



Open311 GeoReport v2
City of Ottawa Developer
Documentation

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1 About

The City of Ottawa supports the use of the Open311 GeoReport v2 standard. Information on Open311 can be found at [Open311.org](https://open311.org) and the [Open311 GeoReport v2 Specification Wiki](#). The following documentation is intended to support developers in working with this specification by describing what aspects of the specification are and are not supported, as well some specific nuances to this API specification for the City of Ottawa.

Select Service Requests of the following types are currently available:

- Solid Waste
- Roads Maintenance
- Graffiti
- By-law
- Parks and Forestry
- Parking
- Street lighting

2 Development Process

Applications that are built using the Open311 GeoReport v2 Standard for the City of Ottawa should be tested using the following:

- <https://city-of-ottawa-dev.apigee.net/open311/v2>
- <https://city-of-ottawa-dev.apigee.net/gis/v1>

Note that the test API does not create cases in a back-end system and should be used to test API responses only.

A test key is available for the development POST service for those that do not have a production key. Use this key: upxH1uGMCboY3qrXKGRmKWdYaxhaGiDr

- Key holders (or developers) must notify SOWeb@ottawa.ca of their testing plan (date and time, service requests to be submitted)
- SOWeb@ottawa.ca will confirm the plan is approved
- Key holders are to use the following values in their test cases:
 - First name: Test
 - Last Name: Test
 - Client address id: __9BQ1OJ
 - Address: 100 CONSTELLATION DR, NEPEAN K2G6J8
 - Telephone: 6135802424
 - Email: testing@ottawa.ca
 - Description: Test case please close
- Key holders are to notify SOWeb@ottawa.ca when the cases have been successfully submitted.

There should be no testing in production. All parameters and application features should be tested in dev before requesting a key and going live. However, if there is a specific reason where a testing needs

to be done in production such as a landing test, please indicate 'TEST-IGNORE' in the case description, and send us the case number to soweb@ottawa.ca so that we can delete it from the system.

In order to secure the City's back-end systems, applications will require the use of an API key for every request in production. In order to obtain an API key, visit <https://ottawa.ca/en/open311-api-key-registration-form>.

When applications are ready for production, they should use the following:

- <https://city-of-ottawa-prod.apigee.net/open311/v2/>
- <https://city-of-ottawa-prod.apigee.net/gis/v1/>

3 Application Requirements

To ensure the delivery of City services and to promote a positive experience for users of third party applications the City requires that developers meet certain mandatory requirements. Access privileges to API services and Data are granted at the sole discretion of the City and may be restricted or terminated at any time as per the Terms of Service.

3.1 Mandatory developer requirements

- Third party applications must disclose their privacy statement to users.
- In order to obtain an API key, Developers must provide their contact information. The City reserves the right to share and/or publish this information and will divert all inquiries about third party applications to the developer.
- Applications must submit the client/reporters contact information, including name, address, and email address to the City, where this information is mandatory. Any applications found to be submitting values that were not collected from the user, e.g. default contact information, will have their API key revoked.
- The use City of Ottawa trademarks, including logos, etc. is strictly prohibited.

3.2 Recommended developer requirements

- Applications should use the Statuses provided by the City when tracking service requests
- Applications should consider both French and English user interfaces
- Applications should consider Accessibility in interface design, including the guidelines provided by the W3C (WCAG AA).
- In order to ensure traceability for users who follow-up on their service request with the City directly, applications should provide the service request ID issued by the City to users. This does not preclude application from providing the user with it's own tracking number in addition to the City's service request ID.

4 Open311 GeoReport v2 Specification and the City of Ottawa

4.1 Service Discovery

The base URL for Service Discovery for the City of Ottawa is as follows:

- <https://city-of-ottawa-dev.apigee.net/open311/v2/discovery.xml>

- <https://city-of-ottawa-dev.apigee.net/open311/v2/discovery.json>

4.2 Format Support

The City of Ottawa supports both XML and JSON formatting.

4.3 Definitions and Miscellany

4.3.1 jurisdiction_id

The City of Ottawa ignores the “jurisdiction_id” parameter.

4.3.2 Language Support

The City of Ottawa supports both official languages in the API; when used, a request header parameter of “Locale” with the value of “en-CA” or “fr-CA” will take precedence over the default “Accept-Language” header. If the “Locale” request header is not present, the portal will fall back to the user’s default “Accept-Language” header; if no header information is present, the Locale will be set to “en-CA.”

