



Funicular Year-in-Review
2020

Edmonton

edmonton.ca/funicular

TABLE OF CONTENTS

1. Introduction	PG 3
2. Usage	PG 3
3. Operations	PG 5
4. Incident Response	PG 5
5. Outages and Shutdowns	PG 7
6. Public Engagement	PG 10
7. Next Steps	PG 10

INTRODUCTION

2020 was the third full year of operation for the 100 Street Funicular, which opened to the public on December 7, 2017. Since opening, the funicular has increased access to the River Valley for Edmontonians and visitors and has created a landmark and connection between downtown and the River Valley. While the funicular is the prominent feature of the site, there are also stairs, viewpoints, a pedestrian bridge, artwork, wayfinding and interpretive signage and an elevator.

This annual report provides information related to operations, costs and usage during 2020.



USAGE

The funicular has proven to be a popular destination, with site observations and user feedback all indicating it is heavily used throughout the day. Indicators of the popularity of the funicular are identified below.

In 2020, the funicular made a total of 70,553 trips, either up or down the track. Since opening, the total number of trips the funicular has made is 300,028.

A new, permanent, pedestrian counter was installed on the promenade on May 5, 2020. This replaced the temporary pedestrian counter that had been at the site since June 5, 2019. The data from the two counters were merged to provide a total data set.

- For the 2020 operational year, data obtained from Jan 1 - Dec 31, 2020 showed:
 - A total of 199,355 counts were registered (141,412 weekday / 57,943 weekend)
 - The daily average over the year was 544 counts and the peak day was August 21 with 1,833 counts
 - Highest monthly count was August at 29,389 and the lowest monthly count was December at 9,086
 - Use of the site outside of park hours (11pm-5am) remains minimal
 - Site counts increase on weekdays around 8am, 12pm and 4pm. On weekends, the site is busiest between 1-4pm.
 - From March 16 - June 15 the Funicular was closed due to pandemic restrictions. During this period the site was still highly utilized with a total of 41,256 counts, a daily average of 448 counts and a peak day of 910 counts on May 24.

A year-over-year comparison can be completed for data collected between the periods of June 5 - Dec 31, 2019 and June 5 - Dec 31, 2020. Analysis of data shows:

	June 5 - Dec 31, 2019	June 5 - Dec 31, 2020
Total Counts	218,965	134,630
Total Weekday Counts	150,435	93,199
Total Weekend Counts	68,530	41,431
Daily Average	1,042	641
Highest Monthly Count	49,423 (August)	29,389 (August)
Lowest Monthly Count	12,340 (December)	9,086 (December)
Highest Weekly Count	11,992 (Week of July 29)	8,189 (Week of July 27)
Lowest Weekly Count	2, 129 (Week of Dec 9)	1,440 (Week of Dec 14)

The decrease in 2020 counts can be attributed to the impacts of the COVID-19 pandemic:

- Fewer people working downtown reduced commuter and weekday use,

- The funicular was closed by provincial order for 3 months (March 16 - June 15),
- There may have been a lower comfort level of using an 'indoor' space/amenity.

OPERATIONS

The funicular is open daily between 7 am and 9 pm which generally aligns with other amenities in the River Valley. The stairs, bridge, lookout and park space are open during park hours, between 5 am to 11 pm. In 2020, the hours of operation were reduced for Christmas Day and Boxing Day.



INCIDENT RESPONSE

The funicular has three types of response procedures. One for the funicular itself, one for the elevator and one for the rest of the site. The elevator and site procedures are similar to others around the city. The funicular procedures are unique and require City staff to respond to all funicular alarms to troubleshoot and resolve issues related to system failures, door malfunctions and mistakenly pressing the emergency stop button. In all procedures, 911 is

contacted if there are any emergencies. The 2020 monthly alarm counts are summarized below with comparisons to the previous two years.

Month	Funicular System Failures		Funicular Emergency Stops		Funicular Door/Wind/Overload		Elevator Emergency		Site Emergency	
	2020	2018/2019	2020	2018/2019	2020	2018/2019	2020	2018/2019	2020	2018/2019
January	11	25/8	3	24/3	0	6/7	1	1/0	0	0/0
February	3	20/17	0	13/1	2	10/4	0	2/0	1	0/0
March	1	12/27	2	25/1	0	4/0	0	5/0	0	0/0
April	0	7/28	0	30/4	0	7/1	0	2/0	0	0/1
May	0	4/6	0	56/6	0	4/8	0	0/0	0	0/1
June	1	1/0	0	33/5	1	1/11	0	0/0	1	1/0
July	14	6/5	2	38/4	0	8/5	0	0/0	0	0/0
August	5	5/15	5	23/3	1	10/0	0	0/0	0	0/0
September	4	7/8	1	25/2	0	24/0	0	2/0	0	0/0
October	3	15/5	1	31/4	0	15/4	0	2/0	0	0/1
November	4	2/5	0	8/3	0	9/0	0	4/0	0	0/0
December	3	3/8	2	1/3	0	1/2	1	0/0	0	0/0
TOTAL	49	107 / 132	16	307 / 39	4	99 / 42	2	18 / 0	2	1 / 3

Staff responded to approximately 73 alarms in 2020

- Only 4 alarms were a result of door malfunctions, heavy winds or overloading. Continued improvements to the door systems have helped reduce the number of door alarms dramatically since opening. Door alarms/incidents result in temporary stoppages until the issue can be investigated and resolved.
- 22% of alarms were a result of users pressing the emergency stop button. These incidents result in temporary stoppages until the system can be reset. There has been a continued decrease in emergency stop button incidents since opening as users

have become more familiar with the funicular's operation. Additionally, the emergency buttons have been better secured to deter accidental pressing of the button.

