

Sidewalks & Pathways

Led by: Director of Mobility

Description

Mobility designs and maintains Calgary's network of sidewalks and pathways. This pathway system is one of the most extensive metropolitan pathway networks in North America. With traffic control and safety, sweeping and snow control, Mobility supports active travel modes and wheeling for all ages and abilities. Sidewalks, pathways, trails and protected on-street bikeways connect communities and provide Calgarians with safe and accessible year-round opportunities to walk, cycle, run, ride, and use mobility devices. We focus on inclusive, equitable, safe, accessible and reliable sidewalks and pathways to ensure that walking and wheeling are viable and attractive options for all Calgarians.

Value and benefits

Calgarians make over eight hundred thousand trips per day by walking and wheeling on the City's sidewalks and pathways, and this enables Calgarians realize the physical and mental health benefits of these activities. Safe, accessible, and walkable communities are important to Calgarians, and sidewalks and pathways provide convenient connections to neighbors, shopping, services, and natural spaces. We support clear rules and processes for businesses to access sidewalks and pathways for special uses.

Our sidewalks and pathways aim to provide alternative modes of travel that adhere to the Always Available for All Ages and Abilities (5A) guidelines. In addition, we develop comprehensive plans for future networks and design standards for a wide variety of contexts, which allows developers and communities participate in the realization of an active sidewalk and pathway network in the city.

Customers

Calgary's sidewalk and pathway network is enjoyed by commuters and recreational users of all age groups and abilities. The network supports active travel modes and connects people to services and amenities such as parks, parking, public transit, and other locations. Businesses, utilities, and festivals use the space for access and special events.

Partners

We partner and consult with agencies and industry stakeholders across public and private sectors to deliver services that Calgarians need. Partners such as developers and the construction industry collaborate with our service regarding infrastructure design and construction. Community/business associations, school boards and the Calgary Policy Service are also engaged regarding safety initiatives.

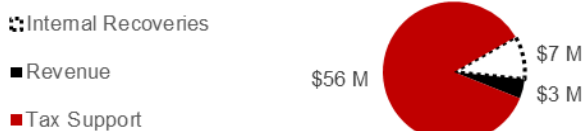
What we deliver

The Sidewalks & Pathways service includes the planning, design, construction, and maintenance of approximately 5,900 km of concrete sidewalks, 1,100 km of paved pathways, 150 km of designated trails, and protected bikeways. Elements that support Sidewalks & Pathways include pedestrian bridges, pedestrian corridors, rapid flashing beacons, pedestrian-activated flashers, crosswalks, and lighting.

292 million	Number of trips per year
5899 km	Length of sidewalks maintained
4644	Number of actuated crossings maintained
4806	Number of service requests in 2021

Sidewalks and Pathways

2022 Budgeted Gross Operating Expenditures Funding Breakdown (\$ Millions)*



* Gross operating budget may include internal recoveries that are also included in other services' gross operating cost.

Note: Internal recoveries is how The City accounts for the costs of goods or services between services

Key assets

Sidewalks & Pathways primary asset classes include: Pedestrian Bridges (194), Plus 15s (87), Sidewalks (5,899 km), Paved Pathways (1,100 km), Designated Trails (150 km), Overhead Flashers and Rectangular Rapid Flashing Beacons.

What we have heard & what we are watching

What we have heard

The Citizen Satisfaction Survey shows a positive trend with satisfaction for our service performance at 94 per cent. The pathway network is considered either as “Very Important” or “Somewhat Important” by the public (66 per cent and 28 per cent, respectively, totaling 94 per cent).

However, Calgarians shared a lower satisfaction with snow clearing on sidewalks along Calgary's main roads (69 per cent). We will continue to monitor performance indicators, and the new Snow and Ice Control Policy will address some concerns. Almost an equal percentage of Calgarians agree that The City should increase the budget for snow and ice removal on sidewalks (63 per cent). Calgarians expect accessibility improvements and in response, we plan to install wheelchair ramps. Survey results indicate that the overall desire to further invest in sidewalks and pathways is 49 per cent.

