

Results of Environmental Scan¹

The following section contains the results of our environmental scan of North American outdoor accessible public washrooms initiatives. The team included one international example, the transparent toilets of the Tokyo Toilet Project, due to the scale and media attention surrounding the project. In total, our scan includes 11 initiatives that the team deemed potentially replicable or possessing best practices that would be beneficial to the BNA. We divided our results into two tables:

- Table 1 - Scan of Permanent Outdoor Public Washroom Initiatives
- Table 2 - Scan of Pilots, Seasonal and/or Temporary Outdoor Public Washroom Initiatives

Each table is organized alphabetically by initiative name and provides an overview of the following characteristics:

- Location
- Date
- Operational Status
- Infrastructure (e.g., design, features, and accessibility)
- Operations and Maintenance (e.g., costs, staffing, and required cleaning)
- Weather proofing, and
- Available community feedback.

These results are by no means an exhaustive evaluation of North American initiatives.

Table 1 – Scan of Permanent Outdoor Public Washroom Initiatives

Initiative	Location	Date	Open	Infrastructure	Operations and Maintenance	Weather Proofing	Community Feedback
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¹ Please review our full report for a discussion of research methodology, the research scan results, and our recommendations for the BNA.

OCTranspo Toilets	<p>Ottawa, Ontario, Canada</p> <p>- 2 locations on the light rail transit (LRT) line</p>	<p>2019</p>	<p>Yes</p>	<p><u>Manufactured by:</u> - Rideau Transit Group</p> <p><u>Partners:</u> - City of Ottawa - OCTranspo</p> <p><u>Design:</u> - Included as part of the inner terminal station</p> <p><u>Accessibility:</u> - Wheelchair accessible with lowered sinks and push to open washroom doors - Washrooms are gendered - Only available to those that have paid the fare for OCTranspo</p> <p>(Kirkpatrick, 2015; S. Taylor, personal communication, December 9, 2020)</p>	<p><u>Hours:</u> - Same as transit times: Monday to Thursday from 5:00 am to 1:00 am; Friday from 5:00 am to 2:00 am; Saturday from 6:00 am to 2:00 am; and Sunday from 8:00 am to 11:00 pm</p> <p><u>Cleaning:</u> - Washrooms are cleaned as part of regular terminal maintenance</p> <p><u>Costs:</u> - Initial construction was estimated to have cost at least \$2.05 million dollars - Maintenance costs are estimated to be \$13,000 per month</p> <p>(Kirkpatrick, 2015; Laucius, 2015; S. Taylor, personal communication, December 9, 2020)</p>	<p>- Located inside enclosed facility with heating</p>	<p>- Informal feedback has been positive, but there is a notable lack of a formal evaluation to judge response to the toilets</p> <p>(S. Taylor, personal communication, December 9, 2020)</p>
Montreal Self-Cleaning Toilets	<p>Montréal, Québec, Canada</p>	<p>2018</p>	<p>Yes</p>	<p><u>Designed by</u> N/A</p> <p><u>Design</u></p>	<p><u>Hours</u> - Oct 16 to May 14 7 days a week from 7:00 am-6:00 pm</p>	<p>- Enclosed structure²</p>	<p>- Widely used - 80-100 cleanings per day</p>

² The research team was unable to find any information on weather proofing or winter maintenance.

