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EXPLAINER

Sidewalk Labs' proposed plan for Toronto's waterfront: Everything you need to know

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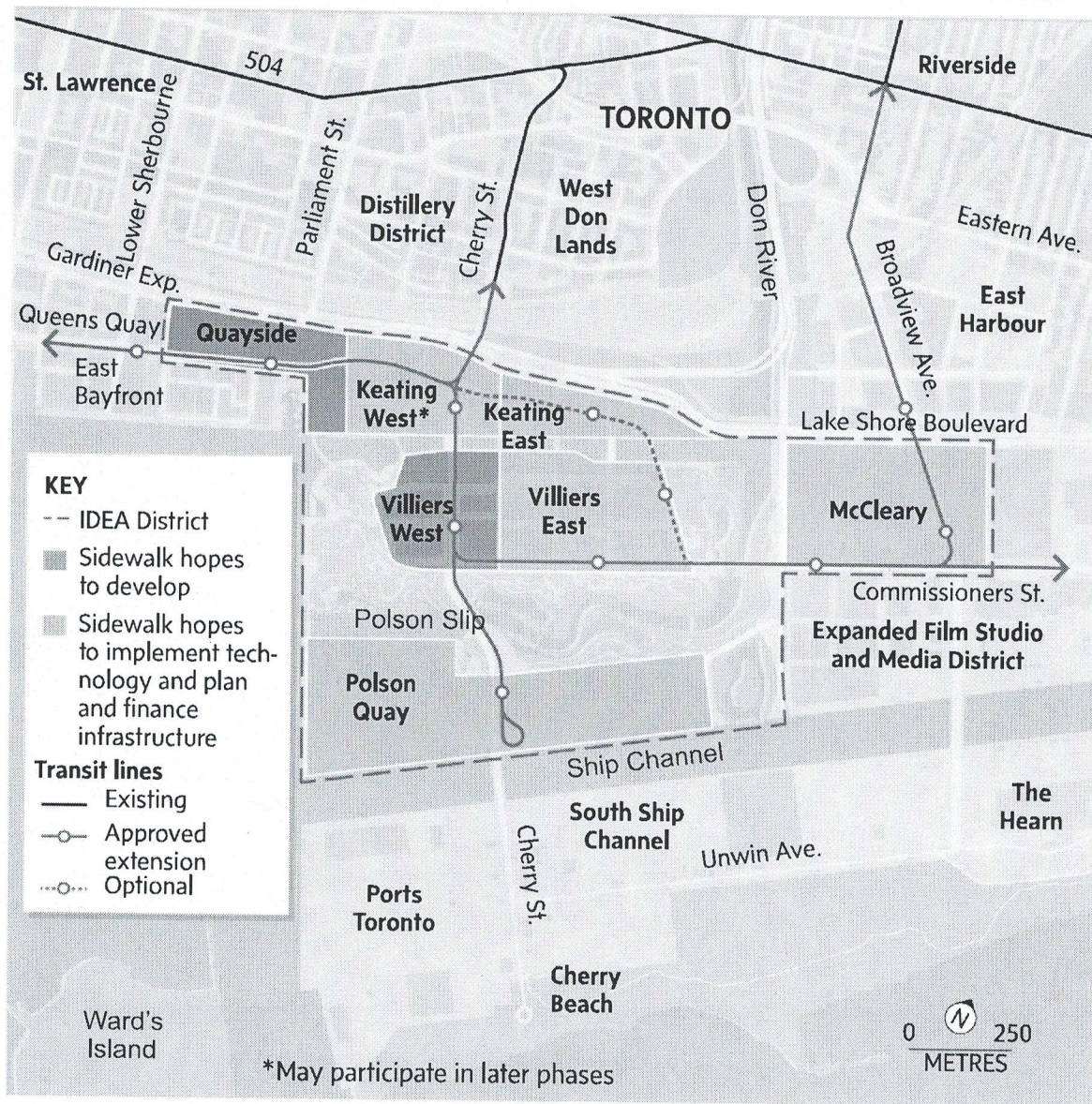
UPDATED 21 HOURS AGO

10 COMMENTS

Sidewalk Labs, the Google-affiliated company selected in 2017 to redevelop a piece of Toronto's eastern waterfront, delivered its proposed master plan to the public on Monday. It outlines how Sidewalk hopes to reinvent the area and sports a laundry list of plans for technological innovation, real estate, construction and data.

The Master Innovation and Development Plan, dubbed "Toronto Tomorrow," spans four volumes and more than 1,500 pages. It kicks off a series of public consultations and negotiations between Sidewalk, the city and Waterfront Toronto – which represents the City of Toronto, the Ontario government and Ottawa – ahead of a final agreement, due in roughly six months.

The land



JOHN SOPINSKI/THE GLOBE AND MAIL, SOURCE: SIDEWALK LABS

Sidewalk's plan encompasses 190 acres on Toronto's eastern waterfront, which it calls the Innovative Development and Economic Acceleration District, or IDEA, for short.

