

# Streets

Led by: Director of Mobility

## Service Description

Our streets connect people and places throughout Calgary. We drive, walk, cycle and ride every day to and from work or school, for social or recreational activities, and to move goods and services. Streets provide critical access for emergency services and rights-of-way for all underground and overhead utilities. We provide space for on-street parking which supports businesses and residential users. We also support The City's efforts to reduce greenhouse gas emissions.

Streets are Calgary's most abundant public space, and we support nearly every service The City of Calgary provides to Calgarians.

## Service Updates

### Key Service Results

#### Awards

Consulting Engineers of Alberta Award of Excellence for Transportation Structures

Service activities included project planning, design, construction, operations & maintenance, risk assessments, community engagements, safety campaigns, innovative initiatives, and environmental considerations to enable the movement of people and goods. The Spring Clean-Up program swept debris off more than 16,000 km of paved lanes and the Paving Program paved more than 150 locations. Over 33,000 potholes were repaired in 2023 due to continuous freeze and thaw cycles, in comparison with approximately 16,000 potholes repaired in 2022. Other service accomplishments include implementation of the popular Seasonal Patio Program, critical streetlight pole replacements, mobility and detour support for transit-related construction and closures, and supporting the completion of slope remediation design.

Ongoing and completed major mobility construction work include 17 Ave SW Phase 2 and 144 Ave NW projects, completion of Banff Trail Area Improvements, completion of the downtown flood barrier and public realm improvements. Innovative enhancements also included the use of ground penetrating radar equipment and implementation of an artificial intelligence adaptive signal system.

### Service Challenges

When maintenance work is scheduled, street infrastructure such as roads and bridges may require closures and detours, and the disruption to service availability for impacted areas can be challenging. The service also faced challenges pertaining to streetlight maintenance service level agreement response times, acquiring adequate funding and resources to provide service for a continually growing network, and changes to internal processes due to the organizational realignment. These challenges impact other processes and construction projects in terms of coordination and consistency.

Projects with dependencies on other projects or other criteria presented complexities regarding scope and increased the lead times required for construction planning, procurement, and project delivery. Other service challenges included difficulties procuring materials and equipment due to inflation, increased material & construction costs, supplier availability, and contractor availability.

### Trends & Potential Uncertainties

Material, equipment, and general procurement delays continue to present uncertainties regarding project commencement and could cause delays during construction. Inadequate funding and potential budget adjustments could impact operations and delay major rehabilitation projects into the next budget cycle. Traffic detour arrangements could delay projects and project priority conflicts may arise. There are higher service level and communication expectations from Calgarians. Changes to traffic control procedures also trends towards creating strains on industry resources, impact project schedules and increase costs. Additionally, project scheduling uncertainties are impacting timelines and deliverables that involve third-party utilities (e.g., utility adjustments, crossing agreements, etc.).