What Council has directed

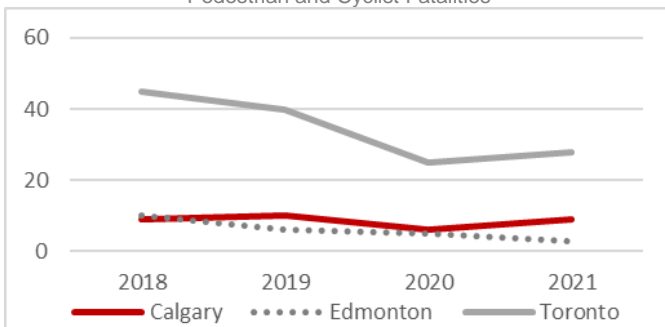
The Sidewalks & Pathways service is committed to supporting all Council focus areas. We will continue to focus on improvements in downtown revitalization with the support of Plus 15 wayfinding improvements and enhance the overall network in alignment with Council's Always Available for All Ages and Abilities (5A) network directives. The 5A guiding principles on travel networks include separating people by their speed, and improving visibility, reliability, accessibility and ease-of-use. Considerations also focus on optimizing sidewalks and pathways to enhance network connectivity to any underserved areas and prioritize missing network links. As technology and business modes change, we are modernizing our service with new mobility trends such as automated-vehicle usage on sidewalks. We will also continue to support Council's strategic direction with plans and policies such as the Calgary Transportation Plan, the Safer Mobility Plan, the Step-Forward Strategy and the Cycling Strategy.

What we are watching

The expectations of Calgarians are changing as demographics and behaviors evolve. Furthermore, the city's growth continues to drive network expansion and the need to connect communities. Hence, we continually monitor and adjust to trends that impact delivery of the Sidewalks & Pathways service. These adjustments include an increasing focus on pedestrian and cyclist safety, an emphasis on year-round accessibility and wayfinding, and the long-term impact of the pandemic on the economy. Insufficient funding to maintain/upgrade related infrastructure is also a key risk.

Emerging transportation technologies such as e-bikes, scooters and pedelecs, and business models such as undocked bike sharing are changing how we move. There is also a growing number of commercial activities such as festivals and mobile vendors that use our street and pathway network. Thus, we continue to monitor provincial, national and international standards and trends that promote safe walking and wheeling activities.

Pedestrian and Cyclist Fatalities



City of Calgary-Mobility Analytics, City of Edmonton-Traffic Safety Site and City of Toronto-Vision Zero Dashboard

Comparing our service

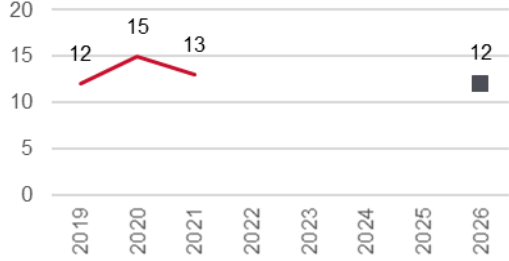
A safe sidewalk and pathway system is an integral part of our service and major Canadian cities move towards this goal regarding similar infrastructure. In 2021, the number of pedestrian and cyclist fatalities increased in Calgary and Toronto, while decreasing in Edmonton. Although Toronto had a relatively high number of fatalities in 2021, both Toronto and Edmonton have an overall downward trend from 2018-2021, while Calgary shows a slightly more alternating trend. We will continue to explore related improvements through engagement, design, engineering, education, feedback and enforcement.

Measuring performance & where we want to go

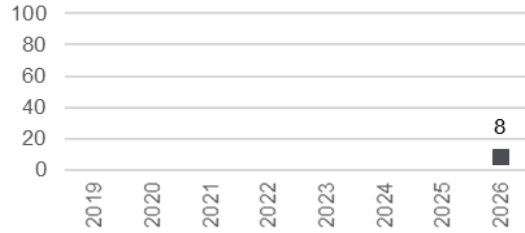
For Council Approval

— Actuals ■ Expected Future Performance

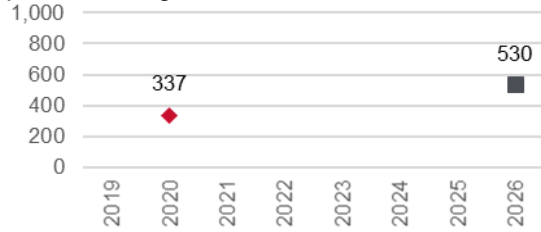
PM1: Average number of days for sidewalk construction



