such as administrative agreements or legislation changes.

For the full list of Regulatory Adjustments see Volume 3, Supplementary Table, ST.2 -5 of the MIDP.

8.2.2 Initial Innovation Design Standards and Guidelines

Sidewalk Labs has proposed a series of enhanced requirements, the Innovation Design Standards and Guidelines, that would apply to new development in the proposed IDEA District (in line with the IDEA District governance) in order to meet the project objectives. The Innovation Design Standards and Guidelines require no change in law or regulation and would

apply to lands that are publicly owned or where landowners opt in. The MIDP proposes 20 of such requirements.

For the full list of Innovation Design Standards and Guidelines see Volume 3, Supplementary Table, ST.6 -10 of the MIDP.

Chapter IX: Public Consultation

Waterfront Toronto has planned two rounds of public consultation on the Draft MIDP:

Round One

The first round of public consultation is taking place within the first month after the Draft MIDP has been submitted by Sidewalk Labs. The purpose of this these early consultations is to share Waterfront Toronto's approach to considering the Draft MIDP. Using this Note to Reader as a guide, we will share and seek early feedback from the public on the many questions we must consider before making a decision about whether to move forward with all, some, or none of the Sidewalk Labs proposal.

There will be four identical public meetings, approximately 3 hours in length, that will combine full room and breakout discussions on each of the three volumes of the Draft MIDP. Given the volume of material in the proposal (1,500+ pages in total), members of the public may choose to attend more than one of the public meetings.

- Monday, July 15, 2019, 6 pm - 9:00 pm, North York Civic Centre
- Wednesday, July 17, 2019, 6 pm - 9:00 pm, Radisson Admiral Hotel
- Saturday, July 20, 2019, 9 am - noon, George Brown College Waterfront Campus
- Tuesday, July 23, 2019, 6 pm - 9:00 pm, Chestnut Residence and Conference Centre

Waterfront Toronto is also working with the Toronto Public Library to deliver a drop-in program called "Quayside Dialogue Box: Consulting on Next Generation Communities". The program will run from July 8 to 25, and will run for 90 minutes at the following branches and times:

- Monday, July 8: North York Central Library, 2:30 pm - 4:00 pm
- Tuesday, July 9: Scarborough Civic Centre, 4:30 pm - 6:00 pm
- Wednesday, July 10: Fort York, 6:30 pm - 8:00 pm
- Thursday, July 11: Brentwood, 2:30 pm - 4:00 pm
- Thursday, July 11: Queen/Saulter, 6:30 pm - 8:00 pm
- Thursday, July 18: St. Lawrence, 6:30 pm - 8:00 pm
- Thursday, July 25: Toronto Reference Library, 6:30 pm - 8:00 pm

The drop-in's are for members of the public interested in learning more about the Sidewalk Labs Draft MIDP as well as Waterfront Toronto's responsibility in determining whether it is in the public interest. The Waterfront Toronto team will be on hand to answer questions about the information in this Note to Reader, and to seek feedback from the public on the questions it poses. A copy of all three volumes of the Draft MIDP, as well as the fourth document from Sidewalk Labs that summarizes the three volumes, will be available for review.

For those unable to join us in-person, the www.QuaysideTO.ca website includes more information about the project and an online portal to submit written comments.

Feedback received up until July 31, 2019 will be summarized and shared publicly by the end of August, 2019.

Round Two

The second round of public consultation is currently planned for the Fall of this year (exact timing to be determined), once the Waterfront Toronto team and the public have had more time to work through and consider the Draft MIDP. Round Two will include a report on the public feedback during Round One and will take the public conversation further to focus on particular areas of the Draft MIDP where the Waterfront Toronto team would benefit from additional public feedback and advice.

We expect to have a combination of face-to-face and online opportunities to share your thoughts at that time.

If you have any questions about what is included here and/or the public consultation process, please visit our website for more information or contact us at quayside@waterfrontoronto.ca.

Appendix A. Waterfront Toronto Process Overview

Phase 1 – Market Research, Quayside RFP and Selection of Innovation and Funding Partner

During the year leading up to the creation of the RFP, Waterfront Toronto engaged in market research that was supported by our consultants, including KPMG (a global professional services firm) and Arup Canada. This research included market sounding meetings with over 50 companies and organizations where the vision and objectives of the Quayside project were discussed. To deepen our understanding of the market and further validate the findings and observations from the market soundings we hosted the "Going to Scale Summit" in November 2016.

The RFP was released on March 17, 2017 through local, national and international channels. Initial submissions were received on April 27, 2017 and evaluation was undertaken, closing the Pre-Qualification Phase. A shortlist of proponents was selected and notified on May 19, 2017. This began a Best and Final Offer (BAFO) Phase for shortlisted proponents, which closed on August 22, 2017.

On September 11, 2017, Waterfront Toronto, governed by a Steering Committee, including external experts, and guided by a fairness advisor, completed its robust evaluation and selected Sidewalk Labs as the preferred Proponent.

Phase 2 – Framework Agreement and Plan Development Agreement

The *Investment and Real Estate Committee* (IREC), a subcommittee of Waterfront Toronto's Board of Directors, oversaw negotiations of an initial agreement (the *Framework Agreement*) between Waterfront Toronto and Sidewalk Labs that allowed the project to proceed in principle. There were eight meetings of either the Board of Directors or IREC between the time a winning proponent was chosen and the vote to approve the Framework Agreement on October 16, 2017. The Framework Agreement, much like a memorandum of understanding, allowed Waterfront Toronto and Sidewalk Labs to continue negotiating a more detailed Plan Development Agreement (PDA) that would codify and define the roles and responsibilities of each party.