	<p>- 4 locations across the city</p>		<ul style="list-style-type: none"> - Free standing square shaped structure - Between each use there is a self-cleaning cycle - Interior is anti-vandalism and anti-graffiti - Automated faucets - Available for individual use for a maximum of 15 mins before doors open automatically - Connected to City services <p><u>Accessibility</u></p> <ul style="list-style-type: none"> - Universal access for users with reduced mobility - Spacious - Handlebars - Unisex stalls - Needle disposal box - Free to use <p><u>Additional Features</u></p> <ul style="list-style-type: none"> - Sliding doors that can be opened in the event of a power outage - System sends alarm to city maintenance crews when toilet paper or 	<ul style="list-style-type: none"> - May 15 to Oct 15 7 days a week from 7:00 am-10:00 pm <p><u>Cleaning</u></p> <ul style="list-style-type: none"> - Self cleaning - Automated sprinklers and squeegees wipe the toilet and floor after each use (lasts 90 secs) - A sanitary maintenance firm also provides cleaning at least once daily <p><u>Costs</u></p> <ul style="list-style-type: none"> - Free standing unit costs \$340,000 - Installation costs of the first 3 toilets approximately \$561,538 - Additional maintenance fees <p><u>Additional features</u></p> <ul style="list-style-type: none"> - Two person teams affiliated with local organizations working with the homeless to visit toilets, answer questions, and report problems <p>(Deschamps, 2018; Scott, 2018; Ville-Montréal, 2020)</p>		<p>- Toilet planned to be opened in Montreal's Chinatown was cancelled due to negative response from the community regarding the selected site location</p> <p>(Lau, 2018; Leavitt, 2020; Scott, 2018)</p>
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				<p>soap runs out or to signal a breakage</p> <ul style="list-style-type: none"> - Automatic sprinklers <p>(Deschamps, 2018; Ville-Montréal, 2020)</p>			
Portland Loo	<p>Portland, Oregon, United States of America</p> <p>- 6 locations across the city</p>	2010	Yes	<p><u>Designed by</u></p> <ul style="list-style-type: none"> - Madden Fabrication in conjunction with the City of Portland <p><u>Design</u></p> <ul style="list-style-type: none"> - Free standing single occupancy restroom - Dimensions 10'7 long x 6 wide x 8'6 tall - 6,000 pounds - Stainless steel - Rounded anti-graffiti walls - Open grating and sight lines - Connected to City sewer - Can take 300 flushes a day <p><u>Accessibility</u></p> <ul style="list-style-type: none"> - American with Disabilities Act (ADA) compliant - Entry railings and fixtures 	<p><u>Hours</u></p> <ul style="list-style-type: none"> - Open 24hrs a day, 7 days a week <p><u>Cleaning</u></p> <ul style="list-style-type: none"> - Cleaned 2-5 times a day - Telephone number to report if cleaning needed - City of Portland has a maintenance contract with a private company to conduct cleaning <p><u>Costs</u></p> <ul style="list-style-type: none"> - \$250,000 to develop - \$95,000 to purchase a single unit - Installation costs vary but ground installation could be around \$40,000-\$50,000 - Approximately \$11,000-\$12,000 annually for cleaning and maintenance <p>(C. Robinson, Portland Loo, personal</p>	<ul style="list-style-type: none"> - Exposed plumbing and toilet bowl wrapped in heated wire for freeze protection <p>(Portland Loo, 2020b)</p>	<ul style="list-style-type: none"> - Occupancy counters report averages of 250 flushes per day - Some initial concerns about degrading the value of neighbouring districts that proved unfounded - Online reviewers have graded it 5 stars, praising the location choices and the unit's cleanliness <p>(E. Madden, Portland Loo, personal communication, 5 October 2020; Portland Loo, 2020b; Portland Loo, 2020d)</p>

				<ul style="list-style-type: none"> - Gender neutral stall - Free to use <p><u>Additional features</u></p> <ul style="list-style-type: none"> - Baby changing station - Large enough to fit a bike or stroller - Solar panels - Skylight and LED lighting - Blue lighting - Hand sanitizer inside and exterior hand washing stations <p>(Aptekar, N.D., City of Portland Oregon, 2020; Portland Loo, 2020a; Portland Loo, 2020b; Portland Loo, 2020c)</p>	<p>communication, 5 January 2021; E. Madden, Portland Loo, personal communication, 5 October 2020; Portland Loo, 2020a; Robinson, 2016)</p>		
San Francisco Pit Stop Program³	<p>San Francisco, California, United States of America</p> <p>- 23 active locations (and</p>	2014	Yes	<p><u>Manufactured by</u></p> <ul style="list-style-type: none"> - JCDecaux (13/23 locations) - N/A (10/23 locations)⁴ <p><u>Design</u></p>	<p><u>Hours</u></p> <ul style="list-style-type: none"> - Open 24 hours a day, 7 days a week (16/23 locations) - All other locations open 7 days a week, hours vary from: 9:00 am to 8:00 pm (2 	- Toilets have air conditioning ⁵	<ul style="list-style-type: none"> - Widely used, program has been adopted by other U.S. cities - Decline in street clearing requests in some areas with Pit Stop units, although

³ The San Francisco Pit Stop Program contains both permanent and temporary initiatives and thus appears in the both scan tables.

⁴ The research team was unable to determine who designed and/or manufactured the washroom.

⁵ The research team was unable to find any information on weather proofing or winter maintenance.