In the original agreement, Sidewalk won the opportunity to plan the 12-acre Quayside area on the site's northwestern edge. If the project was successful, Waterfront Toronto said Sidewalk could eventually be granted the right to develop additional parts of the lakeshore. In plans released Monday, Sidewalk proposes it should also be the lead developer for a larger area, the 19-acre Villiers West, up to three-fifths of which would become the new home of Google's Canadian campus.

The Quayside development would have shovels in the ground in 2021 and occupancy by 2026. Construction for Villiers West would begin in 2023, with an initial move-in date of 2027.

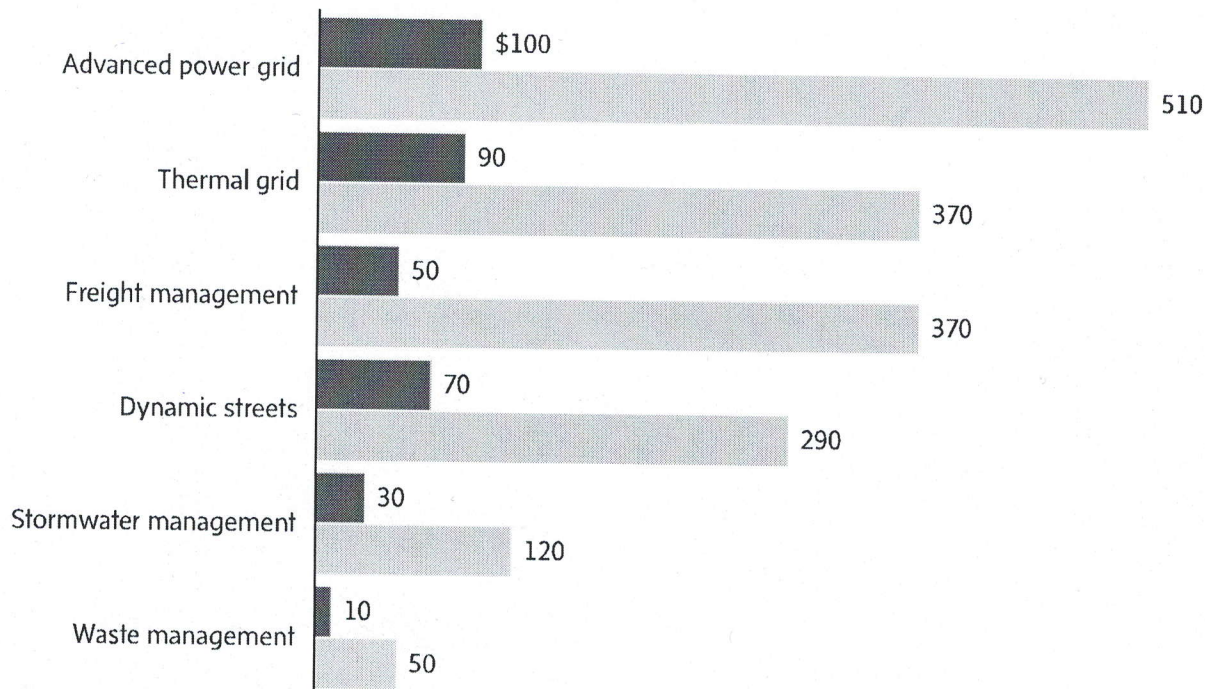
Proposed innovations

Cost estimates for Sidewalk's proposed "advanced systems"

In millions, by area

Quayside and Villiers West

Rest of River District



THE GLOBE AND MAIL, SOURCE: SIDEWALK LABS. NOTE: FIGURES ARE ESTIMATES WITHIN +-15%.

DATA SHARE

The plan describes giant, rotating curtains to shield pedestrians from rain and self-driving delivery pods to transport small packages, all connected by one ubiquitous network. Sidewalk said that the internet network, powered by Google technology, uses less equipment and reaches higher speeds than current internet services. The network would allow residents and businesses to access their own personal networks, including devices at home, school and work, anywhere in the development.

To allow third parties to provide services to the area, Sidewalk would use what it calls urban USB ports, on which companies could install services such as Wi-Fi antennas, traffic counters and air-quality sensors.

Developers, architects and designers could access a digital planning tool that would use computational design, machine learning and simulations to help planners visualize the outcomes of their decisions.

A central mobility system could monitor vehicle and pedestrian traffic to adapt roadways in real time. If a crowd of concert-goers were leaving a venue, the system could alter pricing on ride-sharing services and bike-sharing programs. Sidewalk said that the management system

uses non-personal and de-identified data, such as sensors at curbsides to detect available space and pedestrian counts via camera and immediately delete raw video footage to protect individual privacy.

When the rain or wind beats down on a public space, an outdoor comfort system would deploy a series of retractable covers to shield plazas and pathways of people.

A logistics hub would consolidate freight information and dispatch packages through an underground tunnel network of self-driving transportation vehicles.

Business model

Sidewalks says it wants to be the developer for Quayside and the western half of Villiers Island. The price tag for securing ownership of those lands, currently largely owned by Waterfront Toronto, the city and PortsToronto, would be subject to future negotiations.