4.3.3 Field Sizes

The Open311 GeoReport v2 Specification does not enable the specification of field sizes; however, there are restrictions on field sizes in the back-end business systems that should be adhered to in the development of an application, as follows:

Known fields:

- first_name: 35
- last_name: 40
- email: 60
- description: 2000
- phone: 11 (dashes and parentheses will be stripped; must be a valid North American number)
- media_url: 255
- cde_extension: 6

Attribute fields by type:

- string: 40
- number: 40
- text: 2000
- singlevaluelist: 80
- multivaluelist: 80
- datetime: 25

Note that these field lengths may be subject to change.

4.4 Supported API Methods

4.4.1 GET Service List

This method is supported.

4.4.2 GET Service Definition

This method is supported.

4.4.3 POST Service Request

This method is supported, with the following notes:

4.4.3.1 Address Validation

The City of Ottawa supports all three methods of addressing provided by the Open311 GeoReport v2 Specification (address_id, address_string, and latitude and longitude pairings). The preferred method for service address information is a Latitude and Longitude pair. The next best approach is to provide a valid municipal address id (this applies for service address (address_id) and client addresses (client_address_id or client_address_id_req) as well). Address strings are also supported, however, tend to be more error prone due to discrepancies in user input. Application developers are responsible for ensuring that the addresses that are submitted are valid; to facilitate this, the City of Ottawa offers the use of an addressing web service:

- <https://city-of-ottawa-dev.apigee.net/gis/v1>

To ensure a valid municipal address for either the “address_id,” “client_address_id,” or “client_address_id_req” fields, follow these steps:

1. Enter the following URL (using the user’s address string, example in bold):
[https://city-of-ottawa-dev.apigee.net/gis/v1/findAddressCandidates?SingleLine=**100+Constellation+DR**&outFields=User_fld&f=json](https://city-of-ottawa-dev.apigee.net/gis/v1/findAddressCandidates?SingleLine=100+Constellation+DR&outFields=User_fld&f=json)
2. The response should be as follows (item in bold is the address id):

```
{ "spatialReference": { "wkid": 102100, "latestWkid": 3857 }, "candidates": [ { "address": "100 CONSTELLATION DR", "location": { "x": -8434021.1488476545, "y": 5676573.4154919367, "z": -100000 }, "score": 100, "attributes": { "User_fld": "9BQ1OJ" }, ... (more results may be included) } ] }
```
3. Ensure that the address returned is a proper match for the user input, then use the address id returned by the service (the value in the “User_fld” element) to populate the form field (“address_id”, “client_address_id”, or “client_address_id_req”).

4.4.3.2 Contact Information

Some of the services listed on the City of Ottawa portal require client information, such as contact information and/or personal address. The service definition will identify when this is required. Make note of the following attributes in the service definitions:

- contact_info_req
This will indicate that client contact information (first_name, last_name, phone and email) is required for the service request
- client_address_id_req
This will indicate that a client address id is required for the service request; an address id can be obtained through the address service per the above (section 3.4.3.1).

Failure to provide required information will result in a validation error being sent back to the requesting application.

4.4.4 GET service_request_id from a token

This method is not currently supported.

4.4.5 GET Service Requests

This method is supported, with the following notes:

- Only the Service Request types as defined in the Get Service List method will be available through this method
- A delay of at least five minutes between posting a Service Request and being able to retrieve it through the GET Service Requests method should be expected
- Per the Open311 GeoReport v2 Specification, the default query limit is a span of 90 days or the first 1,000 requests returned, whichever is smallest; this date range may be within the past two (2) years
- The only address information that will be returned is the [Ward information](#) (Ward Name and Number) associated to a Service Address

4.4.6 GET Service Request

This method is supported, with the following notes:

- Only the Service Request types as defined in the Get Service List method will be available through this method
- A delay of at least five minutes between posting a Service Request and being able to retrieve it through the GET Service Request method should be expected
- In addition to the service_request_id required argument, the email address can be provided as an optional argument to return additional address details beyond the Ward information

4.5 Errors

Any input validation error will be returned in the description as:

- **label (field name) error message**

Field names may be returned as a comma-separated list.

4.5.1 XML Example

```
<?xml version="1.0" encoding="utf-8"?>
<errors>
  <error>
    <code>400</code>
    <description>Latitude and Longitude (lat,long) pair is not returning a valid address or
intersection.</description>
  </error>
</errors>
```

4.5.2 JSON Example

```
[{"code":400,"description":"Latitude and Longitude (lat,long) pair is not returning a valid address or intersection."}]
```

5 Contact

If you have any questions regarding the City of Ottawa's Open311 GeoReport v2, please contact SOWeb@ottawa.ca.