



Land Information Ontario

Warehouse Data Class Description
Report:

ORN Segmented with Addresses

Format:
Standard NRVIS Interchange Format (SNIF)

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Introduction

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For more information about this document, please contact Land Information Ontario at (705) 755-1878 or info-access@webmail.mnr.gov.on.ca.

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Using this Report

This report describes the contents and structure of the selected data class package in the format (SNIF) in which data classes are extracted from and published to the Ontario Land Information Warehouse. The purpose of this report is to assist data users in understanding the data received in the SNIF package, as well as to assist data publishers in creating a SNIF package for a single data class.

For a general overview of the SNIF package, refer to the document entitled [What is SNIF?](#) The document entitled *Land Information Ontario Detailed SNIF Subscription Specifications* provides a detailed examination of the SNIF.

This report is meant to be used in conjunction with the *Warehouse Data Class Description Report for Common Tables*. These two reports together fully describe the complete contents of a SNIF package.

Data Class Overview

The Data Class Overview section provides an overall description of the data class, including version. The abstract class refers to the spatial characteristics to which this class conforms.

File List

The File List section lists the mandatory and optional data class tables that are contained within a SNIF package. Tables that are listed as optional may not necessarily be included in a SNIF package. This report only lists the tables that are contained within the SNIF package “spatial” folder. The tables in the “common” folder relate to every data class and are described in a separate *Warehouse Data Class Description Report for Common Tables*.

Product Data Model

The relevant tables for the data class are depicted in diagram form, showing the relationships between the tables. Common tables are not included in the diagram. Their relationships to the geographic unit (GEOG_UNIT) table are depicted in diagram form in the *Warehouse Data Class Description Report for Common Tables*.

Data Class Table Descriptions

This section of the report describes each table associated with the data class. A description of the table is included, along with column names, descriptions, types, and sizes. Columns which are considered mandatory are noted. The abbreviated column names that appear in the shape file itself are also shown.

Valid values are listed for any columns which have a predefined list of possible values. If there are more than six possible values, the first six are shown in the report with the column description. The complete list is shown in the report appendix.

Using this Report - continued

Some data classes are distributed with an enhanced shape file that contains all attributes from tables that are related to the geographic unit table in a one-to-one relationship. These columns are described in the “_DBF_VW” table in this section of the report. Each column description includes the source data class table in which the column exists. For example, the source for the DBF column “NAME” would be noted as AIRPORT_AIRSTRIP.OFFICIAL_NAME. This means that the NAME column is the OFFICIAL_NAME column located in the AIRPORT_AIRSTRIP table.

Appendix

The report appendix includes full listings of permissible values for columns with more than six possible values. Also included is a description of date fields that are included in every table.

Related Documents

[What is SNIF?](#)

[Warehouse Data Class Description Report for Common Tables](#)

[Ministry of Natural Resources Policy for Management of Classified Data in Ontario
Land Information Warehouse](#)

[Land Information Ontario Detailed SNIF Subscription Specifications](#)

[Land Information Ontario Detail SNIF Publication Specifications](#)

Data Class Overview

Data Class: ORN Segmented with Address
Short Name: ORNSEGAD
Version: 1

A standardized, maintained (closest to source) segmented roads data coverage designed to meet the needs of emergency dispatch, for the province of Ontario. It is a derived product of the ORN linear referencing system (LRS) data. In the future, additional versions of ORN segmented data may be developed to meet other user's business needs.

The ORN data is provided by the three main road authorities:
Provincial Highways - Ministry of Transport (MTO)
Resource Roads - Ministry of Natural Resources (MNR)
Municipal Roads - Individual Municipalities

Provision of this data is done via individual license agreements with each road authority. In the case of municipalities, separate agreements are entered into with each municipality. The focus for municipal agreements is at the upper tier level (City, County or Region level). Where this is not practical or feasible, the lower tiers are engaged.

Abstract Class: SPSLINE

Abstract Spatial Single-Line User Object. One and only one node to node arc forms a single object. (This class may not be implemented, as it is probably a rarity in the MNR domain, and it can always be modeled as a particular case of the multi-line abstract user object (class). Detailed Design and functionality should only proceed after a detailed inventory of concrete classes reveals a real need for this abstract class.) An example of a sub class of this class is municipal sewer mains where each node in the network represents an access chamber (manhole) and the municipality tracks and maintains data on each individual chamber to chamber pipe.

File List

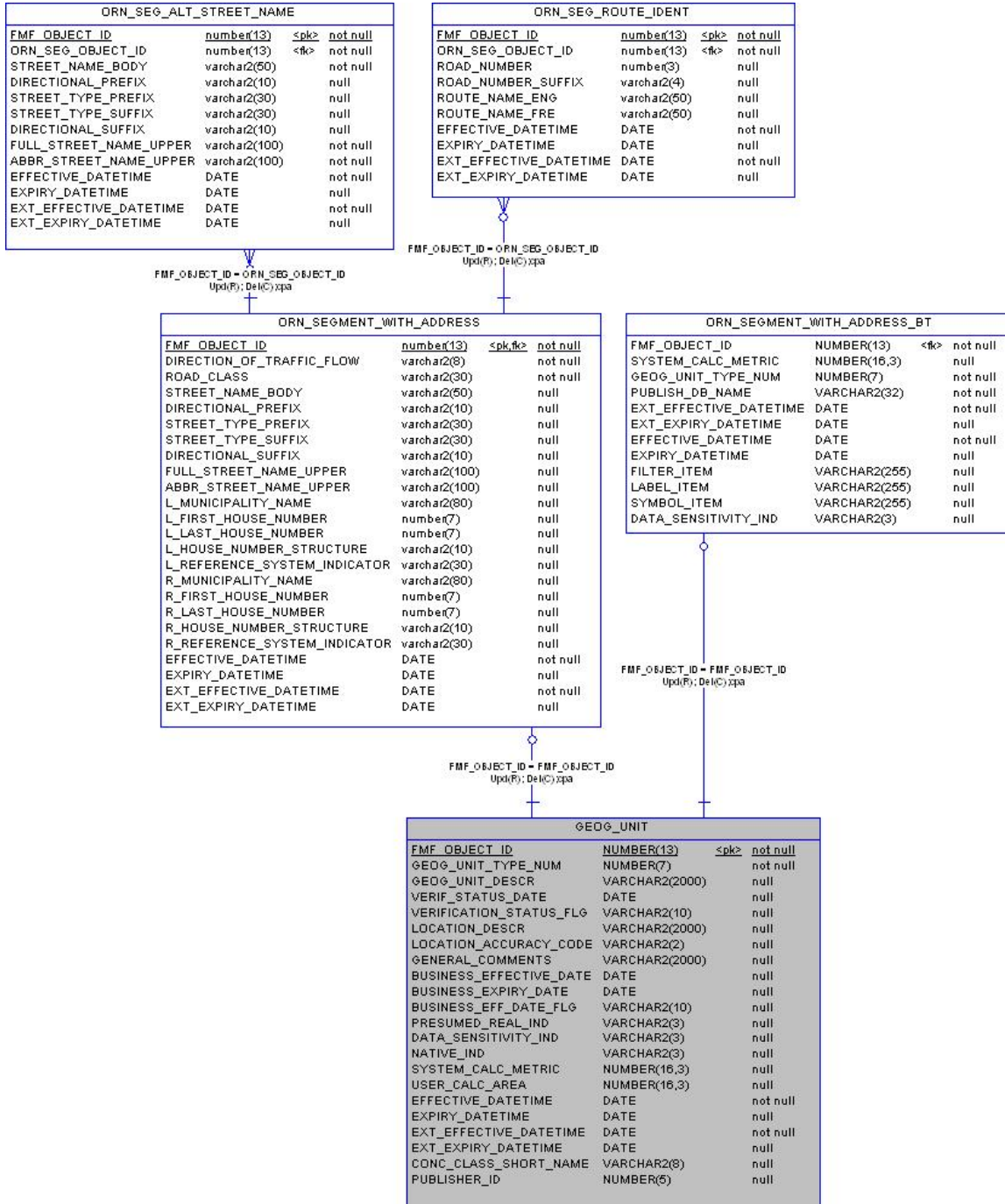
The following list specifies the table files, along with their folder locations and type (mandatory, optional, or lookup), that are included in a SNIF package for this data class, as extracted from the Ontario Land Information Warehouse.