# Measuring Our Performance

## Legend

— Actuals

■ Expected Future Performance

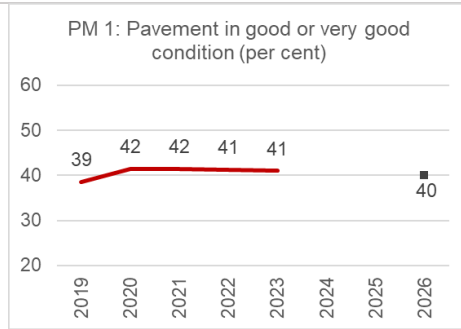
→ Progressing as planned

⊖ Not progressing as planned

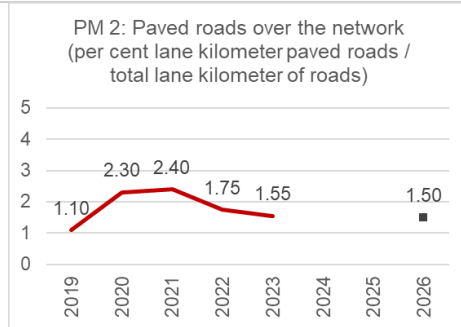
## Performance Measures

## Story behind the numbers

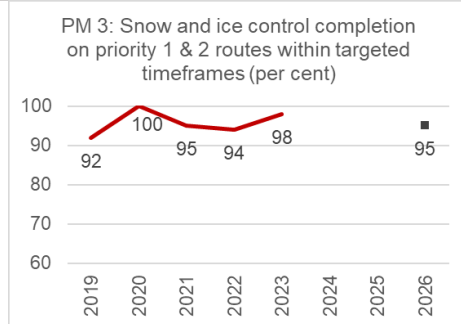
## Status



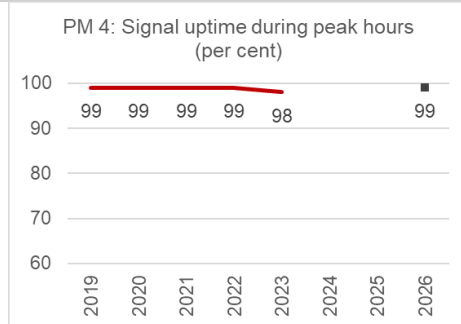
Total spending on pavement rehabilitation in 2023 was approximately \$51 million to maintain Calgary's roads at a forecasted network condition of 41%. Road network condition assessments and data updates are ongoing. Overall pavement condition improves through continual infrastructure investments.



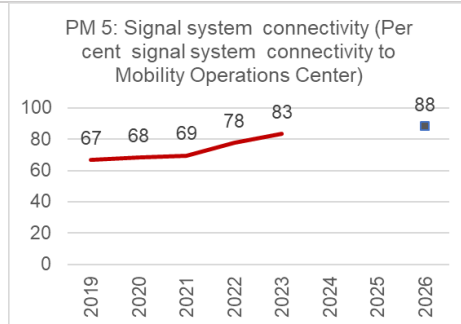
This value is the percentage of yearly road lane kilometres paved compared to the total lane kilometres of roads in the city. Paving activities occur annually from June to October. The quantity of paving that occurs is impacted by weather. In 2023, paving crews paved 265 lane kilometres at over 150 locations. The total road network expanded to 17,068 lane kilometres.



Snow and ice clearing performance expectations for the 2022/23 winter season were achieved. Timely response times occurred for snow events where weather temperatures were not extreme. Performance is recorded annually at the start of the winter season for the previous year to adopt measure consistency. It is anticipated that the upcoming Winter Maintenance Policy approval and service response trials will support achieving expected performance values in future years.

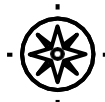


Traffic signals are crucial for ensuring safe and efficient traffic management at intersections in the road network. Proper functioning of signals enhances the safe interaction for road network users. The traffic signal uptime performance measure indicates the connectivity of signals to the traffic control system. In the first half of 2023, several issues, such as information technology downtime, flash flooding and storm damage to equipment, affected signal uptime. However, these issues were resolved, and signal uptime performance remains high.



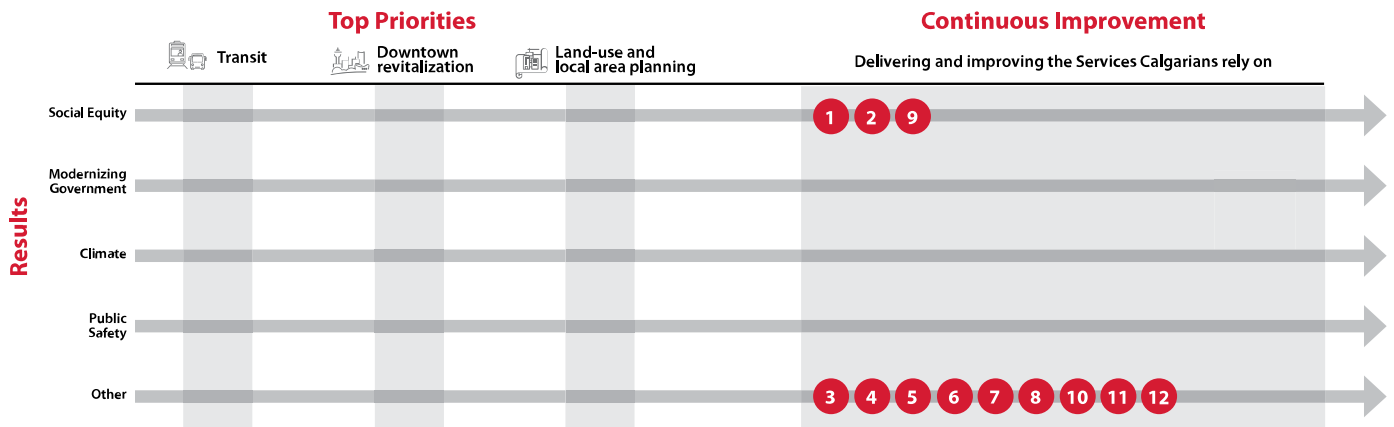
This metric measures the proportion of traffic signals connected to the Mobility Operations Centre for efficient traffic monitoring and incident management. The City currently oversees approximately 1,200 traffic signals. Communication capabilities are being installed in traffic signals that do not have these capabilities. When new traffic signals are installed, communication capabilities are simultaneously added to ensure a synchronized increase in the percentage of signals connected to the operations centre. In 2023, 123 new signal system communication connections were established.





