



Land Information Ontario

NRVIS/OLIW Data Management Model For
ORN Segment with Address (v.4)

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Additional Information

For more information about this document, please contact Land Information Ontario at (705) 755-1878 or lio@ontario.ca

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Preface

For most of the Ontario Government's geospatial information holdings, successful data management is achieved through the process of documenting data standards. This document summarizes the basic data management requirements for specific Land Information Ontario (LIO) Concrete Class(es).

Several corporate applications are used by LIO to manage, disseminate, protect and make accessible where available, all of the geospatial holdings that reside within the Ontario Land Information Warehouse (OLIW). The major applications are:

- Data Standards Repository (DSR)
- Land Information Data Subscription System (LIDS)
- Land Information Publishing System (LIPS)
- Land Information Security Administration System (LISA)
- LIO Internet Mapping Framework (IMF - includes Web Mapping and Web Feature Services)
- Natural Resources Values Information System (NRVIS) Administration
- Ontario Land Information Directory (OLID)

If the information you are looking for is not found in this document, LIO has a Support Team that can answer additional questions about a Concrete Class. This Support Team uses a **three-tiered support model** to assist clients, described below. When a user/client has a question about the dataset, they will initially contact...

TIER 1

Information Access Helpline

(705) 755-1878 email: ljo@ontario.ca

If the Helpline staff cannot provide assistance, the request will in be passed on to...

TIER 2

***NRVIS Support Helpline**

Contacts provided by Tier-1

If NRVIS Support staff cannot provide assistance, they will consult with the Information Owner (IO), and then get back to the client.

TIER 3

Dataset Information Owner (IO):

Contacts provided by Tier-1 or Tier 2

** Please note that Tier-2 support is intended for datasets that are maintained by the NRVIS Application. OLIW-only dataset enquiries will be fielded directly to the Information Owner (IO) if assistance cannot be provided by Tier-1 support staff.*

Data Analysis Projects are supported by staff with the Ontario Land and Resources Cluster (LRC), GIS Business Solutions Section (GISBSS), GIS Data Services (GDS)

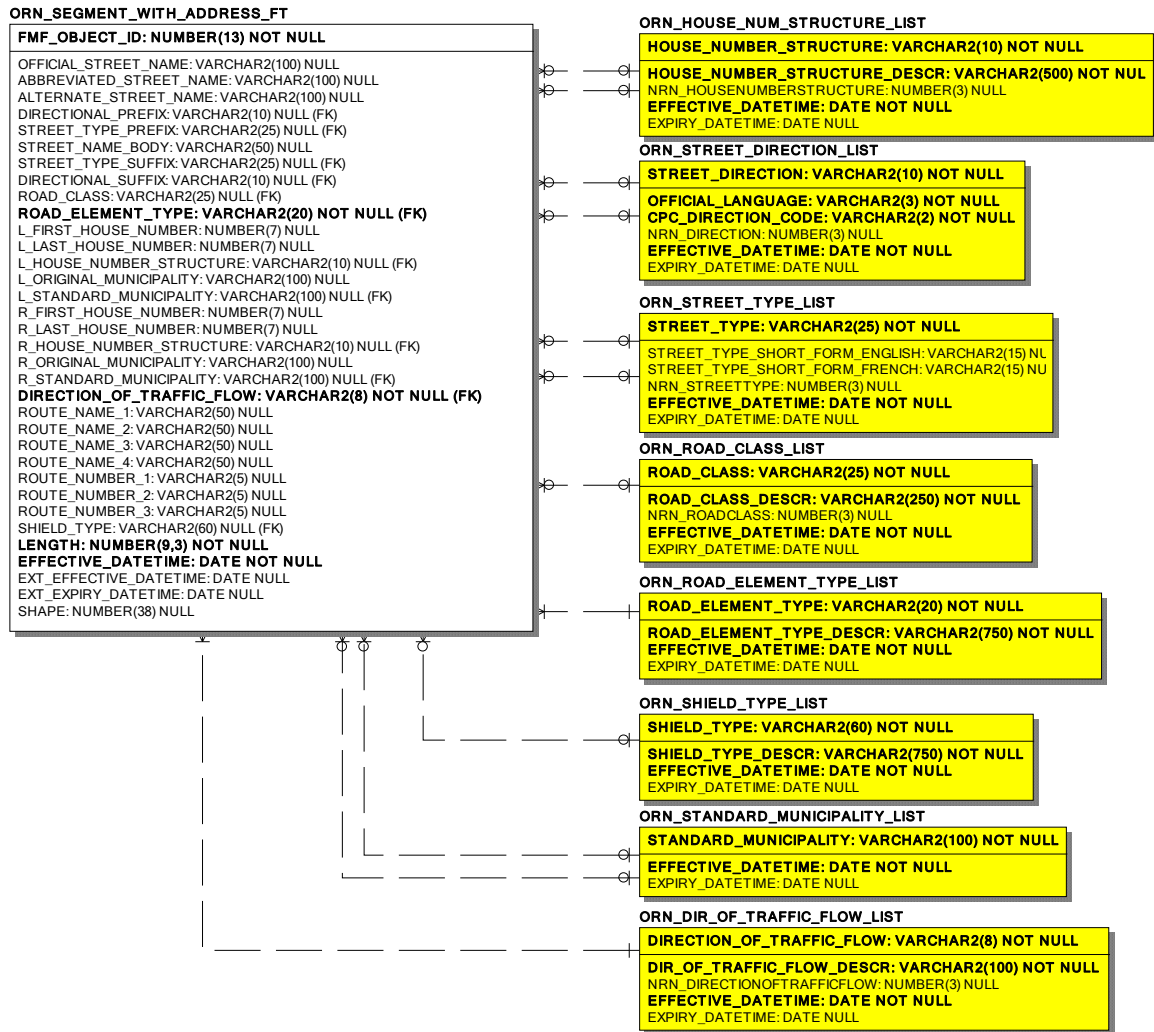
Caveat: The information within this document is relevant to the date it was produced, and may become outdated over time. The Information Owner for this Concrete Class is responsible for updating the OLID metadata record for their information holdings. The reader is encouraged to review the corresponding OLID record to obtain up-to-date information about Concrete Classes. The OLID Metadata record search engine, along with additional information about OLIW itself can be found by visiting their [website](#).