For data publishers, the table files that are not identified as mandatory may be included if the appropriate data is available. Likewise, additional common tables (as described in the *Warehouse Data Class Description Report for Common Tables*) are also identified as optional and may be included if the appropriate data is available. Table files identified as lookup tables provide descriptive values for codes within other tables. These tables do not need to be supplied by data publishers.

Folder and File Name	Mandatory / Type
common\EXTERNAL_REF_TYPE.tbl	(lookup)
common\GEOG_UNIT.tbl	No
common\GEOG_UNIT_AND_JUSTIF.tbl	No
common\GEOG_UNIT_AND_SOURCE.tbl	Yes
common\GEOG_UNIT_AND_SUPP_MATERIAL.tbl	No
common\GEOG_UNIT_DATABASE_REFERENCE.tbl	No
common\GEOG_UNIT_OTHER_INFORMATION.tbl	No
common\GEOG_UNIT_PARTY.tbl	No
common\JUSTIFICATION.tbl	No
common\LOCATION_ACCURACY_LIST.tbl	(lookup)
common\ROLE_TYPE_LIST.tbl	(lookup)
common\SOURCE.tbl	(lookup)
common\SUPPORTING_MATERIAL.tbl	No

Folder and File Name (continued)	Mandatory / Type
spatial\ORNSEGAD\GEOG_UNIT.tbl	Yes
spatial\ORNSEGAD\ORN_SEGMENT_WITH_ADDRESS.tbl	Yes
spatial\ORNSEGAD\ORN_SEG_ALT_STREET_NAME.tbl	No
spatial\ORNSEGAD\ORN_SEG_ROUTE_IDENT.tbl	No
spatial\ORNSEGAD\arc (shapefile)	No

Product Data Model



Data Class Table Descriptions

Table GEOG_UNIT

Desc: Note: The full GEOG_UNIT table is not included here. For the full description, please see the Warehouse Data Class Description Report for Common Tables.

ID	Column Name	Type	Mandatory	Short Name
1	FMF_OBJECT_ID System-generated object identifier, unique at the application level.	NUMBER(13,0)	Yes	OBJECT_ID
3	GEOG_UNIT_TYPE_NUM Identifier of the Geographic Unit Type. Valid Values: 10 ORN Segmented with Address	NUMBER(7,0)	Yes	GUT_NUMBER

Table ORNSEGAD_DBF_VW

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
1	OBJECT_ID System generated identifier, unique at the application level. (Source: ORN_SEGMENT_WITH_ADDRESS.FMF_OBJECT_ID)	NUMBER(13,0)	No	OBJECT_ID
2	DESCR Translated GUT_NUMBER.	VARCHAR2(75)	No	DESCR
3	GUT_NUMBER Identifier of the Geographic Unit Type. (Source: GEOG_UNIT.GEOG_UNIT_TYPE_NUM)	NUMBER(7,0)	No	GUT_NUMBER
4	LABEL Label for identifying the feature.	VARCHAR2(100)	No	LABEL
5	DIR_FLOW The direction(s) of traffic flow allowed on an ORN road segment. Options are: Both - Traffic is allowed in both directions Positive - Traffic is in the same direction as the geometry or, Negative - Traffic is opposite to the direction of the geometry. All ORN road segments must have a direction of traffic flow assigned. Traffic refers to vehicular or motor vehicles only. (Source: ORN_SEGMENT_WITH_ADDRESS.DIRECTION_OF_TRAFFIC_FLOW)	VARCHAR2(8)	No	DIR_FLOW

Table ORNSEGAD_DBF_VW (continued)

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
6	NAT_CLASS	VARCHAR2(30)	No	NAT_CLASS

A functional (versus administrative) based classification system applied to all ORN road segments.

The National Road Class list is as follows:

Freeway - An unimpeded, high speed controlled access thoroughfare for through traffic with typically no at grade intersections, usually with no property access or direct access and which is accessed by a ramp. Pedestrians prohibited.

Expressway/Highway - A high speed thoroughfare with a combination of controlled access and intersections at grade level.

Arterial - A major thoroughfare with medium to large traffic capacity

Collector - A minor thoroughfare mainly used to access properties and to feed traffic with right of way.

Local / Street - A low speed thoroughfare dedicated to provide full access to the front of properties.

Local / Strata - A low speed thoroughfare dedicated to provide access to properties with potential public restriction, trailer parks, first nations, strata or private estates.

Local / Unknown - A low speed thoroughfare dedicated to provide access to the front of properties but for which the access regulations are unknown.

Alleyway / Laneway - A low speed thoroughfare dedicated to provide access to the rear of properties.

Ramp - A system of interconnecting roadways providing for the controlled movement between two or more roadways.

Resource / Recreation - A narrow passage which has as a primary function access for resources extraction and also may have a role in providing an access for the public to back country.

Rapid Transit - A thoroughfare restricted 24 hours a day, for the sole use of public transportation buses.

