

GATINEAU

POUR

LA

VIE

U HACK

A digital Outaouais

2024 Edition



April 26, 27 and 28, 2024



UQO (Alexandre-Taché building)



Potholes

A pothole is a **collapse** in the roadway that forms when the asphalt crumbles and the fill material disperses.

This phenomenon occurs mainly in spring, when the ground freezes and thaws.





Example of an
extreme pothole

The team behind the reparation of approximately **60,000 potholes** at the City of Gatineau

GATINEAU

POUR

LA

VIE

- Nearly 3,000 km of paved roads.
- 2-person team / 40 potholes per day (5 permanent teams).
- Support, contract to an external firm.
- Support from snow removal crews (during the summer).
- Every year, Gatineau repairs close to 60,000 potholes.

GATINEAU

POUR

LA

VIE

The Report Process

There are **three ways** to report a pothole to the city.

Reporting method **#1**

Call 311

GATINEAU

POUR

LA

VIE



Reporting method **#2**

Submit a 311 request online



* The fields marked by an asterisk must be filled out. This information is required in case we need to contact you or confirm your request number.

* You are:

- ☒ Citizen of Gatineau
- ☐ Business or organization (e.g.: business, school establishment, organization, etc.)
- ☐ Other (e.g.: non-resident, outside of Gatineau)

Your information

* First name:

* Last name:

* Address:

<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------

[Link to the Page](#)

Reporting method **#3**

Fill out a form on Citizen Portal - City of Gatineau

GATINEAU

POUR

LA

VIE

The screenshot shows a web browser window with the URL <https://portailcitoyen.gatineau.ca/pc/Portail/index#>. The page is titled "Requêtes 311" and features a sidebar with the "Ville de Gatineau" logo. The main content area has two tabs: "MES REQUÊTES 311" and "SOUMETTRE UNE REQUÊTE 311". Below the tabs, there are three dropdown menus for "Type de requête et sujet", "Type de requête", and "Sujet", each with a red exclamation mark icon. Below these is a dropdown menu for "Emplacement de la requête" with a red exclamation mark icon. At the bottom, there is a section for "Pièces jointes" with a button labeled "Ajouter des images ou des documents".

[Link to the Portal](#)



Processing the Request : Assignment and Repair

Priority for repairing reported potholes is given according to :

- The following order: **main arteries** and **collector streets**, followed by **local streets**.
- **Size** of reported potholes.
- Potholes deemed **unsafe** are repaired within **72 hours** of being reported.

A single pothole can take **10-15 minutes** to repair.

The Key Issues

Current main challenges include:

- Ensuring greater ease in **preventing** and **repairing** potholes;
- Reduce **repair costs**;
- **Intervene** as soon as possible;
- **Follow-up** on reports and repairs;
- Identify **optimal repair routes**;
- **Increase** the number of pothole **reports** using technology.

Suggestions for Upcoming Functionalities

GATINEAU

POUR

LA

VIE

Functionality	Components
Report Process	<ul style="list-style-type: none">• Identification of the pothole: photos or videos, GPS coordinates, etc.• Identify who is making the request: cars, motorists, drones, accelerometers, pedestrians, cyclists...• Grouping of identical reports• Issuing a request• Assess criticality of request: main arteries and collector streets, followed by local streets
Planning of Operations	<ul style="list-style-type: none">• Prevention interventions• Repair interventions• Intervention to monitor, follow-up or complement• Route optimization.

Suggestions for Upcoming Functionalities

GATINEAU

POUR

LA

VIE

Functionality	Components
Management of repair teams	<ul style="list-style-type: none">• La composition des équipes• Le nombre d'équipe et leur disponibilité• Les équipes saisonnières• Les équipes externes
Management of the material	<ul style="list-style-type: none">• Stock status of the main materials used in repairs• Alert
The Repair	<ul style="list-style-type: none">• Planning of repair order• Assignment of repairs to a team, including lead times
The Communications	<ul style="list-style-type: none">• Notification to requestor of completion of repair and closure of request

Tools

1. Open Data
2. Google Maps
3. Artificial Intelligence
4. Drones
5. Dash Cams
6. Accelerometers
7. Predictions (using an infrared thermometer for asphalt, for example)
8. Other

GATINEAU

POUR

LA

VIE

A Few References

Links to Consult

GATINEAU

POUR

LA

VIE

1. [Open Data](#)
2. [Pothole Detection - viso.ai](#)
3. [Data Quebec](#)
4. [Strategy for integrating artificial intelligence into public administration](#)
5. [The societal impact of artificial intelligence on democracy, the environment and the arts and culture](#)
6. [Guide on the use of generative AI](#)
7. [Artificial Intelligence and Data Act](#)
8. [FOCUS \(focus511.com\)](#)
9. [Potholes - City of Gatineau](#)
10. [Richmond Hill Embraces Innovation to Modernize Government Operations](#)
11. [Strategic Plan - City of Gatineau](#)
12. [Statistical and geomatic data \(Infoterritoire\) - City of Gatineau](#)