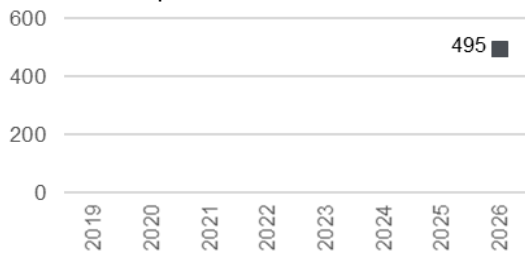
PM2: Material usage for environmental sustainability (per cent realized in carbon footprint related to green material initiatives)



PM3: Number of traffic signals with accessible pedestrian signals



PM4: Number of active control devices available for pedestrians



PM5: Snow and ice control completion at prioritized transit/accessible locations within targeted timeframes (per cent)



Story behind the curve

When the duration of sidewalk construction is minimized, Calgarians benefit from the provision of reliable and safe infrastructure. While previous years have seen lower durations for sidewalk construction, there are a variety of emerging construction factors such as weather, supply chain delays and challenges with material acquisition that impact the annual average duration of construction work. Hence, the expected future performance considers these impacts while we continually work towards lower construction durations.

This new performance measure focuses on environmental sustainability through the adoption of green initiatives in material usage. A minimum of eight percent reduction in carbon or related environmental sustainability footprints from 2022 levels of material usage is anticipated by 2026 through planned material adoption of green concrete and carbon upcycled products.

To ensure that we deliver the right services to all Calgarians and enable safe pedestrian traffic on our sidewalk and pathway network, equipping traffic signals with accessible pedestrian devices is necessary. The expected future performance for this measure focuses on increasing the number of accessible pedestrian signals in the network.

Active control devices for pedestrians include Rectangular Rapid Flashing Beacons (RRFBs), overhead flashers and pedestrian signals in operation, with the objective of enhancing commitment to mobility modes that do not include vehicles. This new performance measure aims to have at least 495 active control devices available on the network by 2026.

Building upon feedback and engagement with Calgarians, this newly included pedestrian-focused performance measure focuses on the delivery of winter maintenance services on high priority routes with a focus on accessibility and services for pedestrians. The expected future performance was set to provide a high level of service and safe mobility on sidewalks and pathways. Higher target rates can be challenging due to the nature of major weather events. The 95 percent target is among the highest in Canada for large cities and is an annual target driven by Council policy.

What we plan to do

Result for 2023-2026

Our service focuses on accessibility, innovative design, pedestrian and cyclist safety and education, reliability, connecting communities, wayfinding improvements, supporting commercial activities, modernizing service delivery, and adopting safe walking and wheeling practices.

How we are going to get there

Enhance support for walking and wheeling as preferred mobility choices to and beyond schools, shopping, parks, recreational and other locations by prioritizing Always Available for All Ages and Abilities (5A) routes, enabling coordinated lifecycle replacements with adjacent roadway assets and other engineering measures that connect or extend routes, and address missing sidewalk or pathway links.

Provide innovative and environmentally-friendly approaches to sidewalk design and construction, and reduce carbon dioxide emissions through the exploration and implementation of carbon upcycling practices, using waste material such as fly ash in concrete sidewalks and by adopting the usage of glass materials in new use categories such as concrete construction.

Improve the availability and use of sidewalks and pathways infrastructure to Calgarians by enhancing coordination, engagement, collaboration, feedback and communication activities with workgroups, supporting partners and impacted communities.

Improve the safety, accessibility and attractiveness of the pedestrian realm through continuous improvement, design, maintenance, innovation, benchmarking, and implementation of related programs and technology such as piloting the use of heave phenomena control devices that control the expansion and contraction of concrete.