Service - A stretch of road permitting vehicles to come to a stop along a Freeway or Highway. These include weigh scales, emergency lanes, lookouts and rest areas.

Winter - A road that is only useable during the winter months when conditions allow for passage over lakes, rivers and wetlands.

Note: Local / Unknown will not be used in the ORN, however may exist in the NRN for other provinces. (Source: ORN_SEGMENT_WITH_ADDRESS.NATIONAL_ROAD_CLASS)

Table ORNSEGAD_DBF_VW (continued)

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
7	NAME_BODY	VARCHAR2(50)	No	NAME_BODY
	<p>A component of the full street name (official or alternate) assigned by a municipality or road authority, which has, compared to the other street name components (directional prefix, street type prefix, street type suffix and directional suffix) the most identifying power. Street name body is stored in proper case. If a street name (official or alternate) exists: 1. A street name must have a street name body; 2. A street name may also consist of none, or one or more of the following street name components (directional prefix, street type prefix, street type suffix and directional suffix). For example a street name may not contain a street type prefix or suffix and/or a directional prefix or suffix; and, 3. The street name body text can never be abbreviated. (Source: ORN_SEGMENT_WITH_ADDRESS.STREET_NAME_BODY)</p>			
8	DIR_PREFIX	VARCHAR2(10)	No	DIR_PREFIX
	<p>A geographic direction, which is part of the street name (official or alternate) which precedes the street name body and, if appropriate, the street type prefix. This attribute (where present) is used in conjunction with the attributes street type prefix, street name body, street type suffix and directional suffix to form the composite street name and is stored in proper case. A list of directional prefixes and their associated short forms are contained in Appendix A - Street Direction. (Source: ORN_SEGMENT_WITH_ADDRESS.DIRECTIONAL_PREFIX)</p>			
9	TYP_PREFIX	VARCHAR2(30)	No	TYP_PREFIX
	<p>A part of the street name (official or alternate) identifying the street type which precedes the street name body. This attribute (where present) is used in conjunction with the attributes directional prefix, street name body, street type suffix and directional suffix to form the composite street name and is stored in proper case. When a road is classified as French or English, it is based upon the defined street type. For example: 1. Rue Leonard - the presence of "Rue" means it will be classified as a French street name; and, 2. Leonard Street - the presence of "Street" means it will be classified as an English street name. A list of street type prefixes and their associated short forms are contained in Appendix B - Street Type. (Source: ORN_SEGMENT_WITH_ADDRESS.STREET_TYPE_PREFIX)</p>			
10	TYP_SUFFIX	VARCHAR2(30)	No	TYP_SUFFIX
	<p>A part of the street name (official or alternate) identifying the street type which succeeds the street name body. This attribute (where present) is used in conjunction with the attributes directional prefix, street type prefix, street name body and directional suffix to form the composite street name and is stored in proper case. When a road is classified as French or English, it is based upon the defined street type. For example: 1. Rue Leonard - the presence of "Rue" means it will be classified as a French street name; and, 2. Leonard Street - the presence of "Street" means it will be classified as an English street name. A list of street type suffixes and their associated short forms are contained in Appendix B - Street Type. (Source: ORN_SEGMENT_WITH_ADDRESS.STREET_TYPE_SUFFIX)</p>			

Table ORNSEGAD_DBF_VW (continued)

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
11	DIR_SUFFIX	VARCHAR2(10)	No	DIR_SUFFIX
	A geographic direction, which is part of the street name (official or alternate) which succeeds the street name body and, if appropriate, the street type suffix. This attribute (where present) is used in conjunction with the attributes directional prefix, street type prefix, street name body and street type suffix to form the composite street name and is stored in proper case. A list of directional suffixes and their associated short forms are contained in Appendix A - Street Direction. (Source: ORN_SEGMENT_WITH_ADDRESS.DIRECTIONAL_SUFFIX)			
12	FULL_NAME	VARCHAR2(100)	No	FULL_NAME
	This attribute is derived from the individual street name components (where present), namely (directional prefix, street type prefix, street name body, street type suffix and directional suffix) and is stored in upper case text. (Source: ORN_SEGMENT_WITH_ADDRESS.FULL_STREET_NAME_UPPER)			
13	ABBR_NAME	VARCHAR2(100)	No	ABBR_NAME
	This attribute is derived from the individual street name components (where present), namely (directional prefix, street type prefix, street name body, street type suffix and directional suffix) and is stored in upper case text. This derived attribute will contain any abbreviated text from the following four street name components (where present): 1. Directional Prefix; 2. Street Type Prefix; 3. Street Type Suffix; and, 4. Directional Suffix. Abbreviations to the street name body are not permitted. (Source: ORN_SEGMENT_WITH_ADDRESS.ABBR_STREET_NAME_UPPER)			
14	L_MUNIC	VARCHAR2(80)	No	L_MUNIC
	The municipality name on the left side of an ORN road segment. (Source: ORN_SEGMENT_WITH_ADDRESS.L_MUNICIPALITY_NAME)			

Table ORNSEGAD_DBF_VW (continued)

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
15	<p>L_FIRST</p> <p>The first house or property number along the left side of an ORN road segment. This value may be a known or interpreted value, due to segmentation occurring as a result of ORN attribute changes.</p> <p>Right first house number shall be different than the left first house number, except where the address ranges are 0,0.</p> <p>There are some cases where a road is divided into northbound and southbound, or eastbound and westbound lanes (physically separated by a median, or barrier of some type). In these cases, two separate centrelines are captured. For each of these centrelines, left or right first/last house numbers will be numeric on the side opposite the median or barrier and zero to zero on the median or barrier side.</p> <p>A municipality, county or region determines the left and right first/last house numbers.</p> <p>Left and right house number rules:</p> <ol style="list-style-type: none"> 1) Support whole numbers 2) Should not overlap 3) The first and last house number values may be the same 4) The first and last house number values represent the lowest number to the highest number 5) Zero and zero ranges are permissible for first and last house number (where no addressing in place 6) Zero to a number ranges are not permissible. <p>(Source: ORN_SEGMENT_WITH_ADDRESS.L_FIRST_HOUSE_NUMBER)</p>	NUMBER(7,0)	No	L_FIRST
16	<p>L_LAST</p> <p>The last house or property number along the left side of an ORN road segment. This value may be a known or interpreted value, due to segmentation occurring as a result of ORN attribute changes.</p> <p>Right last house number shall be different than the left last house number, except where the address ranges are 0,0.</p> <p>There are some cases where a road is divided into northbound and southbound, or eastbound and westbound lanes (physically separated by a median, or barrier of some type). In these cases, two separate centrelines are captured. For each of these centrelines, left or right first/last house numbers will be numeric on the side opposite the median or barrier and zero to zero on the median or barrier side. A municipality, county or region determines the left and right first/last house numbers. Left and right house number rules:</p> <ol style="list-style-type: none"> 1) Support whole numbers 2) Should not overlap 3) The first and last house number values may be the same 4) The first and last house number values represent the lowest number to the highest number 5) Zero and zero ranges are permissible for first and last house number (where no addressing in place 6) Zero to a number ranges are not permissible. <p>(Source: ORN_SEGMENT_WITH_ADDRESS.L_LAST_HOUSE_NUMBER)</p>	NUMBER(7,0)	No	L_LAST