Background and Context

A primer about the concrete class that describes what the information looks like, along with an introduction to the business area (Information Owner) that is responsible with its upkeep. Web links to additional supporting material are provided where applicable.

A geospatial database of the Ontario road network and its associated attributes, e.g. street name, address information, road classification. The segmented version of the ORN is derived from the ORN Linear Reference System (LRS) format and is suitable for routing and context mapping.

Data Class Name: ORN SEGMENT WITH ADDRESS
Data Class Version #: 2
Data Class Shortname: ORNSEGAD
Model Revision Date: 2009-12-16



Information Owner

An Information Owner is responsible for defining the structure, access and upkeep of their business areas' information assets. They are also responsible in communicating with their stakeholder community and to evaluate their business needs. See 'Contacts' section for Director and main business area contact names.

**Ministry of Natural Resources (MNR),
Science and Information Resources Division (SIRD),
Geographic Information Branch (GIB),
Geographic Information Ontario, Base Data Infrastructure**

Status: Established

Concrete Class Details

ORN Segment with Address v.4 (ORNSEGAD)

A geospatial database of the Ontario road network and its associated attributes, e.g. street name, address information, road classification. The segmented version of the ORN is derived from the ORN Linear Reference System (LRS) format and is suitable for routing and context mapping.

Modeling Template: Simple

Simple modeled NRVIS/LIO concrete classes are implemented to be independent from common tables that are normally shared with standard concrete classes.

Target Databases: NRVIS (v3.4) and OLIW (2009)

Sensitivity Classification and Rationale: Non-Sensitive *Roads and their associated attribute data is in the public domain and has been acquired under agreement that the province can disseminate as it sees fit.*

Governance:

Associated Geographic Unit Types

Also known as "GUTS", these represent the next level of a concrete class into subtypes. For example, concrete class 'Nesting Site' has a number of "GUTS" defined by species e.g. "Bald Eagle Nesting Site, "Great Blue Heron Nesting Site" etc. With the nesting site example, separate GUTS were created to better manage and control access to data associated with protected and vulnerable bird species.

Grouped by LRC's Sensitivity Classification, with expired GUTS listed at the end.

Non-Sensitive: GUT Name (number) – Status

Information classified as "Non-Sensitive" normally does not have any access restrictions and can be viewed by anyone, including the general public.

Expired GUTS: GUT Name (number) - Status

GUTS are "expired" or "retired" for various reasons such as lack of use, being considered out of scope for a data class, or when migrated to another data class.

ORN Segmented with Address (10) – Expired *New data type created for the ORN Segment with Address data class.*

A geospatial database of Ontario's road network and its associated attributes, e.g. its street name or road number, its address information, road classification, etc.

The segmented version of the ORN is derived from the ORN Linear Reference System (LRS) format and is suitable for routing and context mapping. The segmented version of the ORN does not differentiate between road elements and ferry connections. They are combined into a feature called road segment.

The segmented version of the ORN is comprised of distinct segments, usually from intersection to intersection, and contains only five attributes:

Street Name
Address Information
Route Identification
Road Classification
Direction of Traffic Flow

Contacts

The following listing identifies staff that helped define all aspects of the concrete class' information requirements and structure.

Contact Last name, First name - Position / Org. / Role(s)

Albertson, Carol Anne - Project Manager, Base Data

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD), Geographic Information Branch (GIB), Geographic Information Ontario, Base Data Infrastructure

Role(s):

Business Area Expert: *ORN Project Manager; Roads Databases, GIS and Project Management*

Publisher: *Responsible for tasking team members to ensure the data is published to the warehouse..*

Gertridge, Dennis - Geographic Information Specialist

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD), Geographic Information Branch (GIB), Geographic Information Ontario, Base Data Infrastructure

Role(s):

Business Area Expert: *Data Expert, produced Segmented product*

Maintenance (Data): *Produces product from the LRS*

Jordan-Cooke, Carla - BDI Manager

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD), Geographic Information Branch (GIB), Geographic Information Ontario, Base Data Infrastructure

Role(s):

Information Owner - Director: *Oversee the project and team*

Millar, William - Base Data Analyst

Ministry of Natural Resources (MNR), Science and Information Resources Division (SIRD), Geographic Information Branch (GIB), Geographic Information Ontario, Base Data Infrastructure

Role(s):

Metadata (OLID): *Past experience with other data classes and base data expertise. Base Data and OLID records specialist for sub-section.*

Business Area Use

Intended Use and Purpose: This product will be used by municipal, provincial and federal agencies, and the public at large who require access to a standardized digital road network but, do not (currently) have the capabilities to use the ORN LRS version.