The PDA, signed on July 31, 2018, entirely superseded the Framework Agreement. The PDA defines and governs the relationship between Waterfront Toronto and Sidewalk Labs during the planning and consultation process for the Master Innovation and Development Plan (MIDP). The PDA includes a budget and joint oversight measures for spending the up to USD$50 million committed by Sidewalk Labs for the planning process; outlines shared objectives and principles; and makes clear that there is no transfer of ownership or sale of land as a result of the agreement. The PDA states that the MIDP will focus on a comprehensive plan for Quayside while acknowledging that proposals may be brought forward at a scale beyond Quayside, subject to required procurement processes and government approvals.

Phase 3 – Sidewalk Labs Research and Planning for MIDP; Waterfront Toronto Evaluation Framework Preparation

Sidewalk Labs Research and Planning for MIDP: The PDA outlined the parameters under which Sidewalk Labs would develop a proposal for Waterfront Toronto's consideration. While Waterfront Toronto and Sidewalk Labs did work together earlier in the process to do research, generate ideas, and consult the public, the roles of the two organizations then separated, allowing Waterfront Toronto to focus on creating a robust framework for review and evaluation of the MIDP. Sidewalk Labs' responsibility is to prepare and submit the MIDP.

Establishing Waterfront Toronto's Evaluation Framework: This is a complex project that requires a thoughtful and rigorous evaluation by Waterfront Toronto. Waterfront Toronto, together with KPMG, developed a comprehensive Evaluation Structure. A critical element of our evaluation process will be seeking feedback from the public, which will help guide our assessment of the proposal. Ensuring that the public has a say in what is proposed for waterfront neighbourhoods has always been foundational to Waterfront Toronto's work. Following a series of public consultations, a team of Waterfront Toronto staff and third-party subject matter experts will come together to evaluate the MIDP.

Together with the public, Waterfront Toronto will determine if the MIDP can be successful in meeting the priorities set out in the RFP as well as the goals and objectives Waterfront Toronto established for the MIDP: creating jobs, building climate positive communities, providing affordable housing and delivering new innovations to the water's edge, to name but a few.

An Executive Committee comprising senior leadership from Waterfront Toronto as well as KPMG and N. Barry Lyon Consultants, among others, will review the MIDP, the input from the evaluation team, and input from the public, in order to issue a recommendation to the Investment Real Estate and Quayside (IREQ) Committee (formerly IREC). The IREQ Committee will consider the recommendation before advancing it to the Board of Directors for a final decision.

Preparing for MIDP Evaluation: In preparing to receive the MIDP, Waterfront Toronto undertook a number of exercises to enable us to better synthesize and frame the proposal from Sidewalk Labs for public consultation, and to take a methodical and progressive approach to assessing the proposal, ensuring a diligent and thoughtful evaluation. The preparation included, but was not limited to, the following exercises:

1. A risk assessment exercise led by KPMG.
2. A Privacy assessment exercise with Dentons Canada LLP.
3. An Innovation, Product and IP identification exercise with McCarthy Tetrault LLP, nNovation LLP and KPMG.
4. A financial exercise to identify initiatives with a potential trade-off against land value, led by KPMG.

These analyses will undergo several more iterations and will ultimately help inform the final evaluation and subsequent recommendation to our Board of Directors. The next step is to obtain the public's feedback to help inform the evaluation. To provoke thought and discussion, sample outcomes from this work have been shared throughout this Note to Reader. The full set of outcomes will be further considered and refined throughout the evaluation, including with third-party experts, and will be provided to the public with the final MIDP evaluation.

Phase 4 – MIDP Release and Public Consultation

The release of the MIDP marks the beginning of another phase, during which Waterfront Toronto will consult with the public on the MIDP proposal. With this Note to Reader we have synthesized the proposal and endeavoured to focus attention on the areas that we have identified as being of greatest interest and importance to the public.

The purpose of our consultation is to understand the public's views and identify key issues to inform our evaluation of the MIDP. We have specially crafted our evaluation framework to allow a certain level of flexibility to emphasize areas of greater importance to the public.

Waterfront Toronto will prepare a public feedback summary report that will be shared with the three orders of Government, Waterfront Toronto's Board of Directors and Sidewalk Labs. Sidewalk Labs can either amend or not amend the MIDP based on this feedback at their own

discretion and risk. However, to reiterate, Waterfront Toronto will strongly factor this public feedback into our evaluation.

Phase 5 – MIDP Evaluation for Board Decision

Upon completion of public consultation, Waterfront Toronto will undertake the evaluation and make a recommendation to IREQ, which will make a recommendation to the Board of Directors. The Board of Directors will decide whether, and how, to proceed to the next phase.

Decision by Waterfront Toronto's Board of Directors (Board Decision): It is important to make clear what a Board Decision on the MIDP means. The Board of Directors will decide whether to pursue some, all or none of the elements of the MIDP. With any approval, there will be conditions that must be met through future agreements and approval processes. An approval of the MIDP would simply begin a comprehensive process of further diligence with our Government partners and the public.