Table ORNSEGAD_DBF_VW (continued)

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
17	L_STRUCT	VARCHAR2(10)	No	L_STRUCT
	<p>The type of house or property numbering (or addressing number) method that is applied to the left side of an ORN road segment (e.g. Odd, Even, Mixed, None or Irregular).</p> <p>None - No house numbers at all. There are no houses (or addressed dwellings) along the left side of an ORN road segment.</p> <p>Odd - The house numbers appear as odd numbers in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An odd house number series, which has missing numbers, but is sequentially sorted, is considered "Odd". (5,7,9,11,13) and (35,39,43,69,71,73,85) are examples.</p> <p>Even - The house numbers appear as even numbers in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An even house number series which has missing numbers, but is sequentially sorted, is considered "Even". (2,4,8,18,22) are examples.</p> <p>Mixed - The house numbers are odd and even on the same side of an ORN road segment in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An odd and even house number series which has missing numbers, but is sequentially sorted, is considered "Mixed". (5,6,7,9,10,13) and (24,27,30,33,34,36) are examples.</p> <p>Irregular - Means the house numbers do not occur in any sorted order.</p> <p>(Source: ORN_SEGMENT_WITH_ADDRESS.L_HOUSE_NUMBER_STRUCTURE)</p>			
18	L_REF_SYS	VARCHAR2(30)	No	L_REF_SYS
	<p>An indication of whether the physical address for the left side of an ORN road segment is based on the actual civic address or a township lot/con address.</p> <p>Options are:</p> <p>Civic</p> <p>Lot/Con (Source: ORN_SEGMENT_WITH_ADDRESS.L_REFERENCE_SYSTEM_INDICATOR)</p>			
19	R_MUNIC	VARCHAR2(80)	No	R_MUNIC
	<p>The municipality name on the right side of an ORN road segment. (Source: ORN_SEGMENT_WITH_ADDRESS.R_MUNICIPALITY_NAME)</p>			

Table ORNSEGAD_DBF_VW (continued)

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
20	R_FIRST	NUMBER(7,0)	No	R_FIRST
	<p>The first house or property number along the right side of an ORN road segment. This value may be a known or interpreted value, due to segmentation occurring as a result of ORN attribute changes.</p> <p>Right first house number shall be different than the left first house number, except where the address ranges are 0,0.</p> <p>There are some cases where a road is divided into northbound and southbound, or eastbound and westbound lanes (physically separated by a median, or barrier of some type). In these cases, two separate centrelines are captured. For each of these centrelines, left or right first/last house numbers will be numeric on the side opposite the median or barrier and zero to zero on the median or barrier side.</p> <p>A municipality, county or region determines the left and right first/last house numbers.</p> <p>Left and right house number rules:</p> <ol style="list-style-type: none"> 1) Support whole numbers 2) Should not overlap 3) The first and last house number values may be the same 4) The first and last house number values represent the lowest number to the highest number 5) Zero and zero ranges are permissible for first and last house number (where no addressing in place) 6) Zero to a number ranges are not permissible. (Source: ORN_SEGMENT_WITH_ADDRESS.R_FIRST_HOUSE_NUMBER) 			
21	R_LAST	NUMBER(7,0)	No	R_LAST
	<p>The last house or property number along the right side of an ORN road segment. This value may be a known or interpreted value, due to segmentation occurring as a result of ORN attribute changes. Right last house number shall be different than the left last house number, except where the address ranges are 0,0.</p> <p>There are some cases where a road is divided into northbound and southbound, or eastbound and westbound lanes (physically separated by a median, or barrier of some type). In these cases, two separate centrelines are captured. For each of these centrelines, left or right first/last house numbers will be numeric on the side opposite the median or barrier and zero to zero on the median or barrier side.</p> <p>A municipality, county or region determines the left and right first/last house numbers.</p> <p>Left and right house number rules:</p> <ol style="list-style-type: none"> 1) Support whole numbers 2) Should not overlap 3) The first and last house number values may be the same 4) The first and last house number values represent the lowest number to the highest number 5) Zero and zero ranges are permissible for first and last house number (where no addressing in place) 6) Zero to a number ranges are not permissible. (Source: ORN_SEGMENT_WITH_ADDRESS.R_LAST_HOUSE_NUMBER) 			

Table ORNSEGAD_DBF_VW (continued)

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
22	R_STRUCT	VARCHAR2(10)	No	R_STRUCT
	<p>The type of house or property numbering (or addressing number) method that is applied to the right side of an ORN road segment (e.g. Odd, Even, Mixed, None or Irregular).</p> <p>None - No house numbers at all. There are no houses (or addressed dwellings) along the right side of an ORN road segment.</p> <p>Odd - The house numbers appear as odd numbers in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An odd house number series, which has missing numbers, but is sequentially sorted, is considered "Odd". (5,7,9,11,13) and (35,39,43,69,71,73,85) are examples.</p> <p>Even - The house numbers appear as even numbers in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An even house number series which has missing numbers, but is sequentially sorted, is considered "Even". (2,4,8,18,22) are examples.</p> <p>Mixed - The house numbers are odd and even on the same side of an ORN road segment in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An odd and even house number series which has missing numbers, but is sequentially sorted, is considered "Mixed". (5,6,7,9,10,13) and (24,27,30,33,34,36) are examples.</p> <p>Irregular - Means the house numbers do not occur in any sorted order. (Source: ORN_SEGMENT_WITH_ADDRESS.R_HOUSE_NUMBER_STRUCTURE)</p>			
23	R_REF_SYS	VARCHAR2(30)	No	R_REF_SYS
	<p>An indication of whether the physical address for the right side of an ORN road segment is based on the actual civic address or a township lot/con address.</p> <p>Options are:</p> <p>Civic</p> <p>Lot/Con (Source: ORN_SEGMENT_WITH_ADDRESS.R_REFERENCE_SYSTEM_INDICATOR)</p>			
24	VERISTT_FL	VARCHAR2(10)	No	VERISTT_FL
	<p>An indication as to whether a qualified employee has verified the existence of the geographic unit. (Source: GEOG_UNIT.VERIFICATION_STATUS_FLG)</p>			
25	VERISTT_DT	VARCHAR2(10)	No	VERISTT_DT
	<p>Date that the geographic unit was verified/validated. (Source: GEOG_UNIT.VERIFICATION_STATUS_DATE)</p>			
26	BUSEFFDTFL	VARCHAR2(10)	No	BUSEFFDTFL
	<p>Indication of whether the business effective date is an actual or estimated value. (Source: GEOG_UNIT.BUSINESS_EFF_DATE_FLG)</p>			

Table ORNSEGAD_DBF_VW (continued)

Desc: ORNSEGAD shapefile attributes exported by LIDS (in arc.dbf).