- 68% of alarms were system failure alarms which include a wide variety of possible issues that the system detects. Some incidents cause a temporary stoppage of the funicular, and some incidents do not. The proportionately higher number of alarms in July were a result of a computer module that required replacement. Overall, there was a noted decrease in the number of system failure alarms in 2020, likely attributable to the reduced usage observed over the year.

The continued decline in alarm frequency is attributed to:

- Increased user knowledge and familiarity with the system is resulting in fewer user errors.
- Continuous improvement of the infrastructure and computer systems.
- Emergency stop button modifications, including a cover to prevent patrons from playing or accidentally pressing.
- Improvement in reporting and diagnostic practices for more efficient response and issues resolution.
- Decreased usage in 2020 due to the COVID-19 pandemic.

OUTAGES AND SHUTDOWNS

Planned Maintenance

To meet regulatory requirements specified by Alberta Elevating Devices & Amusement Rides Safety Association (AEDARSA), the City is required to follow a rigorous preventative maintenance and inspection process. This requires a monthly eight-hour shutdown and an annual three-day shutdown. Overall, planned maintenance activities resulted in service disruptions for eight or more hours on 9 days in 2020.

COVID-19 Shutdown

On March 17, 2020, the City received a provincial order requiring the shutdown of the funicular due to the COVID-19 pandemic. This order remained in effect until May 13, 2020, when it was rescinded by the Province. In alignment with the City's relaunch efforts, the Funicular reopened on June 15, 2020.

Unplanned Maintenance

There were additional unplanned maintenance and repair requirements that occurred throughout the year. This resulted in some additional service disruptions of four hours or more seven times in 2020 as outlined below.

Date	Issue	Length of Service Disruption
February 16	System Failure	5 hours
June 22	Vandalism - cabin glass	8 days
August 13	Battery issue	5 hours
August 23	Door failure	7 hours
September 11	Vandalism - cabin glass	5 days
November 27	Vandalism - lower platform door	3 days

Operational Costs

The 2020 operating costs for the 100 Street Funicular and surrounding site were \$531,602, excluding snow removal costs which were not available for this report. The original forecasted annual operating budget for the Mechanized River Valley Access project was a range of 2 to 4% of the total project cost or \$480,000 to \$960,000 annually. The 2020 operating costs remain in this forecasted range, at 2.2% of the original project budget.

Following the COVID-19 pandemic closure, increased incidents of general disorder were identified on site. This included high levels of graffiti, individuals occupying the site overnight and evidence of drug use on site. Shortly after reopening, the funicular was extensively damaged when an individual smashed the glass panes of the cabin. In response to these issues, enhanced security was added to the site, including overnight security guards, added peace office patrols, and support from EPS. This service was in place July - September, then was restarted again in November.

City Team	Item	2018	2019	2020
Facility Maintenance Services	Preventative Maintenance and Daily Start Up	\$345,483	\$367,815	\$328,322
	Corrective Maintenance	\$5,154	\$4,357	\$119
	Emergency Breakdown Response and Repair	\$59,054	\$23,085	\$29,167
	Non-emergency Breakdown Response and Repair	\$112,641	\$26,687	\$45,739
	Other maintenance, support, modifications	\$8,054	\$0	\$909
	Elevator Maintenance Costs	\$12,927	\$8,818	\$51,096
	Custodial Services	\$31,186	\$41,767	\$20,635
River Valley Parks and Facilities	Site services and monitoring	\$90,117	\$31,369	\$19,816
	Security guard support	\$6,536	\$3,663	\$23,186
	Utilities	\$11,199	\$20,623	\$12,613
Infrastructure Operations	Snow Clearing	\$34,118	\$53,340	- *
	Horticulture, turf, tree maintenance**	\$0	\$0	\$0
TOTAL		\$716,468	\$581,524	-
Adjusted Total (snow clearing removed)		\$682,350	\$528,184	\$531,602

* due to a reporting change, this figure is unavailable for 2020

** landscape elements were under covered through maintenance/warranty period until August 2020

PUBLIC ENGAGEMENT

The City has continued collecting and listening to the public's feedback on their funicular experiences via 311 and social media.

311 Inquiries

In 2020, 311 received 36 comments that were forwarded to business areas for follow up. The nature of these calls can be summarized below:

- 22% reported vandalism or damage on site.
- 23% were general inquiries about the site.

- 55% provided general feedback regarding their experiences, both positive and negative.



Social Media

The funicular continues to be a popular Edmonton landmark on social media. In 2020, funicular posts generated 36,028 impressions on Twitter. There were no Facebook posts. Citizens and tourists continued sharing their experience using #yegfunicular. Throughout 2020, we continued raising awareness of the online notification tool as a way to stay updated on the funicular and any expected and unexpected outages and shutdowns.

NEXT STEPS

Over the next year, City staff will continue to proactively manage the funicular by seeking operational efficiencies and internal process improvements.