Phase 6 – Future Process and Approvals

Should our Board of Directors decide to pursue any element of MIDP and continue a relationship with Sidewalk Labs, an extensive process would then commence, including:

1. **Principle Implementation Agreements:** The negotiation of Principle Implementation Agreements (PIA's) between Waterfront Toronto and Sidewalk Labs would begin. These agreements would address any conditions of approval and detail the roles and obligations for the next steps of implementing the project.
2. **Business and Implementation Plans (BIPs):** As outlined in the *2006 Memorandum of Understanding* between Waterfront Toronto, the City of Toronto and *TEDCO* (now CreateTO), which designates Waterfront Toronto as revitalization lead for the East Bayfront and the Port Lands, Waterfront Toronto must submit Business and Implementation Plans (BIPs) for Council approval in order to direct the disposition of City-owned lands. A BIP must address anticipated costs, revenues, and implementation roles and responsibilities. It must provide comprehensive financial forecasts and detailed project implementation phasing, and it must be drafted with staff from the relevant City Divisions and agencies. Any proposals from Sidewalk Labs that Waterfront Toronto's Board chooses to pursue would be included in one or more BIPs for the consideration and approval of City Council.
3. **City and Government approval process:** Any development proposal in the waterfront (including proposals from Sidewalk Labs that Waterfront Toronto's Board chooses to pursue) is subject to a legislative planning framework – any development must conform to the *City of Toronto's Official Plan*, and is subject to zoning by-laws, which establish permitted uses and direct the form of a development, including height, density and location.
4. **Public Consultation:** Throughout the government approval process, meaningful public consultation would continue by both Waterfront Toronto and Sidewalk Labs.

Appendix B. MIDP Compliance with RFP/PDA

Waterfront Toronto's 2017 Quayside RFP sought an Innovation and Funding Partner for the Quayside Development Opportunity. The intent was to find a partner to help create an innovative approach to city building that met our stated targets, and to establish roles for the involved parties. The RFP was clear in its focus on Quayside, yet also contemplated the potential for bringing forward some concepts and solutions for consideration in other areas of the waterfront. The RFP was clear that any future development (infrastructure and real estate) would be the subject of future RFPs, but that the selected Innovation and Funding Partner could play some role in real estate development down the road.

The concepts and principles of the RFP were carried forward into the Plan Development Agreement (PDA), which sets out the roadmap for creating the Master Innovation and Development Plan (MIDP). Among other things, the PDA provides that the MIDP will incorporate principles and processes for procurement (the "Procurement Principles" as set out in Schedule D of the PDA) that are based on competitive procurement practices with limited exceptions for "purposeful solutions".

Below are the four roles that Sidewalk Labs has proposed to fulfill, and our view of the procurement issues related to each:

Role 1: Development of Real Estate and Advanced Systems

Sidewalk Labs proposes to lead the real estate development of Quayside and Villiers West and commits to working with local partners. Sidewalk Labs also proposes to be the lead developer of advanced infrastructure systems (e.g., non-standard municipal services such as thermal grid and advanced streets).

Procurement considerations:

- Regarding its Quayside property, Waterfront Toronto has clearly communicated to Sidewalk Labs that Waterfront Toronto will lead the competitive procurement process for vertical building developers that could partner with Sidewalk Labs in the development of this property.
- Regarding Villiers West, Sidewalk Labs' proposal to act as vertical building developer of this property is not within the scope of the roles contemplated for Sidewalk Labs in the RFP and the PDA.
- Regarding advanced infrastructure systems, Sidewalk Labs may be able to act as the lead developer of these systems, however, the procurement of such systems must be competitively procured unless it is determined that a system is a "purposeful solution".
- Any development of land owned by third-parties, particularly where owned by governments, will be subject to their respective approval and procurement processes.
- Unless another public agency is leading the procurement process, Waterfront Toronto should lead the procurement where public assets and the public interest is involved, to ensure procurement is fair and open, and to protect the public interest and adhere to public policy.

Role 2: Innovation Planning, Design and Implementation

Sidewalk Labs proposes to provide advisory and management services for a cost of approximately $3 million a year in connection with the following:

- Planning services for infrastructure and advanced systems
- Precinct planning advice
- Technical specifications for the innovation framework

Also, Sidewalk Labs is proposing to be paid a fee for the following:

- Design municipal infrastructure in Quayside and Villiers West
- Integration of advanced systems with municipal infrastructure
- Design and manage advanced infrastructure
- Support for management entities
- Advisory Service related to vertical development

Procurement considerations:

- Sidewalk Labs providing advisory and management services is within the intent of the original RFP and PDA.

Role 3: Technology Deployment

Sidewalk Labs proposes to source or create key technological solutions needed to deliver on the MIDP targets

Procurement considerations:

- This proposal is in line with the intent of the RFP and PDA.

Role 4: Optional Infrastructure Financing

Sidewalk Labs has offered to arrange or enable front-end financing for the accelerated construction and support of certain critical infrastructure (i.e. light-rail transit) and advanced systems.

Procurement considerations:

- This option is in line with the intent of the RFP and PDA, as we procured an innovation *and funding* partner.
- However, if the financing is provided to another public body (and not to Waterfront Toronto), the availability of such financing to that public body may be subject to the restrictions, policies and protocols of that body.