# Progress on Service Delivery

## Alignment with Council Refined Priorities and Result Areas



- Legend**
- Completed
  - Progressing as planned
  - Not progressing as planned
  - Not started
  - Initiative number

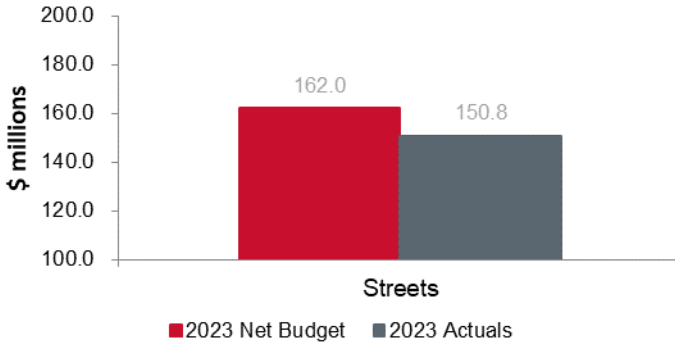
Initiative	Initiative Update	Status
1 Enhance safety and accessibility of the mobility network by promoting safety-related processes, procedures and communication, and by installing ramps and related infrastructure.	Wheelchair ramp installations continued in 2023 to enhance safety and accessibility. Dynamic messaging boards were also used to communicate road information and support the safe use of roadways.	
2 Maintain safe workspaces while delivering services to Calgarians by establishing employee safety enhancements to support staff with safety meetings, and techniques and guidelines for incorporating safety-based awareness and thinking in day-to-day tasks and activities.	The Mobility Safety Implementation Team and Joint Worksite Health and Safety Committee each meet regularly to advance safety and prioritize issues. Safety support is provided through safety advisors, monthly safety bulletins and other safety communications throughout the year.	
3 Promote actions that encourage transportation mode changes such as from driving to walking or the use of transit and vice-versa through participation in transportation mode projects, activities and collaborations with other workgroups or partners.	Over 1,000 locations were scheduled for transportation data collection in 2023 for data collection. The collected data is analyzed for trends impacting pedestrians, cyclists, and vehicle usage on the transportation network. The work involved manual data collection by seasonal data crews and data collected automatically through embedded data collection equipment.	
4 Expand employee training, awareness and learning opportunities regarding respect in the workplace, diversity and inclusion, and code of conduct through encouraged participation in City-specific learning and development programs, team communications, internal courses and employee-centered discussions.	Required training such as respectful workplace and code of conduct training has been completed. Additional opportunities for employee training and participation were also available throughout the year.	
5 Enable opportunities for positive economic and environmental impacts by determining strategies and mechanisms to reduce travel hours within specified or peak travel periods.	Signal timings were optimized to maintain or enhance traffic flow, especially during peak hours or where road incidents introduce hazards or delays on segments of the network. Adaptive signal control initiatives to improve signal efficiency were also implemented at 36 Ave & Glenmore Trail.	

