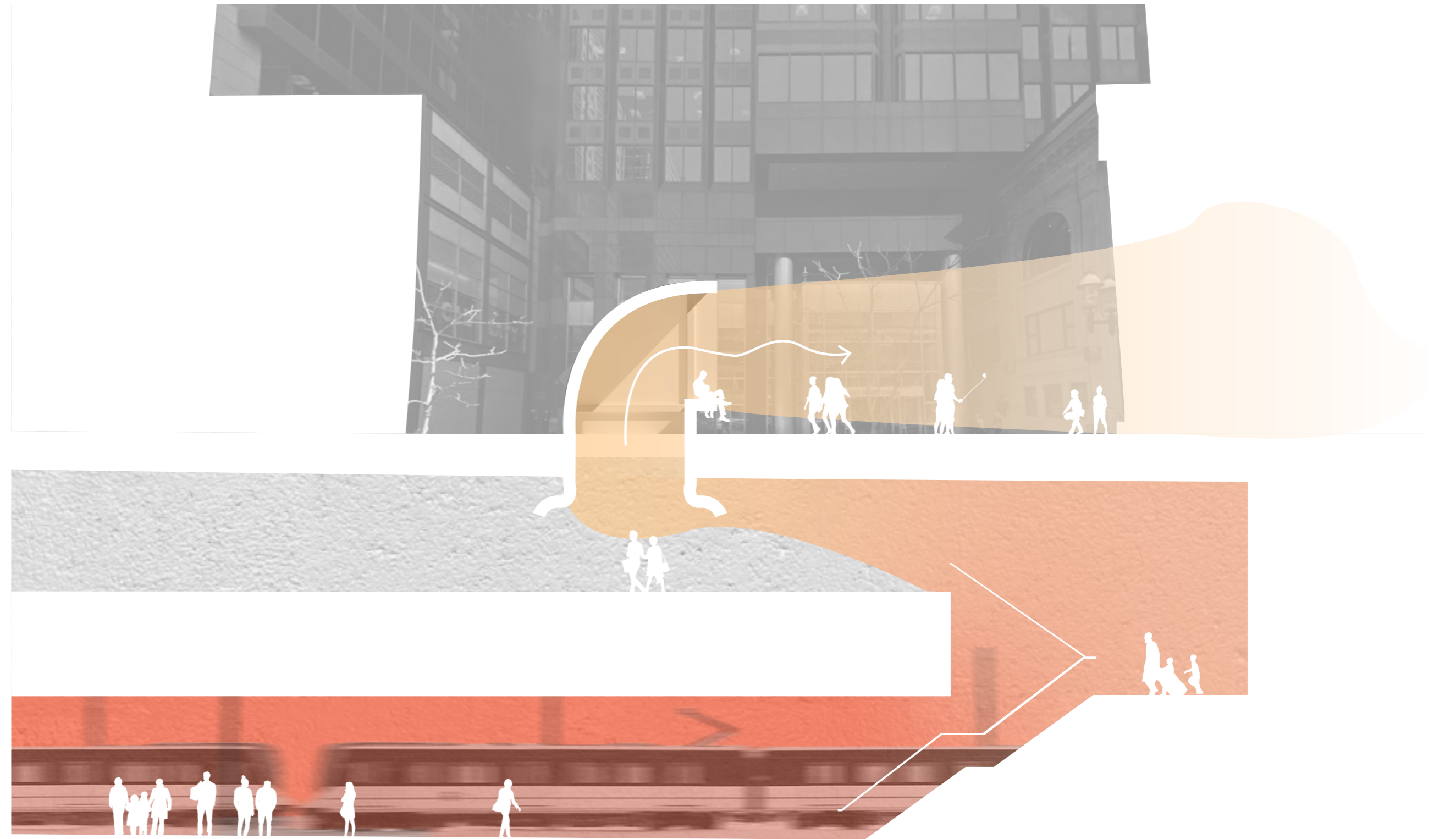


# VENT Space

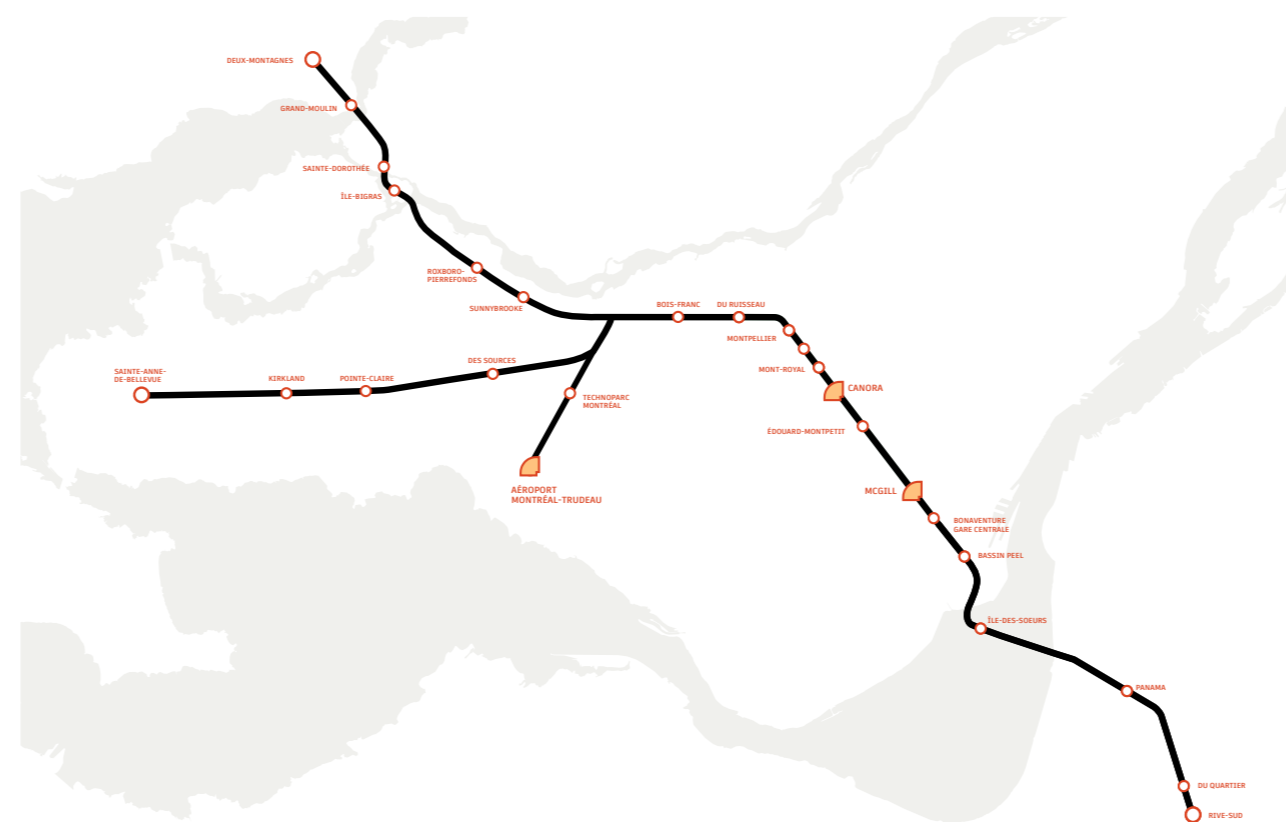
Mass public transit, like Montréal's ambitious REM, is critical to ensuring sustainable and vibrant urban futures. However, transit systems must go beyond low-carbon transportation to address environmental, social, and economic inequity. In Montréal and across Canada, cities are faced with compounding health and housing crises, social isolation, and climate vulnerability. **In this context, and under intense public and political scrutiny, transit systems must do more.**

In response to this imperative, *VENT Space* deploys oversized air VENTs above underground REM stations to create a network of dynamic, informal gathering spaces across the city. VENTs are simple, low-impact, passive systems, channeling and redirecting the subterranean air that is pushed through subway tunnels by moving trains. They improve climate change resiliency and urban sheltering opportunities, offering warming spaces in the winter and cooling spaces in the summer.

VENTs register the excitement and energy of mass transit above-ground. Brightly coloured forms celebrate the ubiquitous air duct, and other utilitarian infrastructure, while each VENT's strong directionality evokes the motion of trains beneath the plaza. The project redistributes the social animation and shelter found in REM stations (public, but not always accessible) to all.



The **'piston effect'** describes the process by which subterranean air is pushed up and out of underground stations by the forward motion of passing trains. *VENT Space* redeploys this phenomenon to the benefit of the above-ground public realm.



VENTs are initially proposed at McGill, Canora and Aéroport-Montréal Trudeau stations, where platforms are located underground.



In the 2018 census, the Montréal unhoused population hit 3,149. According to the MMFIM (Mouvement pour Mettre Fin à l'itinérance à Montréal), that number has risen significantly since the outset of the COVID-19 pandemic and with the worsening affordability crisis. **In winter, VENTs redirect balmy, subterranean air to create accessible warming spaces in the public realm. A long bench and canopy afford rest and shelter to any that need it.**



In 2018, a devastating heat wave claimed the lives of 66 Montréalers. As the climate changes, similar heat events are expected to increase in both severity and frequency. Low income, socially isolated and elderly residents are the most at risk, often lacking access to air conditioning, green space and community support. **In summer, VENTs create barrier-free, public cooling spaces in the densest neighbourhoods. Cooling spray nozzles, mounted in the upper frame of each VENT, provide refuge from the heat (and opportunities for play) with each passing train.**