Appendix C. Sample Approach to Assessing Innovation

To further outline Waterfront Toronto's approach to assessing initiatives in the proposal from Sidewalk Labs, we have highlighted different dimensions of one initiative below — the proposed dynamic streets and curbs. We have noted key considerations across several topic areas, including impacts on governance, intellectual property and key outcomes, and future approvals required from governments, as well as our anticipated next steps for the evaluation with our team of subject matter experts.

This case study is for illustrative purposes only and reflects a brief preliminary interpretation of the proposed initiatives. Following the upcoming phase of public consultation, Waterfront Toronto will be conducting a full and robust evaluation, as described in Appendix A of this Note to Reader.

Dynamic Streets and Curbs

Sidewalk Labs proposes a system that could enable the streets at Quayside to be flexible, adapt in real-time to changes in demand and evolve over time with trends in transportation and technology. The dynamic streets proposal can be categorized into two components:

- **Software:** These are digital systems to enable the communication of the dynamic curbside pricing and policy (set by the proposed Waterfront Transportation Management Association) to connected devices, digital signage and connected vehicles. This software would also be capable of monitoring curbside use, enforcing policy, and administering charges for use.
- **Hardware:** This is the physical infrastructure component of the proposal. It consists of modular pavers containing LEDs, which can light up to communicate street uses, and the tactile strip that identify the edge between the pedestrian realm and roadway, as well as sensors required to capture real-time data. There is no physical curb proposed to delineate between the pedestrian realm and the roadway.

Potential Value Proposition

The proposal for dynamic streets and curbs offers solutions to several existing and projected future urban challenges. It is Sidewalk Labs' proposed solution to mitigate conflicts between different curbside uses, to manage demand for the curb through dynamic pricing and policy, and to optimize the utilization of streets as demand fluctuates, as well as changing trends and technology over time. Sidewalk Labs indicates that the proposed system would be more capable of adapting than a typical roadway.

Waterfront Toronto will be assessing the MIDP proposal for dynamic streets and curbs for alignment with our desired mobility outcomes and objectives, with support from mobility experts at Arup.

Governance Considerations

To implement the proposed dynamic streets and curbs, Sidewalk Labs calls for the establishment of a new public entity, the WTMA, a unit within the proposed IDEA District Public Administrator. This new entity would apply data analytics to update curb pricing and policy in real-time in a way that optimizes transportation system performance. It would assume control over curbside policy from the City of Toronto, and control over pricing the use of the curb from the Toronto Parking Authority.

Waterfront Toronto will be working closely with governments in examining the proposed governance models, including the proposed WTMA.

Financial Impacts

Sidewalk Labs proposes that the operation of dynamic streets and curbs within the IDEA District would be financially self-sustaining through revenues collected by the WTMA, including fees for parking, curbside pick-up and drop-off, and charges for mobility services.

With KPMG, Waterfront Toronto will be examining the financial implications of the proposal for dynamic streets and curbs, including any impacts on land value, user rates, and/or operating costs.

Privacy Implications

Further information about data flows within the MIDP proposal for dynamic streets and curbs will be needed to assess compliance with privacy legislation and digital governance principles. For example, the use of weight-based sensors to determine curb availability would have a significantly different privacy impact than camera-based sensors. Close attention will be paid to any collection or use of identifiable information, such as scanning license plates for parking enforcement.

With legal counsel and privacy experts from Dentons Canada LLP, Waterfront Toronto will be examining privacy implications and highlighting risks associated with dynamic streets and curbs in our evaluation.

Risks

There are several potential risks associated with the proposal for dynamic streets and curbs from Sidewalk Labs. Since the curb would be virtual and flexible, rather than physical and static, there is some risk that the accessibility of the street would be compromised. Further, the absence of a physical curb could introduce additional risks that will need to be examined and evaluated in detail. There could also be risks associated with the future costs and operations of the proposed layout and systems, including maintenance and adaptability.

With support from KPMG, Waterfront Toronto will assess the likelihood and severity of risks associated with the proposed dynamic streets and curbs, as well as investigating potential mitigation strategies.

IP/Revenue Sharing

The proposed system of dynamic streets and curbs would include the development and/or application of new technologies within the Quayside project. If these new products or services are treated as "Testbed-Enabled Technology", then revenue sharing opportunities could arise. Separately, Dynamic Curb is identified as a "Purposeful Solution", meaning Sidewalk Labs has deemed it to be critical to achieving aspects of the MIDP and for which there are no suitable alternative solutions on the market.

Waterfront Toronto will examine the extent (if any) of testbed-enabled IP associated with dynamic streets and curbs, with experts from McCarthy Tétrault and nNovation, as well as its categorization as a "Purposeful Solution".