	1 additional location currently closed for service)			<p>- Includes toilet and sink (with running water)</p> <p><u>Additional features</u></p> <ul style="list-style-type: none"> - Used needle receptacle - Dog waste station (bags and trash can) <p><u>Accessibility</u></p> <ul style="list-style-type: none"> - Free to use <p>(San Francisco Pit Stop (n.d.))</p>	<p>locations), 10:30 am to 5:30 pm (1 location), 12:30 pm to 7:30 pm (1 location), 11:00 am to 6:00 pm (1 location), 8:00 am to 8:00 pm (2 locations)</p> <p><u>Staffing</u></p> <ul style="list-style-type: none"> - All locations are staffed by paid attendants - 4 non-profits are under contract to staff the public toilets, and jobs are provided to the formerly incarcerated - JCDecaux funds the staffing for 9 locations in the program <p><u>Cleaning</u></p> <ul style="list-style-type: none"> - JCDecaux toilets are self-cleaning - Attendants make sure washrooms are well-maintained <p><u>Costs</u></p> <ul style="list-style-type: none"> - 2014 annual staffing costs for the pilot program was \$87,360 - The estimated annual cost for the portable toilets was \$101,600 per unit (\$0 for JCDecaux toilets) - In 2019, each toilet cost an average of 		<p>there is still a need for other programs (i.e., Poop Patrol) as well as concerns for the expensiveness of the program</p> <ul style="list-style-type: none"> - Union for Pit Stop workers has expressed concerns regarding toilet's unsanitary conditions <p>(San Francisco Pit Stop (n.d.); San Francisco Public Works, 2018; Bendix, 2018; Matier, 2020)</p>
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					<p>\$200,000/year to operate - largely due to staffing and overhead expenses</p> <ul style="list-style-type: none"> - From mid-August to mid-November 2019, a pilot program was enacted to operate 3 locations for 24 hours/day, which cost an additional \$300,000 - The estimated cost for keeping all 24 locations open 24/7 is an extra \$8.25 million/year <p>(San Francisco Pit Stop (n.d.); City and County of San Francisco, 2015; Har, 2019; Matier, 2019)</p>		
<p>Tokyo Toilet Project, Transparent Toilets⁶</p>	<p>Shibuya Ward, Tokyo, Japan</p> <p>- 2 locations: Yoyogi Fukamachi Mini Park and Haru-No-Ogawa Community Park</p>	<p>August 2020</p>	<p>Yes</p>	<p><u>Designed by</u></p> <ul style="list-style-type: none"> - Architect Shigeru Ban - Developed in conjunction with the Nippon Foundation for the Tokyo Toilet Project <p><u>Design</u></p> <ul style="list-style-type: none"> - Transparent toilets that turn opaque 	<p><u>Hours</u></p> <ul style="list-style-type: none"> - Open 24hrs a day, 7 days a week <p><u>Cleaning</u></p> <ul style="list-style-type: none"> - Nippon Foundation works with the Shibuya City government and Tourism Association to maintain toilets - Professional toilet inspectors survey the 	<ul style="list-style-type: none"> - Washrooms are accessible throughout the year but winter accommodations, such as heaters, have not yet been determined <p>(M. Ueki, The Nippon Foundation, personal)</p>	<ul style="list-style-type: none"> - Initial concerns about whether the stalls would turn opaque or not - The colours and lights of the washrooms make people feel safer using them and walking at night <p>(M. Ueki, The Nippon Foundation, personal)</p>

⁶ The Tokyo Toilet Project will have 17 toilets located throughout the Shibuya Ward. 7 toilets are currently completed, 2 of which are the transparent toilets discussed here.

			<p>when user enters and locks the door</p> <ul style="list-style-type: none"> -Rectangle design to resemble a hut - 3 stalls (male, female, and multipurpose) - Concrete walls, smart glass and warm accent lighting - Colourful to match playground equipment - At night facility lights up like a colorful lantern - Washlet (bidet) installed in all toilets <p><u>Accessibility</u></p> <ul style="list-style-type: none"> - Wheelchair accessible - Handlebars - Facility for ostomy⁷ - Free to use <p><u>Additional features</u></p> <ul style="list-style-type: none"> - Baby chair <p>(McCurry, 2020; The Nippon Foundation, 2020a; The Nippon</p>	<p>toilets to ensure the best user experience</p> <ul style="list-style-type: none"> - Maintenance status of the toilets will be posted online <p><u>Costs</u></p> <ul style="list-style-type: none"> - Construction and installation of the completed 7 toilets of the Tokyo Toilet Projects totals 750,000,000 Japanese Yen (converted to Canadian dollars \$9,444,620) - Still determining annual maintenance costs and appropriate frequency of cleaning <p>(The Nippon Foundation, 2020b; M. Ueki, The Nippon Foundation, personal communications, 6 November 2020; OANDA, 2020)</p>	communications, 6 November 2020)	communications, 6 November 2020)
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⁷ A large flushing sink for anyone who needs to clean a surgical opening in the body for the discharge of bodily wastes.