ID	Column Name	Type	Mandatory	Short Name
27	BUS_EFF_DT	VARCHAR2(10)	No	BUS_EFF_DT
	Date that the record becomes effective in relation to the business i.e. the date MNR became aware of its existence. (Source: GEOG_UNIT.BUSINESS_EFFECTIVE_DATE)			
28	ACCURACY	VARCHAR2(25)	No	ACCURACY
	The degree of conformity or closeness of a measurement within the database to its true value in the world. (Source: GEOG_UNIT.LOCATION_ACCURACY)			
29	SENS_CLASS	VARCHAR2(15)	No	SENS_CLASS
	The ranking of the sensitivity of the information embodied in the feature. (Source: GEOG_UNIT.SENSITIVITY_CLASS)			
30	SENS_DATE	VARCHAR2(10)	No	SENS_DATE
	The date that the sensitivity classification was established. (Source: GEOG_UNIT.SENSITIVITY_DATE)			
31	SENS_RAT	VARCHAR2(50)	No	SENS_RAT
	The primary reason for the information sensitivity classification. (Source: GEOG_UNIT.SENSITIVITY_RATIONALE)			
32	SENS_DESCR	VARCHAR2(250)	No	SENS_DESCR
	Description of the reason(s) for the information classification when "Other" is selected as the rationale. (Source: GEOG_UNIT.SENS_RATIONALE_OTHER_DESCR)			
33	SYS_AREA	NUMBER(16,3)	No	SYS_AREA
	The area of a polygon measured in square metres by the system. (Source: GEOG_UNIT.SYSTEM_CALCULATED_AREA)			
34	SYS_LENGTH	NUMBER(16,3)	No	SYS_LENGTH
	The perimeter of a polygon or length of a line measured in metres. (Source: GEOG_UNIT.SYSTEM_CALCULATED_LENGTH)			
35	USER_CALC	NUMBER(16,3)	No	USER_CALC
	The length, perimeter or area of an object in metres or square metres as measured or provided by the user. (Source: GEOG_UNIT.USER_CALCULATED_METRIC)			
36	GNL_CMT	VARCHAR2(255)	No	GNL_CMT
	General comments. (Source: GEOG_UNIT.GENERAL_COMMENTS)			
37	EFF_DATE	VARCHAR2(10)	No	EFF_DATE
	(Source: ORN_SEGMENT_WITH_ADDRESS.EFFECTIVE_DATETIME)			

Table ORN_SEGMENT_WITH_ADDRESS

Desc: A linear section of earth that is designed for, or is the result of vehicular movement. It serves as the smallest unit of a centreline road network.

Road segmentation occurs in this segmented version of the ORN, based on rules adopted for the ORN LRS version:

1. At intersections of two or more non grade-separated ORN roads
2. Intersections between road elements and ferry connections (ferries which transport vehicles and people across a waterbody and,
3. At provincial or international borders.

Additional segmentation occurs whenever there is a change in any of the following attributes:

1. Street Name
2. Address Information
3. Route Identification
4. Road Classification and,
5. Direction of Traffic Flow.

ID	Column Name	Type	Mandatory	Short Name
1	FMF_OBJECT_ID System generated identifier, unique at the application level.	NUMBER(13,0)	Yes	OBJECT_ID
2	DIRECTION_OF_TRAFFIC_FLOW The direction(s) of traffic flow allowed on an ORN road segment. Options are: Both - Traffic is allowed in both directions Positive - Traffic is in the same direction as the geometry or, Negative - Traffic is opposite to the direction of the geometry. All ORN road segments must have a direction of traffic flow assigned. Traffic refers to vehicular or motor vehicles only.	VARCHAR2(8)	Yes	DIR_FLOW

Table ORN_SEGMENT_WITH_ADDRESS (continued)

ID	Column Name	Type	Mandatory	Short Name
3	NATIONAL_ROAD_CLASS	VARCHAR2(30)	Yes	NAT_CLASS
	<p>A functional (versus administrative) based classification system applied to all ORN road segments.</p> <p>The National Road Class list is as follows:</p> <p>Freeway - An unimpeded, high speed controlled access thoroughfare for through traffic with typically no at grade intersections, usually with no property access or direct access and which is accessed by a ramp. Pedestrians prohibited.</p> <p>Expressway/Highway - A high speed thoroughfare with a combination of controlled access and intersections at grade level.</p> <p>Arterial - A major thoroughfare with medium to large traffic capacity</p> <p>Collector - A minor thoroughfare mainly used to access properties and to feed traffic with right of way.</p> <p>Local / Street - A low speed thoroughfare dedicated to provide full access to the front of properties.</p> <p>Local / Strata - A low speed thoroughfare dedicated to provide access to properties with potential public restriction, trailer parks, first nations, strata or private estates.</p> <p>Local / Unknown - A low speed thoroughfare dedicated to provide access to the front of properties but for which the access regulations are unknown.</p> <p>Alleyway / Laneway - A low speed thoroughfare dedicated to provide access to the rear of properties.</p> <p>Ramp - A system of interconnecting roadways providing for the controlled movement between two or more roadways.</p> <p>Resource / Recreation - A narrow passage which has as a primary function access for resources extraction and also may have a role in providing an access for the public to back country.</p> <p>Rapid Transit - A thoroughfare restricted 24 hours a day, for the sole use of public transportation buses.</p> <p>Service - A stretch of road permitting vehicles to come to a stop along a Freeway or Highway. These include weigh scales, emergency lanes, lookouts and rest areas.</p> <p>Winter - A road that is only useable during the winter months when conditions allow for passage over lakes, rivers and wetlands.</p> <p>Note: Local / Unknown will not be used in the ORN, however may exist in the NRN for other provinces.</p>			

Table ORN_SEGMENT_WITH_ADDRESS (continued)