Summary

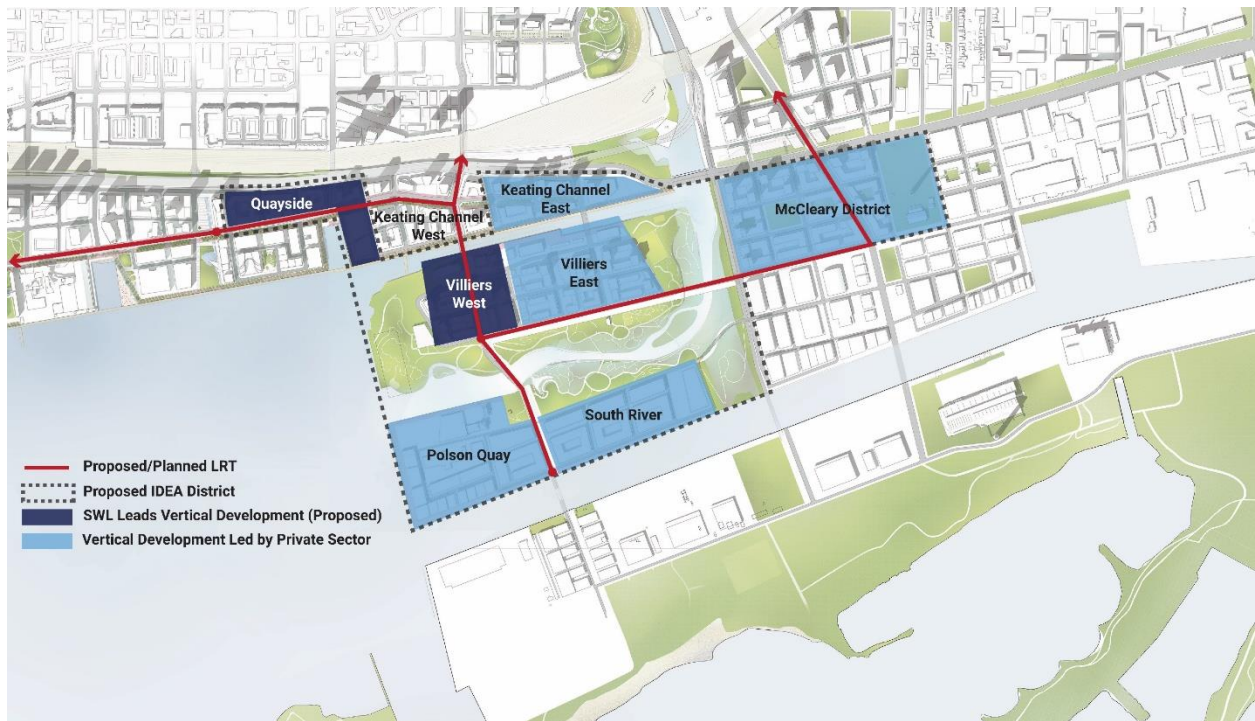In order to address the complexity and interdependencies associated with the MIDP proposal, including this proposal for dynamic streets and curbs, Waterfront Toronto will be undertaking an evaluation that addresses all dimensions and risks associated with each initiative. We will also be relying on input from members of the public and our subject matter experts to inform this robust evaluation.

Appendix D. Map

Legend:
- Proposed/Planned LRT
- Proposed IDEA District
- SWL Leads Vertical Development (Proposed)
- Vertical Development Led by Private Sector

Map labels: Quayside, Keating Channel West, Keating Channel East, McCleary District, Villiers West, Villiers East, South River, Polson Quay

Glossary of Terms

Terms	Definition
2006 Memorandum of Understanding (MOU)	The Memorandum of Understanding (MOU) is an agreement between Waterfront Toronto, the City of Toronto and Toronto Economic Development Corporation (TEDCO) (now CreateTO) that provides the framework for Waterfront Toronto to revitalize Toronto's waterfront and outlines how the three parties are to work together to achieve the revitalization.
A Made-in-Ontario Environment Plan	The Ontario Government's approach to climate change, waste reduction as well as land, air and water conservation.
Adaptive traffic signals	A traffic light system proposed by Sidewalk Labs that would enable traffic signals to detect when pedestrians need more time at a crossing, then adapt accordingly.
Advanced Infrastructure System	The private infrastructure systems proposed by Sidewalk Labs in order to achieve ambitious sustainability and mobility objectives. Management entities and third-party operators needed to manage and operate advanced infrastructure systems would be administered by the Public Administrator. The proposed examples of advanced infrastructure are as follows: • Advanced power grid; • Stormwater management upstream of municipal sewers; • Fiber-optic network; • District parking management; • Dynamic streets; • Freight system; • Vacuum waste system; • Thermal network.
Affordability by Design	A value creation system proposed by Sidewalk Labs in which "efficient units" enable developers to create more total units across a given project, improving economics to support below-market housing.
Automated Energy Schedulers	An energy management system proposed by Sidewalk Labs that would automate energy use to optimize residential, commercial and building heating, cooling and electricity systems in order to reduce energy waste while increasing tenant comfort.
Beanfield Metroconnect	A Toronto-based telecommunications provider. Waterfront Toronto has partnered with Beanfield to provide faster internet connections and neighbourhood-wide WiFi throughout the waterfront.
Below Market Units	Rental units within the Below Market Housing Program are units in which the total monthly shelter costs do not exceed 1.5 times

the average City of Toronto rent, by unit type, as reported annually by Canada Mortgage and Housing Corporation.