				Foundation, 2020b; The Nippon Foundation, 2020c; Starr, 2020; Hiufu Wong & Enjoji, 2020)			
TSECHES Toilets⁸	Pierrefonds- Roxboro Borough, Montreal, Quebec, Canada -2 locations: Cérès Parc and du Boisé Parc	2016	No	<u>Manufactured by</u> - Tolitech <u>Design</u> - Shaped to look like a little house - Bright red colour - Opaque roof to provide natural light - Ecological dry toilet - Heat from the sun powers a continuous-air flow system that ventilates and evaporates and/or dehydrates waste <u>Accessibility</u> - Accessible for people with reduced mobility - Handlebars - Unisex	<u>Hours</u> - Open during the summer season 24 hrs a day, 7 days a week <u>Cleaning</u> - Only requires emptying once a year with an external contract - Borough is responsible for regular cleaning of the toilet interior <u>Costs</u> - \$40,000 per unit - Additional maintenance fees ⁹ (Atmosphère, 2020; Greenaway, 2015; M. Hernandez, Ville de Montreal, personal communication, 2 December 2020)	- Closed during the winter months (Greenaway, 2015)	N/A ¹⁰

⁸ TSECHES is an abbreviation for “dry toilets” in French.

⁹ The research team was unable to find any information on the costs of maintenance fees.

¹⁰ The research team was unable to find any information about the community’s reception to the washrooms.

				<ul style="list-style-type: none"> - Large enough for a parent to assist a young child - Free to use <p><u>Additional features</u></p> <ul style="list-style-type: none"> - Requires no running water, electricity, or chemical products - Sanitary system is odourless <p>(Atmosphäre, 2020; Greenaway, 2015; Ville-Montréal, 2015)</p>			
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Table 2 – Scan of Pilots, Seasonal and/or Temporary Outdoor Public Washroom Initiatives

Initiative	Location	Date	Open	Infrastructure	Operations and Maintenance	Weather Proofing	Community Feedback
Pop-Up Winnipeg Public Toilet Initiative	Winnipeg, Manitoba, Canada - In 2018, 4 different locations in the down area - In 2019, located at Main Street	May to October 2018 Summer 2019	No	<p><u>Designed by</u></p> <ul style="list-style-type: none"> - W. Bridgman, Architect <p><u>Partners</u></p> <ul style="list-style-type: none"> - Downtown Winnipeg BIZ - Siloam Mission - Bridgman Collaborative Architecture 	<p><u>Hours</u></p> <ul style="list-style-type: none"> - 2018, Monday to Friday 7:30 am-7:30 pm - 2019, Sunday to Saturday from 7:30 am-4:00 pm <p><u>Cleaning</u></p> <ul style="list-style-type: none"> - Hired attendants to monitor and clean the facility 	N/A ¹¹	<ul style="list-style-type: none"> - Largely positive feedback - 35-40 people used the toilet daily - Positive survey feedback <p>(Bridgman & Bridgman, 2018; Bridgman Collaborative</p>

¹¹ Closed during the winter season.

	Project and Thunderbird House			<u>Design</u> - Bright orange coloured shipping container - Acrylic glazed double walls that slide up when the facility is open and down when it is closed - 2 portable toilets - Kiosk space - Not connected to City services <u>Accessibility</u> - Free to use - 1 portable toilet with wheelchair access - Sloped sidewalk (Bridgman Collaborative Architecture, 2018)	<u>Costs</u> - 2018 total cost \$100-\$125,000 (e.g., consulting, construction, permits, labour, wages, cleaning, etc.) - 2019 total cost \$40,000 (would be typical maintenance cost moving forward) <u>Additional features</u> - Enviro clean team and CHAT social workers on site daily to engage the community (Bernhardt, 2019; Bridgman & Bridgman, 2018; Bridgman Collaborative Architecture, 2018; Downtown Winnipeg Biz, 2019; Hendricks, 2018)		Architecture, 2018)
Portable Toilets Pilot Project	Calgary, Alberta, Canada	Trial 1: December 2006 to March 2007	No	<u>Designed by</u> N/A ¹²	<u>Hours</u> N/A ¹⁵	N/A ¹⁶	N/A ¹⁷

¹² The research team was unable to determine who designed and/or manufactured the washroom.

¹⁵ The research team was unable to find any information about the hours of operation for this pilot.

¹⁶ The research team was unable to find any information on weather proofing or winter maintenance.

¹⁷ The research team was unable to find any information about the community's reception to the washrooms.