Strengthen the culture of safety throughout the sidewalks and pathways network by establishing safety protocols and projects through the Safer Mobility Plan, and exploring opportunities for more social media-based campaigns and short animated clips about safe pedestrian behavior that would engage various age groups and focus on the shared responsibility of safety for all sidewalk, pathway and roadway users.

Enhance maintenance and functional performance through the use of collected data, analysis, reporting, forecasting, risk-based approaches and innovative equipment exploration such as the use of Segway-style paint machines for painting longer stretches or tight areas, and the use of durable marking products that make crosswalks and high pedestrian traffic areas visible even after winter and increase safety for pedestrians.

Provide Calgarians with stronger sidewalks that require less maintenance and have an extended lifespan through updated sidewalk designs and specifications.

Continually enhance responses to community traffic, walking and biking concerns or issues, through attention to 3-1-1 trends and innovative techniques to delivery efficient and effective service improvement.

Enhance snow and ice control on sidewalks and pathways by continuing to explore cost-effective methods and innovative technology-based solutions for removing snow and ice.

Advance additional carbon dioxide emission reduction, incorporating green technologies and materials for environmental sustainability, through the use of materials such as Green Concrete which can store carbon dioxide and by replacing cement material with limestone which reduces cement content by five percent.

Adopt permanent public realm enhancements by continuing to review, explore and investigate temporary options for transition towards permanent public realm structures where applicable or required.

Provide service quality and responsiveness associated with the sidewalks and pathways service by continually monitoring and reviewing overall network usage and fee schedules.

Operating budget needed to achieve results

For Council Approval

Breakdown of net operating budget (\$000s)

	2023		2024		2025		2026	
	Base	One-time	Base	One-time	Base	One-time	Base	One-time
Previous Year's Net Budget	50,778	-	53,073	-	53,993	-	54,610	-
Previously approved One-time budget		-		-		-		-
2022 One-time carry forward		-		-		-		-
Revenue Changes	(200)	-	(200)	-	(200)	-	(200)	-
Internal Recoveries Changes	-	-	-	-	-	-	-	-
Inflation	2,136	-	608	-	625	-	626	-
Operating Impact of Previously Approved Capital	6	40	26	80	45	120	65	160
Operating Impact of New Capital (Incremental)	-	-	-	-	-	-	-	-
Service Reductions	-	-	-	-	-	-	-	-
Service Increases	353	-	486	-	147	-	147	-
Total net budget*	53,073	40	53,993	80	54,610	120	55,248	160

*The previous year's One-time Budget is not carried forward to the following year.

Total Operating Budget (\$000s) for Approval

	2022 Budget	2023			2024			2025			2026		
	At April 30	Base	One-Time	Total	Base	One-Time	Total	Base	One-Time	Total	Base	One-Time	Total
Expenditures	66,014	62,809	40	62,849	63,928	80	64,008	64,745	120	64,865	65,583	160	65,743
Recoveries	(6,586)	(6,586)	-	(6,586)	(6,586)	-	(6,586)	(6,586)	-	(6,586)	(6,586)	-	(6,586)
Revenue	(2,949)	(3,149)	-	(3,149)	(3,349)	-	(3,349)	(3,549)	-	(3,549)	(3,749)	-	(3,749)
Net	56,478	53,073	40	53,113	53,993	80	54,073	54,610	120	54,730	55,248	160	55,408
Base	50,778												
One-time	5,700												

Note: Figures may not add up due to rounding.

Capital budget needed to deliver service

For Council Approval

Activity	Investment Name	2023 Request (\$000s)	2024 Request (\$000s)	2025 Request (\$000s)	2026 Request (\$000s)	2027+ Request (\$000s)	Total Request (\$000s)
Annual Investment Program(s)							
481354	Concrete Rehabilitation	4,000	4,000	4,000	4,000	-	16,000
423080	Pathways & Trails Lifecycle	1,500	1,500	1,500	1,500	-	6,000
481350	Plus 15 Rehabilitation	2,000	2,000	2,000	2,000	-	8,000
464929	Public realm investments	5,000	6,500	8,300	13,200	-	33,000
481360	Accessibility Improvements	1,500	1,500	1,500	1,500	-	6,000
463960	Main Streets	14,225	16,130	16,545	13,100	-	60,000
Program(s)							
481400	Community Mobility Improvements	500	2,000	2,000	220	-	4,720
446454	5A Network Development Accelerator	4,000	12,000	12,000	12,000	-	40,000
Projects(s)							
Sub-Total (New Budget Requests)							
		32,725	45,630	47,845	47,520	-	173,720
Previously Approved Budget Remaining							
		19,986	4,061	294	-	-	24,341
Total Capital Investment							
		52,711	49,691	48,139	47,520	-	198,061