C40 Cities	C40 is a network of the world's megacities committed to addressing climate change. C40 supports cities to collaborate effectively, share knowledge and drive meaningful, measurable and sustainable action on climate change.
City of Toronto Official Plan	The Official Plan is a planning document intended to ensure that the City evolves, improves and realizes its full potential in areas such as transit, land use development, and the environment.
Climate Positive	Emissions target of net-negative operational greenhouse gas (GHG) emissions associated with energy, waste and transportation. This "climate positive" outcome is achieved by reducing emissions on-site and offsetting emissions by reducing carbon in the neighbouring community.
Climate Positive Framework	A document from the former C40 Climate Positive Development Program which outlines a set of reporting requirements and phases, beginning with planning and culminating with the project being complete and certifying that they are net-carbon negative.
Collab	A civic engagement tool proposed by SWL to engage community members in local decisions that could shape their neighbourhood. Collab would operate through a transparent process that reveals the decision-making framework and all community inputs.
Community Improvement Plan (CIP)	A Community Improvement Plan is a planning tool provided in Section 28 of the Planning Act that allows the City to improve an area of the city, called a community improvement project area, by providing for, or encouraging the development or redevelopment of such things as buildings, infrastructure, facilities and spaces.
Digital Infrastructure	A broad term referring to infrastructure that supports digital technology, such as internet connectivity.
East Bayfront Precinct Plan	A City Council approved planning document produced by Waterfront Toronto and the City of Toronto that outlines how revitalization of the waterfront is to proceed in the area roughly bounded by Jarvis and Parliament Streets, the Gardiner Expressway to the north and Lake Ontario to the south.
East Bayfront Transit Environmental Assessment	East Bayfront Transit Environmental Assessment was a formal process completed by Waterfront Toronto and the City of Toronto in 2010 to study the extension of the Queens Quay East LRT from Union Station to Parliament Street.
Framework Agreement	The initial agreement between Waterfront Toronto and Sidewalk Labs that allowed the project to proceed in principal. The Framework Agreement was approved by the Board on October

16, 2017, with the understanding it was a preliminary and temporary document built on high level objectives. The Framework Agreement contemplated the creation of the Plan Development Agreement, which was subsequently approved by the Board of Directors, replacing the Framework Agreement.

Freedom of Information and Protection of Privacy Act (FIPPA)	A provincial law that governs access to information held by provincial public-sector organizations in Ontario, as well as collection and use of personal information by those organizations.
Green Streets Technical Guidelines	The City of Toronto's Green Streets Technical Guidelines provide guidance, standards and selection tools for the planning, design, integration and maintenance of a range of green infrastructure options appropriate for the City's street types and conditions. Green Streets is a new approach to increase the functionality of streets to help manage stormwater (rain and melted snow), improve air quality, increase bio-diversity and enhance and beautify our public realm.
Greenhouse gas	Any gas that has the property of absorbing infrared radiation (net heat energy) emitted from Earth's surface and reradiating it back to Earth's surface, thus contributing to the greenhouse effect, such as carbon dioxide and methane.
IDEA District	The Innovative Design and Economic Acceleration (IDEA) District is a 77-hectare area, consisting of Quayside and the River District. Sidewalk Labs proposes that the IDEA District would provide sufficient geographic scale to maximize the impact of innovations and allow for them to be financially viable.
Innovation Design Standards and Guidelines (IDSG)	A set of evolving requirements proposed by SWL that would guide development with the goal of meeting the objectives of the project.
Innovation Framework	A modified regulatory framework proposed by Sidewalk Labs that would apply incrementally across the IDEA District. This framework would consist of: (a) Certain adjustments to legal requirements necessary to implement the MIDP, and; (b) Innovation Design Standards and Guidelines (IDSG's), a new set of requirements that would guide development with the goal of meeting Waterfront Toronto's and the project's objectives.
Investment and Real Estate Committee (IREC)	A subcommittee of Waterfront Toronto's Board of Directors. The committee name was changed in 2017 to Investment, Real Estate and Quayside Committee.
Investment, Real Estate and Quayside Committee (IREQ)	A subcommittee of Waterfront Toronto's Board of Directors responsible for assisting the Board in fulfilling its oversight responsibilities with respect to development projects, real estate acquisitions and divestitures, and the Quayside project. The

committee was previously called Investment and Real Estate Committee.

[Keating Channel Precinct Plan](#)	A City Council approved planning document produced by Waterfront Toronto and the City of Toronto that outlines how revitalization of the waterfront is to proceed in the area roughly bounded by Villiers Street to the South, the Gardiner to the North, Parliament Street to the west and the Don River to the east.
Koala Standardized Mount	A standardized mount proposed and designed by Sidewalk Labs which provides power and network connectivity to sensors and other devices. Koala mounts are intended to simplify and speed up the process of installing devices on light poles and other street fixtures.
Land Value Capture (LVC)	Land Value Capture is based on the understanding that municipal infrastructure investment, such as transit, will have direct impacts on the land value of the private lands that it serves. LVC is a revenue tool that can be used to capture some of this increase in land value to contribute to the funding of the infrastructure. LVC can be administered through the sale of publicly owned lands in the area or through contributions from benefited developers, either through a one-time upfront payment, or over time.
Light Rail Transit (LRT)	Light Rail Transit (LRT) refers to a transportation system that uses rail vehicles, such as a TTC streetcar, that operate in exclusive road lanes, and is different from heavier rail transportation, such as a passenger train or GO Train.
Local Infrastructure Contribution (LIC)	Local infrastructure contributions are a form of fee proposed by Sidewalk Labs. Vertical developers would provide LIC payments if an advanced system replaces a traditional horizontal or vertical system that is typically funded by the vertical developer in an amount equivalent to the avoided costs (such as not installing a natural gas network).
Master Innovation & Development Plan (MIDP)	The MIDP is Sidewalk Labs' proposed approach to the revitalization of Quayside. The MIDP is a vision document, concept plan, and business case—it is not a formal planning application.
[Metrolinx 2041 Regional Transportation Plan](#)	A 25-year plan produced by Metrolinx which guides transportation planning and investment throughout the Greater Toronto and Hamilton Area (GTHA).
[Minimum Green Building Requirements](#)	Green building standards enforced by Waterfront Toronto since 2006, through development agreements with Waterfront Toronto's development partners.
Modus	A mobility management system proposed by SWL. To reduce congestion and encourage shared trips, the proposed system

would coordinate all travel modes, traffic signals, and street infrastructure, and manage demand by suggesting dynamic pricing rates for parking and curb use.