ID	Column Name	Type	Mandatory	Short Name
4	STREET_NAME_BODY A component of the full street name (official or alternate) assigned by a municipality or road authority, which has, compared to the other street name components (directional prefix, street type prefix, street type suffix and directional suffix) the most identifying power. Street name body is stored in proper case. If a street name (official or alternate) exists: 1. A street name must have a street name body; 2. A street name may also consist of none, or one or more of the following street name components (directional prefix, street type prefix, street type suffix and directional suffix). For example a street name may not contain a street type prefix or suffix and/or a directional prefix or suffix; and, 3. The street name body text can never be abbreviated.	VARCHAR2(50)	No	NAME_BODY
5	DIRECTIONAL_PREFIX A geographic direction, which is part of the street name (official or alternate) which precedes the street name body and, if appropriate, the street type prefix. This attribute (where present) is used in conjunction with the attributes street type prefix, street name body, street type suffix and directional suffix to form the composite street name and is stored in proper case. A list of directional prefixes and their associated short forms are contained in Appendix A - Street Direction.	VARCHAR2(10)	No	DIR_PREFIX
6	STREET_TYPE_PREFIX A part of the street name (official or alternate) identifying the street type which precedes the street name body. This attribute (where present) is used in conjunction with the attributes directional prefix, street name body, street type suffix and directional suffix to form the composite street name and is stored in proper case. When a road is classified as French or English, it is based upon the defined street type. For example: 1. Rue Leonard - the presence of "Rue" means it will be classified as a French street name; and, 2. Leonard Street - the presence of "Street" means it will be classified as an English street name. A list of street type prefixes and their associated short forms are contained in Appendix B - Street Type.	VARCHAR2(30)	No	TYP_PREFIX
7	STREET_TYPE_SUFFIX A part of the street name (official or alternate) identifying the street type which succeeds the street name body. This attribute (where present) is used in conjunction with the attributes directional prefix, street type prefix, street name body and directional suffix to form the composite street name and is stored in proper case. When a road is classified as French or English, it is based upon the defined street type. For example: 1. Rue Leonard - the presence of "Rue" means it will be classified as a French street name; and, 2. Leonard Street - the presence of "Street" means it will be classified as an English street name. A list of street type suffixes and their associated short forms are contained in Appendix B - Street Type.	VARCHAR2(30)	No	TYP_SUFFIX

Table ORN_SEGMENT_WITH_ADDRESS (continued)

ID	Column Name	Type	Mandatory	Short Name
8	DIRECTIONAL_SUFFIX A geographic direction, which is part of the street name (official or alternate) which succeeds the street name body and, if appropriate, the street type suffix. This attribute (where present) is used in conjunction with the attributes directional prefix, street type prefix, street name body and street type suffix to form the composite street name and is stored in proper case. A list of directional suffixes and their associated short forms are contained in Appendix A - Street Direction.	VARCHAR2(10)	No	DIR_SUFFIX
9	FULL_STREET_NAME_UPPER This attribute is derived from the individual street name components (where present), namely (directional prefix, street type prefix, street name body, street type suffix and directional suffix) and is stored in upper case text.	VARCHAR2(100)	No	FULL_NAME
10	ABBR_STREET_NAME_UPPER This attribute is derived from the individual street name components (where present), namely (directional prefix, street type prefix, street name body, street type suffix and directional suffix) and is stored in upper case text. This derived attribute will contain any abbreviated text from the following four street name components (where present): 1. Directional Prefix; 2. Street Type Prefix; 3. Street Type Suffix; and, 4. Directional Suffix. Abbreviations to the street name body are not permitted.	VARCHAR2(100)	No	ABBR_NAME
11	L_MUNICIPALITY_NAME The municipality name on the left side of an ORN road segment.	VARCHAR2(80)	No	L_MUNIC

Table ORN_SEGMENT_WITH_ADDRESS (continued)

ID	Column Name	Type	Mandatory	Short Name
12	L_FIRST_HOUSE_NUMBER	NUMBER(7,0)	No	L_FIRST
	<p>The first house or property number along the left side of an ORN road segment. This value may be a known or interpreted value, due to segmentation occurring as a result of ORN attribute changes.</p> <p>Right first house number shall be different than the left first house number, except where the address ranges are 0,0.</p> <p>There are some cases where a road is divided into northbound and southbound, or eastbound and westbound lanes (physically separated by a median, or barrier of some type). In these cases, two separate centrelines are captured. For each of these centrelines, left or right first/last house numbers will be numeric on the side opposite the median or barrier and zero to zero on the median or barrier side.</p> <p>A municipality, county or region determines the left and right first/last house numbers.</p> <p>Left and right house number rules:</p> <ol style="list-style-type: none"> 1) Support whole numbers 2) Should not overlap 3) The first and last house number values may be the same 4) The first and last house number values represent the lowest number to the highest number 5) Zero and zero ranges are permissible for first and last house number (where no addressing in place) 6) Zero to a number ranges are not permissible. 			
13	L_LAST_HOUSE_NUMBER	NUMBER(7,0)	No	L_LAST
	<p>The last house or property number along the left side of an ORN road segment. This value may be a known or interpreted value, due to segmentation occurring as a result of ORN attribute changes. Right last house number shall be different than the left last house number, except where the address ranges are 0,0.</p> <p>There are some cases where a road is divided into northbound and southbound, or eastbound and westbound lanes (physically separated by a median, or barrier of some type). In these cases, two separate centrelines are captured. For each of these centrelines, left or right first/last house numbers will be numeric on the side opposite the median or barrier and zero to zero on the median or barrier side. A municipality, county or region determines the left and right first/last house numbers.</p> <p>Left and right house number rules:</p> <ol style="list-style-type: none"> 1) Support whole numbers 2) Should not overlap 3) The first and last house number values may be the same 4) The first and last house number values represent the lowest number to the highest number 5) Zero and zero ranges are permissible for first and last house number (where no addressing in place) 6) Zero to a number ranges are not permissible. 			