Explanation of capital budget requests

Annual Investment Program(s)

Activity 481354: Concrete Rehabilitation

This program funds replacement of concrete assets and ensuring an accessible, pedestrian friendly environment. Improving pedestrian accessibility is the key outcome of this program.

Funding From: Canada Community-Building Fund (\$12,480 thousand) Pay-As-You-Go (\$3,520 thousand)

Contributing Services: None

Operating Impact: None

Activity 423080: Pathways & Trails Lifecycle

This program ensures pathways and trails are maintained and extends their lifespan and reduces the need for more expensive repairs. Pathways are a critical component of Calgary's pedestrian and cycling networks and contributes to high quality of life.

Funding From: Municipal Sustainability Initiative (\$2,970 thousand) Canada Community-Building Fund (\$2,970 thousand) Lifecycle Maintenance & Upgrade Reserve (\$60 thousand)

Contributing Services: None

Operating Impact: None

Activity 481350: Plus 15 Rehabilitation

This program contributes to vibrancy of the downtown core by providing lifecycle rehabilitation and protection of Plus 15 bridges. Plus 15 Network is a key part of Calgary's downtown that enables pedestrian travel in an all-weather transportation network and attracts businesses.

Funding From: Municipal Sustainability Initiative (\$6,960 thousand) Pay-As-You-Go (\$1,040 thousand)

Contributing Services: None

Operating Impact: None

Activity 464929: Public realm investments

Public realm investments were identified with input from stakeholders to attracting investment, creating complete communities, and supporting growth. Public realm investments have been identified with input from developer and community stakeholders to align with plans and corporate goals.

Funding From: Reserve for Future Capital (\$12,000 thousand) Capital Reserves (\$21,000 thousand)

Contributing Services: None

Operating Impact: None

Activity 481360: Accessibility Improvements

This program will provide an enhanced level of service for pedestrian accessibility while also improving meaningful access in facilities. Accessibility is a priority for Council and enhances social equity by delivering infrastructure for all needs.

Funding From: Canada Community-Building Fund (\$4,140 thousand) Pay-As-You-Go (\$418 thousand) Reserve for Future Capital (\$1,442 thousand)

Contributing Services: None

Operating Impact: None

Activity 463960: Main Streets

Constructing equitable and vibrant main streets that builds economic resiliency, improves health and safety throughout Calgary communities. Rebuilding and modernizing equitable use and access of our streets and sidewalks that improve safety, economic investment and health.

Funding From: Municipal Sustainability Initiative (\$54,000 thousand) Lifecycle Maintenance & Upgrade Reserve (\$6,000 thousand)

Contributing Services: None

Operating Impact: None

Program(s)**Activity 481400: Community Mobility Improvements**

This program is dedicated to the strategic investment in planned community mobility and active transportation infrastructure, equipment and testing. Program will support transportation choices for people to walk and cycle, at all ages and abilities and will promote safer streets and neighborhoods.

Funding From: Pay-As-You-Go (\$4,720 thousand)

Contributing Services: None

Operating Impact: None

Activity 446454: 5A Network Development Accelerator

The 5A (Always Available for all Ages and Abilities) Network Development Accelerator Program, will deliver additional kilometers of priority segments of the Network. The Program will include planning, design, construction, and operation of the 5A Network. Of specific focus will be providing safe routes for kids going to school, addressing locations with known safety concerns, and completing missing links. It is anticipated that the program will add approximately 20 kilometers to the 5A network. Included in the program is the installation of 2 Rapid Flashing Light Beacons per ward.

Funding From: Reserve for Future Capital (\$20,000 thousand) Capital Reserves (\$20,000 thousand)

Contributing Services: None

Operating Impact: None