Municipal Freedom of Information & Protection of Privacy Act (MFIPPA)	A provincial law that governs access to information held by municipal public-sector organizations in Ontario, as well as collection and use of personal information by those organizations.
Municipal Infrastructure Contributions (MIC)	Municipal Infrastructure Contributions are a form of fee proposed by Sidewalk Labs. Vertical developers would provide MIC payments to the Public Administrator up to the amount of credit for City fees and development charges that the Public Administrator receives in exchange for delivering municipal infrastructure and services.
Open Space Alliance	A non-profit entity proposed by Sidewalk Labs to coordinate programming, operations and maintenance of public spaces for Quayside and other areas of the IDEA District.
The Paris Agreement	The United Nations Framework Convention on Climate Change members committed to maintaining global temperature rise to well below 2 degrees this century. Signed by Canada at COP 21 in 2015.
Passive House	Passive House is a voluntary energy performance standard for the design and construction industry. Passive House buildings consume up to 90 percent less heating and cooling energy than conventional buildings.
Patent Pledge	To ensure that innovations deployed and tested in the project area remain available to be deployed elsewhere in Canada, Sidewalk Labs proposes to pledge not to assert any patents they file in Canada. This pledge would apply to the software or hardware that enable digital innovations related to Sidewalk Toronto, so long as companies using those patents do not assert their own patent rights against Sidewalk Labs or its affiliated companies. Sidewalk states that it will publish the full content of the pledge on its website, along with a list of patents included in the pledge as they are developed.
Personal Information Protection & Electronic Documents Act (PIPEDA)	A federal law that governs the collection, use and disclosure of personal information by private-sector organizations, in the course of commercial activity.
Plan Development Agreement (PDA)	The PDA was signed on July 31, 2018. It defines and governs the relationship between Waterfront Toronto and Sidewalk Labs during the planning and consultation process for the MIDP. The PDA includes a budget and joint oversight measures for spending the up to USD$50M committed by Sidewalk Labs; outlines shared objectives and principles; and makes clear that there is no transfer of ownership or sale of land as a result of the agreement.

The PDA specifies that Waterfront Toronto is the revitalization lead and that Sidewalk Labs will provide urban innovation and digital technology expertise. It also makes clear that the MIDP will focus on a comprehensive plan for Quayside while acknowledging that proposals may be brought forward at a scale beyond Quayside. The PDA supersedes the Framework Agreement.

Port Lands Planning Framework	A City Council approved, high-level planning document produced by the City of Toronto and Waterfront Toronto that establishes the planning direction for development in the Port Lands over the next 50+ years.
Priority Outcomes	Waterfront Toronto's priority outcomes are based on the objectives of the RFP, existing Corporate Objectives, and government public policy goals. These outcomes, as described in the Quayside Evaluation Framework, include i) economic development through establishment of an innovation cluster on Toronto's waterfront, enabling Canadian firms to achieve scale, ii) a model for climate positive urban development with less than zero annual greenhouse gas emissions, iii) housing affordability, exceeding our current minimum of allocating 20% of land for affordable housing, with minimal reliance on public funds, iv) leverage the benefits of technology to reduce the cost and climate impacts of transportation, and v) urban innovation, solutions and technologies that address key issues facing modern cities.
Privacy Impact Assessment	A process by which the privacy risks of a project, program, technology system or process are identified and (where possible) resolved. Many jurisdictions, including the City of Toronto, have well-defined policies around when and how to conduct privacy impact assessments.
Privately-Owned Publicly Accessible Spaces (POPS)	POPS are a specific type of open space that the public is welcome to enjoy, but that remains privately owned. POPS are typically secured by the City of Toronto as part of the development approvals process (rather than being a municipally owned open space or park).
Project Objectives	The objectives of the RFP, further refined through the PDA and Waterfront Toronto's MIDP Evaluation Framework, including Waterfront Toronto's Goals and Objectives.
Public Administrator	An oversight body proposed by Sidewalk Labs to administer the proposed innovation, real estate and technology guidelines for Quayside and the IDEA District. The management entities and third-party operators of advanced infrastructure systems would fall under the control of the Public Administrator. This body would be accountable to Government. The complete list of management entities overseen by the Public Administrator are the Open Space