The ORN is an approved GOITS-29 Information Technology standard. For more information see:

http://www.mgs.gov.on.ca/en/IAandIT/STEL02_047303.html

Business Drivers:

Use Caveats: This product is derived from the ORN LRS version. Each time a change/update is made to the ORN LRS version, the corresponding features in the ORN segmented with Address will be changed/updated.

The spatial and/or tabular components of this data will change regularly.

This ORN Data has been prepared by the Ministry of Natural Resources (the 'Ministry'), representing Her Majesty the Queen in right of Ontario". No warranties or representations, express or implied, statutory or otherwise shall apply or are being made by the Ministry with respect to the documentation, its accuracy or its completeness. In no event will the Ministry be liable or responsible for any lost profits, loss of revenue or earnings, claims by third parties or for any economic, indirect, special, incidental, consequential or exemplary damage resulting from any errors, inaccuracies or omissions in this documentation; and in no event will the Ministry's liability for any such errors, inaccuracies or omissions on any particular claim, proceeding or action, exceed the actual consideration paid by the claimant involved to the Ministry for the materials to which this instructional documentation relates. Save and except for the liability expressly provided for above, the Ministry shall have no obligation, duty or liability whatsoever in contract, tort or otherwise, including any liability or negligence. The limitations, exclusions and disclaimers expressed above shall apply irrespective of the nature of any cause of action, demand or action, including but not limited to breach of contract, negligence, strict liability, tort or any other legal theory, and shall survive any fundamental

breach or breaches.

Geospatial Details

This section describes how the data will be spatially represented.

Default geospatial reference details for all NRVIS/LIOW concrete classes:

Grid or Coordinate System: *Geographic (Lat., Long.)*

Map Projection: *Not Applicable*

Horizontal Datum: *NAD83*

Vertical Datum (z-scale): *Not Applicable*

Vertical Positional Accuracy: *Not Applicable*

NRVIS/OLIW Abstract Class: SPSLINE

Spatial Single-Line: An object is represented by ONE and ONLY ONE line segment. Line segments MUST be continuous. Examples: geological fault lines, roads at a 1: 600,000 scale.

Geographic Extent: Province

Geographic Completeness: ORN segmented data is updated continuously as changes are made to the ORN LRS.

Average Horizontal Positional Accuracy: Within 10 meters

Data Life-Cycle and Maintenance

This section provides details about the data's life-cycle

Load

Responsibility of: Land Information Ontario (LIO) using tools developed by Base Data Infrastructure Section, MNR

Automatically loaded via tools developed by Base Data Infrastructure

Agency Location(s): Province

Frequency: Continuously, each time ORN LRS data is updated

Procedures/Standards:

Tools/Forms/Applications:

Publish

Responsibility of: Land Information Ontario (LIO)

Automatically published

Agency Location(s): Province

Frequency: Continuously

Procedures/Standards:

Tools/Forms/Applications:

Archive

Responsibility of: Land Information Ontario (LIO)

Agency Location(s):

Frequency: Continuously

Procedures/Standards:

Tools/Forms/Applications:

Data Access and Services

This section provides details about the access management to the information stored in this data class. Some of the information documented here governing the scope of access is summarized in the Information Access form that is officially filed with LIO's Information Access Services Section.

Due to the nature and origin of the data stored in Concrete Classes, there are often special rules and considerations that control how the data is to be accessed, used and maintained.

Data Access Use Restrictions/Constraints: No restrictions placed on data access or use.

Data Access Maintenance Restrictions/Constraints: This is a derived product from the ORN LRS version and as such will not be edited.

Web Mapping Services (WMS): Yes

NRVIS Administration Details:

Field Data Capture Form: No

Personal Information Stored: No

Area of Responsibility:

Default NRVIS Access Privileges: TO BE DEFINED

Physical Model

The implemented database physical data model diagram and data dictionary for this data class can be found in the Standard NRVIS Interchange Format (SNIF) report published to the Land Information Ontario [Data in the Warehouse](#) web page.

As with any data class, model modifications may have taken place post-implementation and after the authoring date of this document. For example, tables, relationships, attributes and/or lookup table/domain values and Geographic Unit Types (GUTS) may be added, redefined or removed. The published SNIF reports found on the LIO website will always reflect the latest implemented version of the data class.

Modeling Decision Points

Documents business area and/or physical implementation decision points or recommendations with a rationale that influence how the concrete class is modeled and later implemented. Reviewing these points will often answer questions that may be asked of the model.