Table ORN_SEGMENT_WITH_ADDRESS (continued)

ID	Column Name	Type	Mandatory	Short Name
14	L_HOUSE_NUMBER_STRUCTURE	VARCHAR2(10)	No	L_STRUCT
	<p>The type of house or property numbering (or addressing number) method that is applied to the left side of an ORN road segment (e.g. Odd, Even, Mixed, None or Irregular).</p> <p>None - No house numbers at all. There are no houses (or addressed dwellings) along the left side of an ORN road segment.</p> <p>Odd - The house numbers appear as odd numbers in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An odd house number series, which has missing numbers, but is sequentially sorted, is considered "Odd". (5,7,9,11,13) and (35,39,43,69,71,73,85) are examples.</p> <p>Even - The house numbers appear as even numbers in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An even house number series which has missing numbers, but is sequentially sorted, is considered "Even". (2,4,8,18,22) are examples.</p> <p>Mixed - The house numbers are odd and even on the same side of an ORN road segment in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An odd and even house number series which has missing numbers, but is sequentially sorted, is considered "Mixed". (5,6,7,9,10,13) and (24,27,30,33,34,36) are examples.</p> <p>Irregular - Means the house numbers do not occur in any sorted order.</p>			
15	L_REFERENCE_SYSTEM_INDICATOR	VARCHAR2(30)	No	L_REF_SYS
	<p>An indication of whether the physical address for the left side of an ORN road segment is based on the actual civic address or a township lot/con address.</p> <p>Options are:</p> <p>Civic</p> <p>Lot/Con</p>			
16	R_MUNICIPALITY_NAME	VARCHAR2(80)	No	R_MUNIC
	<p>The municipality name on the right side of an ORN road segment.</p>			

Table ORN_SEGMENT_WITH_ADDRESS (continued)

ID	Column Name	Type	Mandatory	Short Name
17	R_FIRST_HOUSE_NUMBER	NUMBER(7,0)	No	R_FIRST
	<p>The first house or property number along the right side of an ORN road segment. This value may be a known or interpreted value, due to segmentation occurring as a result of ORN attribute changes.</p> <p>Right first house number shall be different than the left first house number, except where the address ranges are 0,0.</p> <p>There are some cases where a road is divided into northbound and southbound, or eastbound and westbound lanes (physically separated by a median, or barrier of some type). In these cases, two separate centrelines are captured. For each of these centrelines, left or right first/last house numbers will be numeric on the side opposite the median or barrier and zero to zero on the median or barrier side.</p> <p>A municipality, county or region determines the left and right first/last house numbers.</p> <p>Left and right house number rules:</p> <ol style="list-style-type: none"> 1) Support whole numbers 2) Should not overlap 3) The first and last house number values may be the same 4) The first and last house number values represent the lowest number to the highest number 5) Zero and zero ranges are permissible for first and last house number (where no addressing in place) 6) Zero to a number ranges are not permissible. 			
18	R_LAST_HOUSE_NUMBER	NUMBER(7,0)	No	R_LAST
	<p>The last house or property number along the right side of an ORN road segment. This value may be a known or interpreted value, due to segmentation occurring as a result of ORN attribute changes.</p> <p>Right last house number shall be different than the left last house number, except where the address ranges are 0,0.</p> <p>There are some cases where a road is divided into northbound and southbound, or eastbound and westbound lanes (physically separated by a median, or barrier of some type). In these cases, two separate centrelines are captured. For each of these centrelines, left or right first/last house numbers will be numeric on the side opposite the median or barrier and zero to zero on the median or barrier side.</p> <p>A municipality, county or region determines the left and right first/last house numbers.</p> <p>Left and right house number rules:</p> <ol style="list-style-type: none"> 1) Support whole numbers 2) Should not overlap 3) The first and last house number values may be the same 4) The first and last house number values represent the lowest number to the highest number 5) Zero and zero ranges are permissible for first and last house number (where no addressing in place) 6) Zero to a number ranges are not permissible. 			

Table ORN_SEGMENT_WITH_ADDRESS (continued)

ID	Column Name	Type	Mandatory	Short Name
19	R_HOUSE_NUMBER_STRUCTURE	VARCHAR2(10)	No	R_STRUCT
	<p>The type of house or property numbering (or addressing number) method that is applied to the right side of an ORN road segment (e.g. Odd, Even, Mixed, None or Irregular).</p> <p>None - No house numbers at all. There are no houses (or addressed dwellings) along the right side of an ORN road segment.</p> <p>Odd - The house numbers appear as odd numbers in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An odd house number series, which has missing numbers, but is sequentially sorted, is considered "Odd". (5,7,9,11,13) and (35,39,43,69,71,73,85) are examples.</p> <p>Even - The house numbers appear as even numbers in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An even house number series which has missing numbers, but is sequentially sorted, is considered "Even". (2,4,8,18,22) are examples.</p> <p>Mixed - The house numbers are odd and even on the same side of an ORN road segment in a sequential sorted order (ascending or descending) when moving from one end of an ORN road to the other. Numeric completeness of the series is not a requirement. An odd and even house number series which has missing numbers, but is sequentially sorted, is considered "Mixed". (5,6,7,9,10,13) and (24,27,30,33,34,36) are examples.</p> <p>Irregular - Means the house numbers do not occur in any sorted order.</p>			
20	R_REFERENCE_SYSTEM_INDICATOR	VARCHAR2(30)	No	R_REF_SYS
	<p>An indication of whether the physical address for the right side of an ORN road segment is based on the actual civic address or a township lot/con address.</p> <p>Options are:</p> <p>Civic</p> <p>Lot/Con</p>			

Table ORN_SEG_ALT_STREET_NAME

Desc: The alternate name of a street as assigned by a municipality or naming authority which typically has no official status but is used or known by the general public.

Alternate street names may be composed of the following sub-attributes:

1. Directional Prefix
2. Street Type Prefix
3. Street Name Body
4. Street Type Suffix and,
5. Directional Suffix.

Route names or route numbers (event data collected in the ORN LRS version) may be partially duplicated as either an official or alternate street name.

When an alternate street name exists, two additional derived attributes must also be stored in the ORN (LRS and Segmented) version namely:

1. Full Street Name Upper
2. Abbreviated Street Name Upper.

These two additional derived attributes come from combining the following sub-attributes:

1. Directional Prefix
2. Street Type Prefix
3. Street Name Body
4. Street Type Suffix and,
5. Directional Suffix.

These two derived attributes are stored in upper case.