		Trial 2: August 2007 to August 2008		<u>Partners</u> - City of Calgary - Clean to the Core ¹³ <u>Design</u> - Portable toilets <u>Accessibility</u> N/A ¹⁴ (City of Calgary, 2008)	<u>Cleaning</u> - Cleaning was done by the Clean to the Core staff, however this service was discontinued in March 2007 due to vandalism and unsafe conditions <u>Costs</u> - In August 2008, cleaning and maintenance costs were just over \$6,000 per month totaling an annual cost of \$72,000 - In September 2008, the cost was projected to increase to \$16,800 per month because of hazardous materials and the need for additional insurance (City of Calgary, 2008)		
Prince George	Prince George, British	April to December 2020	No	<u>Designed by</u> N/A ¹⁸	<u>Hours</u> - Open daily from 5:00 am-10:00 am	- Located inside enclosed facility with heating	- Community feedback has

¹³ Clean to the Core is a team of more than 15 City of Calgary Departments and external partners from community organizations and businesses in Calgary's city centre.

¹⁴ The research team was unable to find any information on accessibility features for the pilot.

¹⁸ The research team was unable to determine who designed and/or manufactured the washroom.

<p>Plaza Washrooms</p>	<p>Columbia, Canada - 808 Canada Games Way</p>	<p>(C. Bone, personal communications, Nov 4, 2020)</p>		<p><u>Design</u> - Used existing infrastructure in an available bathroom in the Canada Games Plaza</p> <p><u>Partners</u> - Funded by the Canadian Medical Association - Implemented by the City of Prince George - City also partnered with a peer organization to provide operations and maintenance support</p> <p><u>Accessibility</u> - Wheelchair accessible stall - Harm reduction infrastructure, such as sharps disposal containers and naloxone kits - Free to use</p> <p>(Balzer, 2020; C. Bone, personal communications, Nov 4, 2020)</p>	<p>and 7:00 pm to midnight</p> <p><u>Cleaning</u> - Hired attendants monitor and clean the facility</p> <p><u>Costs</u> - Information on total costs unavailable - Funded by a grant of \$48,000, plus minimal additional support from the City of Prince George - The City provided a trailer (\$500 per month) outside the plaza for the peers to use as their office</p> <p>(Balzer, 2020; C. Bone, personal communications, Nov 4, 2020)</p>		<p>been largely negative - Concerns arose regarding congregation and safe drug use (C. Bone, personal communications, Nov 4, 2020)</p>
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San Francisco Pit Stop Program	San Francisco, California, United States of America - 26 locations	2020	Yes	<u>Designed by</u> N/A ¹⁹ <u>Design</u> N/A ²⁰	<u>Hours</u> - 24 hours a day, 7 days a week (25/26 locations) - 6:30 am to 2:30 pm (1/26 locations) <u>Cleaning</u> - Portable toilets are trucked to and from the sites daily after overnight servicing at a remote location - Like the non-temporary Pit Stop locations, attendants make sure washrooms are well-maintained (San Francisco Public Works, 2016; San Francisco Pit Stop (n.d.); Office of the Mayor, 2020)	N/A ²¹	N/A ²²
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¹⁹ The research team was unable to determine who designed and/or manufactured the washroom.

²⁰ The research team was unable to find information about the design of the washrooms.

²¹ The research team was unable to find any information on weather proofing or winter maintenance.

²² The research team was unable to find any information about the community's reception to the washrooms.

Whyte Avenue Public Washroom Pilot Project	Edmonton, Alberta, Canada - Whyte avenue and Gateway Boulevard	December 2019 to present	Yes	<u>Designed by</u> - James Townsend, architect with Shelterbelt Architecture <u>Partners</u> - Boyle Street Ventures - Boyle Street Property Maintenance - City of Edmonton <u>Design</u> - Building with see-through windows - Stalls and urinals - Gendered washrooms - Outdoor urinals - Glass to prevent illegal activity <u>Accessibility</u> N/A ²³ (J. Phelans, personal communication, November 3, 2020; Ramsay, 2019)	<u>Hours</u> - Monday to Friday from 9:30 am-9:30 pm <u>Cleaning</u> - Hired 2 attendants to clean the toilets <u>Costs</u> - Approximately \$20,000 a month in operation expenses - Funding of \$36,000 provided by the City of Edmonton - Cleaning costs are provided and covered by Boyle Street Property Maintenance <u>Additional Features</u> - Attendants trained and hired by Boyle Street Ventures - Attendants were also responsible for recognizing unsafe practices, and providing peer to peer counselling in crisis situations (J. Phelans, personal communication,	- Building is heated in cold temperatures (J. Phelans, personal communication, November 3, 2020)	- Largely positive response from the community
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²³ The research team was unable to find any information on accessibility features for the pilot.

					November 3, 2020; Ramsay, 2019)		
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