Initiative	Initiative Update	Status
6 Minimize construction costs and interruptions to the public or to traffic flows through enhanced or continued engagement, collaboration and coordination with internal and external groups.	Project teams are adapting to the realigned organizational structure and using early planning and engagement strategies to enable efficiencies with both internal and external project-related workgroups.	
7 Improve work efficiency, lower costs, generate savings and maintain or improve levels of service and overall service delivery by researching, exploring and implementing technologies that provide efficiencies and solutions.	Various work efficiencies aimed at lowering costs, enhancing environmental sustainability, and improving service levels were explored and implemented, including ground compaction projects and the adoption of pre-washed aluminum material.	
8 Provide longer lasting roadway results and less invasive roadway repair activities by utilizing efficient roadway-associated repair and rehabilitation methods such as narrow trenching for utility work and durable pothole repair patches.	Over 33,000 potholes were repaired in 2023 and alternative pothole repair materials were explored. Warm Mix Asphalt (WMA) for roadway paving also presented a viable alternative to the use of typical asphalt. About 22,000 tons of WMA was used, which is approximately a 20% reduction in temperatures normally used with typical asphalt mixes.	
9 Maximize the useful life of roadway assets by continually monitoring and managing asset lifecycles, planning for timely maintenance, making the best use of resources, proactively procuring materials and implementing efficient asset rehabilitation and replacement activities.	Lifecycle planning continues for mobility assets. Asset condition, levels of service and replacement costs are also used to establish baselines and track investment needs. Long-term asset management planning is communicated to optimize the useful life of infrastructure and support asset maintenance, rehabilitation, and replacement.	
10 Eliminate or minimize procurement-related disruptions by continuing to work with Supply Management and other internal teams/resources, and external groups and partners including contractors, vendors and consultants to conduct procurement in a timely manner.	Project teams emphasized collaboration and communication to avoid procurement disruptions and delays. Processes such as the new centralized vehicle and equipment coordination model were also established with procurement partners.	
11 Enable appropriate adjustments as a result of emerging trends regarding the use of streets by engaging and working with various groups to better understand and incorporate transportation data and street-use feedback.	Travel trends and insight was achieved through consistent data collection by mobility data collection teams. A travel log survey was used to gather data from Calgarians regarding how they move through the network.	
12 Eliminate work duplications and maximize efficiencies with other workgroups by exploring other channels of efficiencies related to working with colleagues and partners, to develop strategies and achieve common goals.	As new organizational structures were established through organizational realignment, workgroups established team norms and explored enhanced processes to introduce or improve efficiency. Examples include procurement processes and centralized vehicle and equipment training models.	



## Service Updates on Financial Performance

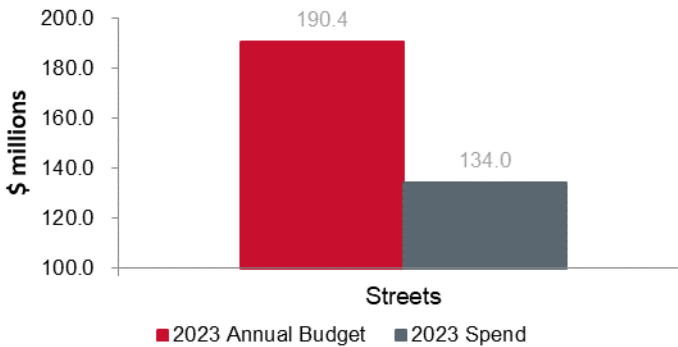
**Net Operating Budget and Actuals  
as of December 31, 2023**



**Operating Budget Updates - 2023 net operating budget vs actuals:**

The streets service's operating financial spending was \$11.2 million less than budget. Winter operational expenses were below budget mainly due to mild weather conditions. Lower spending occurred in the service's operations due to reduced contract work for signals construction and signs, and there were higher costs for vehicle and equipment, asphalt for surface overlay, and aggregate materials. Favourable revenue from plant sales, degradation fees, and the Community Aggregate Payment (CAP) levy was offset by lower parking enforcement revenue attached to the Spring Clean-up program.

**Capital Budget and Spend as of December  
31, 2023**



**Capital Budget Updates - 2023 total capital budget vs 2023 spend:**

The streets service capital spend rate was 70.4 per cent as of December 31, 2023. Ongoing investments and deliverables include Stoney Trail improvements at 11 Street NE Interchange and 80 Ave Flyover, 144 Ave NW Improvements at West Nose Creek, streetlight upgrades including the replacement of 1,200 critical poles, major bridge rehabilitation and repairs, traffic signal replacements and pedestrian Rectangular Rapid Flashing Beacon installations. Sixteen lifecycle projects were completed for traffic signals. However, changes in the signal construction industry and unavailability of contractors impacted program spending and caused project delays.

In accordance with the Calgary Safer Mobility Plan and ongoing safety improvements, capital budget spending included permanent curb extension projects, smart right turns, left turn improvements, and signal projects. The capital program involving property acquisition for future projects experienced delays due to ongoing land negotiations. Pavement rehabilitation projects were also postponed to 2024 due to challenges related to supply processes and traffic detours. Plus 15 bridge accessibility improvements were completed at 26 locations, and service monitoring continues for procurement, project schedules, and contractor capacity.