ID	Column Name	Type	Mandatory	Short Name
1	FMF_OBJECT_ID System generated identifier, unique at the application level.	NUMBER(13,0)	Yes	OBJECT_ID
2	ORN_SEG_OBJECT_ID Foreign key to the ORN_SEGMENT_WITH_ADDRESS table	NUMBER(13,0)	Yes	ORN_SEG_ID
3	STREET_NAME_BODY A component of the full street name (official or alternate) assigned by a municipality or road authority, which has, compared to the other street name components (directional prefix, street type prefix, street type suffix and directional suffix) the most identifying power. Street name body is stored in proper case. If a street name (official or alternate) exists: 1. A street name must have a street name body; 2. A street name may also consist of none, or one or more of the following street name components (directional prefix, street type prefix, street type suffix and directional suffix). For example a street name may not contain a street type prefix or suffix and/or a directional prefix or suffix; and, 3. The street name body text can never be abbreviated.	VARCHAR2(50)	Yes	NAME_BODY

Table ORN_SEG_ALT_STREET_NAME (continued)

ID	Column Name	Type	Mandatory	Short Name
4	DIRECTIONAL_PREFIX A geographic direction, which is part of the street name (official or alternate) which precedes the street name body and, if appropriate, the street type prefix. This attribute (where present) is used in conjunction with the attributes street type prefix, street name body, street type suffix and directional suffix to form the composite street name and is stored in proper case. A list of directional prefixes and their associated short forms are contained in Appendix A - Street Direction.	VARCHAR2(10)	No	DIR_PREFIX
5	STREET_TYPE_PREFIX A part of the street name (official or alternate) identifying the street type which precedes the street name body. This attribute (where present) is used in conjunction with the attributes directional prefix, street name body, street type suffix and directional suffix to form the composite street name and is stored in proper case. When a road is classified as French or English, it is based upon the defined street type. For example: 1. Rue Leonard - the presence of "Rue" means it will be classified as a French street name; and, 2. Leonard Street - the presence of "Street" means it will be classified as an English street name. A list of street type prefixes and their associated short forms are contained in Appendix B - Street Type.	VARCHAR2(30)	No	TYP_PREFIX
6	STREET_TYPE_SUFFIX A part of the street name (official or alternate) identifying the street type which succeeds the street name body. This attribute (where present) is used in conjunction with the attributes directional prefix, street type prefix, street name body and directional suffix to form the composite street name and is stored in proper case. When a road is classified as French or English, it is based upon the defined street type. For example: 1. Rue Leonard - the presence of "Rue" means it will be classified as a French street name; and, 2. Leonard Street - the presence of "Street" means it will be classified as an English street name. A list of street type suffixes and their associated short forms are contained in Appendix B - Street Type.	VARCHAR2(30)	No	TYP_SUFFIX
7	DIRECTIONAL_SUFFIX A geographic direction, which is part of the street name (official or alternate) which succeeds the street name body and, if appropriate, the street type suffix. This attribute (where present) is used in conjunction with the attributes directional prefix, street type prefix, street name body and street type suffix to form the composite street name and is stored in proper case. A list of directional suffixes and their associated short forms are contained in Appendix A - Street Direction.	VARCHAR2(10)	No	DIR_SUFFIX

Table ORN_SEG_ALT_STREET_NAME (continued)

ID	Column Name	Type	Mandatory	Short Name
8	FULL_STREET_NAME_UPPER This attribute is derived from the individual street name components (where present), namely (directional prefix, street type prefix, street name body, street type suffix and directional suffix) and is stored in upper case text.	VARCHAR2(100)	Yes	FULL_NAME
9	ABBR_STREET_NAME_UPPER This attribute is derived from the individual street name components (where present), namely (directional prefix, street type prefix, street name body, street type suffix and directional suffix) and is stored in upper case text. This derived attribute will contain any abbreviated text from the following four street name components (where present): 1. Directional Prefix; 2. Street Type Prefix; 3. Street Type Suffix; and, 4. Directional Suffix. Abbreviations to the street name body are not permitted.	VARCHAR2(100)	Yes	ABBR_NAME

Table ORN_SEG_ROUTE_IDENT

Desc: Any road segment in the ORN may contain specific route identification information that is assigned by a governing body (municipal, provincial or federal) agency. Route identification may include route names (i.e. Trans-Canada Highway) or route numbers (i.e. actual signed highway, county or regional road numbers like 401, 115 or 7A).

ID	Column Name	Type	Mandatory	Short Name
1	FMF_OBJECT_ID System generated identifier, unique at the application level.	NUMBER(13,0)	Yes	OBJECT_ID
2	ORN_SEG_OBJECT_ID Foreign key to the ORN_SEGMENT_WITH_ADDRESS table	NUMBER(13,0)	Yes	ORN_SEG_ID
3	ROAD_NUMBER The number that may be assigned to a road segment. Typically this number is for freeways (400 series), highways (115, 27, etc...) county and regional roads. Only the "number" will be populated in this field (i.e. for County Road 2, "2" will be entered). A major use of this attribute is for cartographic map production, whereby a road can be annotated with only its number symbol. This attribute may also be part of the "street name" where the number is part of the official/alternate street name (i.e. County Road 2). If the signed road number has a character as a suffix (i.e. Hwy 7A), the "A" will be stored in the road number suffix.	NUMBER(3,0)	No	ROAD_NUM
4	ROAD_NUMBER_SUFFIX In cases where a road segment is numbered with a combination of a number and a character (i.e. 7A), the suffix (A) will be stored here.	VARCHAR2(4)	No	ROAD_NUM_S
5	ROUTE_NAME_ENG The English name that may be attached to a road segment. If present, this name is associated to an established and maintained route along the road network. The route name is the name of a particular route, as attributed by a national, provincial or municipal organization. A particular route cannot have more than one English name (Trans-Canada), although it may also have a route name French (Trans Canadienne). It may also only have one name (Route Name English or Route Name French).	VARCHAR2(50)	No	RTE_NAME_E
6	ROUTE_NAME_FRE The French name that may be attached to a road segment. If present, this name is associated to an established and maintained route along the road network. The route name is the name of a particular route, as attributed by a national, provincial or municipal organization. A particular route cannot have more than one French name (Trans Canadienne), although it may also have a route name English (Trans-Canada). It may also only have one name (Route Name English or Route Name French).	VARCHAR2(50)	No	RTE_NAME_F

Appendix

Lookup Tables – N/A

Date Information

Note that the format for date attribute columns is yyyy-mm-dd-hh:mm:ss. An example is 1998-02-16-00:00:00.

Standard date columns are shown on the data model diagram, but to save space are not repeated for each of the detailed table descriptions. The descriptions below apply to all of them.

Column Name	Type	Man	Short Name
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE
For subscription: Date/time that the record was created in the LIO database. For publication: Date/time that the record was created in the source database.			
EXPIRY_DATETIME	DATE	No	EXP_DATE
For subscription: Date/time the record is no longer valid in the LIO database. For publication: Date/time the record is no longer valid in the source database.			
EXT_EFFECTIVE_DATETIME	DATE	Yes	EXT_EFF_DT
For subscription: Date/time that the record was created in the source database. For publication: not applicable.			
EXT_EXPIRY_DATETIME	DATE	No	EXT_EXP_DT
For subscription: Date/time the record is no longer valid in the source database. For publication: not applicable.			

All tables contain EFFECTIVE_DATETIME and EXPIRY_DATETIME.
All tables except lookup tables also contain EXT_EFFECTIVE_DATETIME and EXT_EXPIRY_DATETIME.