	Alliance, the Urban Data Trust, the Waterfront Transportation Management Association, the Waterfront Sustainability Association and the Waterfront Housing Trust.
Purposeful Solutions	Arising from Waterfront Toronto's Request for Proposals, Sidewalk Labs uses this term to mean "a limited set of innovations that are necessary to achieve agreed-upon project goals and for which there is no suitable alternative on the market." Sidewalk Labs proposes to develop these solutions and provide them at-cost to the Public Administrator.
Real-time building codes	An "outcome-based" building code system proposed by Sidewalk Labs. The proposed system could monitor real time compliance with established standards for noise, air pollution and other nuisances to allow for a broader mix of uses to coexist without sacrificing public safety or comfort.
Renewable energy	Renewable energy is energy derived from natural processes that are replenished at a rate that is equal to or faster than the rate at which they are consumed.
Responsible Data Use Assessment	A process proposed by Sidewalk Labs that would involve "an in-depth review outlining the purpose of [a] digital proposal, the type of urban data it aims to collect, its potential impact on the community, and its risks and benefits." Sidewalk Labs proposes that these assessments would be submitted to an Urban Data Trust for review.
Ride hailing	Ride hailing is a term used frequently throughout the MIDP to describe passenger transport for hire services such as taxis, or Transport Network Companies (TNCs) such as Uber or Lyft.
River District	River District is how Sidewalk Labs identifies the land in the Port Lands comprised of Villiers Island, Keating Channel Precinct East, McCleary District, Polson Quay and South River (which is included in the MIDP as part of Polson Quay).
Seed Space	A digital leasing and operations platform proposed by SWL that would help small businesses and other retailers book a range of ground-floor space sizes, from anchor-tenant spaces to micro stalls, for either short-term or long-term uses.
Shared Equity Housing	A program proposed by Sidewalk Labs in partnership with the non-profit housing sector intended to lower the barrier of entry to middle income households by reducing down-payment requirements through a hybrid rental and ownership model.
Sidewalk Infrastructure Partners	A new infrastructure fund supported by Sidewalk Labs and their parent company, Alphabet. Sidewalk Infrastructure Partners would provide optional financing to third-party private advanced infrastructure operators.

Social Infrastructure	Social Infrastructure refers to the various institutions and programs that support people's wellbeing, such as community centres, schools or employment programs.
Stoa	A design concept proposed by Sidewalk Labs, to be applied to the lower two floors of Quayside buildings to animate ground floor uses with diverse retail, commercial, institutional and production uses. The open-concept design allows spaces to shift seamlessly between uses.
Super-PON	"Super Passive Optical Network" - a technology that increases the bandwidth of fiber-optic cables, allowing for each cable to support more users.
Tax Increment Financing (TIF)	Tax Increment Financing is based on the understanding that municipal infrastructure investment, such as transit, will have direct impacts on the land values in the area that it serves and therefore generates an incremental increase in property taxes. TIF can be implemented to ensure that the incremental increase in property taxes that are attributed to the investment is allocated specifically to fund that investment. TIF differs from Land Value Capture (LVC) as it is not a new source of revenue for governments.
TEDCO	The City of Toronto Economic Development Corporation (TEDCO) – replaced by BuildTO in 2008 and later amalgamated into CreateTO in 2017. It manages the City of Toronto's real estate portfolio.
TOCore Building for Liveability	The City's "Building for Liveability" study recommends a framework for delivering on liveability outcomes – comfort, vibrancy, diversity, safety and beauty – within Downtown Toronto.
TransformTO	TransformTO is Toronto's new and ambitious climate action strategy. Unanimously approved by City Council in July 2017, TransformTO lays out a set of long-term, low-carbon goals and strategies to reduce local greenhouse gas emissions, and improve our health, grow our economy, and improve social equity.
Urban Data	Urban Data is a term coined by Sidewalk Labs and it means any data collected in physical spaces in the public realm, whether or not it relates to an individual). This means that Urban Data could include both personal information and non-personal information and Sidewalk Labs mentions that this means that more data is subject to review and approval in this place since current privacy laws govern the collection, use and disclosure of personal information, which is information that is about an "identifiable individual".
Urban Data Trust	A Sidewalk Labs proposal for an independent organization tasked with oversight of the collection and use of "urban data".

Urban Innovation Institute	A non-profit applied research institute proposed by Sidewalk Labs dedicated to spurring urban innovation.
Urban Innovation Venture Fund	A venture fund proposed by Sidewalk Labs, which would aim to raise capital for local, early-stage enterprises.
Villiers Island	Villiers Island is the island that will be formed as a result of the ongoing Port Lands Flood Protection work being undertaken by Waterfront Toronto with government funding. In 2017, City Council adopted the Villiers Island Precinct Plan, which provided direction for the kind of development to take place on the future island.
Villiers Island Precinct Plan	Adopted by Toronto's City Council in 2017, the Villiers Island Precinct Plan provides a vision and planning framework to guide the comprehensive development of Villiers Island in the Port Lands.
Villiers West	Villiers West is a term that Sidewalk Labs has used to identify the westernmost part of Villiers Island – generally the land from Promontory Park to Old Cherry Street.
Water's Edge Promenade	The Water's Edge Promenade is an enhanced and beautified public promenade that extends throughout the Central Waterfront and is being built as part of Waterfront Toronto's ongoing work along the waterfront.
Waterfront Housing Trust	A public entity proposed by Sidewalk Labs to procure funding for and administer the delivery of Below-market Units.
Waterfront Sustainability Association	A management entity proposed by Sidewalk Labs, the Waterfront Sustainability Association would be part of the Public Administrator and manage advanced infrastructure operators that are related to sustainability, such as advanced power grid and thermal grid.
Waterfront Transportation Management Association (WTMA)	The Waterfront Transportation Management Association is public non-profit entity proposed by Sidewalk Labs tasked with the integrated management of the mobility system elements throughout the project's geography. The WTMA would be responsible for implementing policy objectives, overseeing planning, operations and maintenance, and using the mobility management system to manage demand and coordinate systems in line with its objectives.

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Questions / Comments

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