But Sidewalk expects to make a market return on the two valuable pieces of waterfront real estate. The company says it would not be the developer on the other lands it wants to include in its plan. While it pledges to provide new technology, such as its network of sensors, at cost, it says it would resell anything it develops to other cities at market rates. It would also give the public sector a 10-per-cent profit-sharing deal on "certain technologies first deployed" in the new waterfront district.

Sidewalk also pledges not to enforce its Canadian patent rights on new patents it files during its efforts in Toronto, allowing startups or governments access to its technology. But there is a condition: Companies that launch patent cases of their own against Sidewalk Labs would lose their access to Sidewalk Labs' patents.

Data governance and privacy

One of the key public criticisms of the proposed project has been around how data would be collected and stored. Sidewalk has said in recent months it wants data to be managed by an independent trust, to which anyone developing technology, including Sidewalk, would need to apply for permission.

Sidewalk expanded upon that plan, suggesting it and other development goals be overseen by a "public administrator that can prioritize innovation and new approaches without

compromising the public interest.”

How that data generated by the public gets used to develop new wealth-creating innovations has also been a contentious issue. Critics have expressed frustration that being a sister company to Google gives Sidewalk an upper hand because it would already have access to a vast pool of data about peoples' lives.

Intellectual-property experts have warned that Waterfront Toronto should take a strong position in getting a piece of any IP Sidewalk might develop with Canadians' data. Earlier agreements between Sidewalk and Waterfront say that the two parties would share in Sidewalks' innovations, though no specifics were yet outlined.

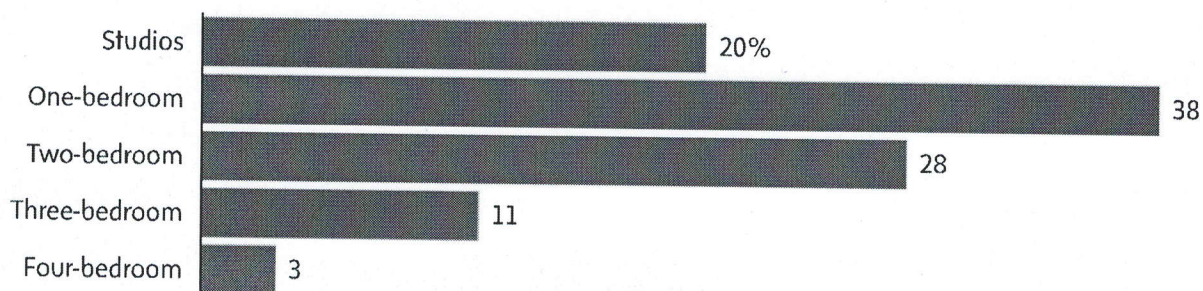
Financing the Waterfront East LRT

Sidewalk Labs is offering up to \$400-million in what it calls “optional financing” for the city to build the planned but so-far-unfinanced \$1.2-billion Waterfront East light-rail transit line. The line, crucial to connect the new high-tech waterfront neighbourhood to the rest of the city, would remain in public hands. But in exchange for the loan, Sidewalk says it would demand “market return for the magnitude and risk associated with the agreed-upon financing structure.”

Affordable housing

Breakdown of Sidewalk's proposed housing units at Quayside

Percentage of total units



THE GLOBE AND MAIL, SOURCE: SIDEWALK LABS

DATA SHARE

Sidewalk Labs is promising that 40 per cent of the residential units at the two initial sites would be affordable. However, only half of that will meet the city's definition, which is at or below the average market rent across the entire city. A quarter of this 20 per cent is described as “deeply affordable,” or well below that market average. The other 20 per cent of promised

affordable units, which Sidewalk says will be affordable for “middle income households,” will consist of a mix of units offered at 100 per cent to 150 per cent above the average market rent, plus a small number of owned units using a non-profit “shared equity” ownership model. Market rates for rent in such a desirable location are expected to be much higher than the citywide average. Sidewalk says its plan will produce 1,700 “below market” units.

Legal and regulatory changes

The plan proposes a wide array of major rule changes for governments – changes Sidewalk says it needs to increase flexibility to allow its promised innovations to happen. Its plans could require the creation of new quasi-government entities to oversee the greater IDEA District, including one that would supplant things now handled by the Toronto Parking Authority and sell special transit passes. Rewrites would be required to a long list of legislation and city rules. Sidewalk’s “dynamic curbs,” which use lighting to narrow or widen roads depending on the time of day, require Highway Traffic Act changes, as well as changes to the City of Toronto Act. Its special ride-hailing zones, “adaptive traffic signals” and changes to speed limits will also require legislative changes, as will Sidewalk’s movable canopies to protect pedestrians from rain or snow. The Building Code may need changes to allow 30-storey timber buildings, and to allow for smaller units than currently called for under the city’s affordable rental guidelines. Sidewalk’s plans for a new power grid, meanwhile, will require Ontario Energy Board changes.

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