

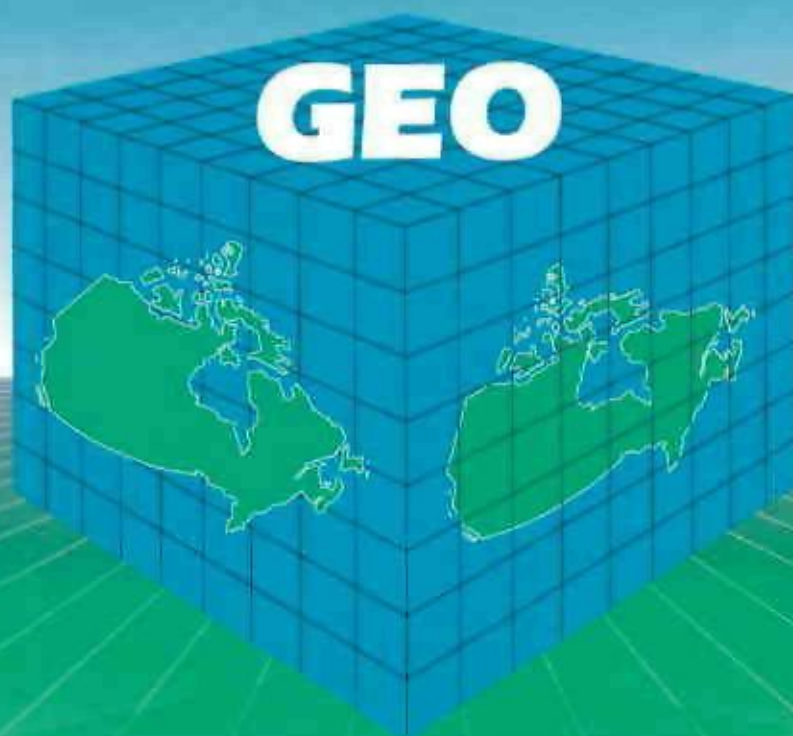
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# GEO

*c.4*  
The Street Network File  
User Guide  
(ARC/INFO Export Format)



1991 CENSUS  
RECENSEMENT DE 1991



Statistics  
Canada

Statistique  
Canada

Canada

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**The Street Network File  
User Guide  
(ARC/INFO® Export format)**

**Produced by the Geography Division  
Statistics Canada  
June 1992**

***Also available in French  
Également disponible en français***



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## **1 - INTRODUCTION**

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### **1.1 Preface**

The Street Network File User Guide is intended to provide information on the context, quality and content of the Street Network Files (SNFs). It includes a brief overview of the SNFs, a Data Quality Statement, a detailed description of the files, and also features a dictionary of the terms found in the SNFs, as well as a list of Statistics Canada's Regional Reference Centres.

### **1.2 Overview of the SNF Content**

The Street Network Files are digital data files stored in computer readable format, which define the street network for large urban centres in Canada. The files also show physical and cultural features within a specific geographic area, usually a census subdivision (CSD). An SNF references streets, address ranges, block-face representative point coordinates, and includes such features as rivers, railroad tracks and municipal boundaries, which are the basic elements found on a user reference map.

### **1.3 Purpose of the Street Network Files (SNF)**

The Street Network Files (SNF), formerly known as the Area Master Files (or AMFs) were first created in the early 1970s as the basis for retrieval of Census data for user-defined geographic areas. More recently, the SNFs have also been used in Census data collection, specifically in the delineation of Enumeration Areas and the automated production of collection maps. In addition, the files have been used in the creation of the Digital Boundary Files and the Postal Code Conversion File. These and other geography products can also be obtained from your local Statistics Canada Regional Reference Centre.

### **1.4 Coverage**

The SNFs currently cover 342 municipalities (CSDs), the majority of which are part of census metropolitan areas (CMAs) and census agglomerations (CAs). All 25 CMAs, and 19 of the CAs are either wholly or partially covered. In addition, eleven CSD's which fall outside CMA/CA limits are included. These areas cover 60% of the population of Canada, but less than 1% of the land area.

The release of the SNFs is being carried out in phases. We therefore recommend that you contact your nearest Regional Reference Centre to find out which CSDs included in the SNF program are currently available.

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## **2 - DATA QUALITY STATEMENT**

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### **2.1 Introduction**

Geography Division's Street Network Files (SNFs) incorporate a detailed level of geocartographic information for all major urban centres. The main purpose of the SNFs within Statistics Canada is to support the needs of the Census of Population and Housing. More specifically, the street network information is used prior to a census to define enumeration areas and to create corresponding EA maps for collection purposes. Following a census, it is used to create reference maps for dissemination purposes and to support the geocoding and retrieval of Census data for user-defined areas. The latter is the original reason for creation of the Street Network Files in the early 1970s.

### **2.2 Lineage - A Description of Data Sources and Reference Dates**

#### **Sources**

The quality of each street network file depends on the collection and processing of information about changes in the real world. The primary sources of updating have been maps and descriptive information from municipalities, the enumeration records and field maps from the quinquennial Census of Population and Housing, and other sources for addresses and non-street features. Municipalities provide a variety of documents which may include street maps, printouts of digital street network files, development plans and manually drafted corrections entered on street network plots provided by Geography Division. While the scales of these source maps vary widely, most are within the range of 1:1000 to 1:30,000. Scales of 1:5,000, 1:10,000 and 1:25,000 are used most frequently. The National Topographic Series (NTS) 1:50,000 map sheets produced by Energy Mines and Resources Canada and the Ontario Base Maps (OBM) were used as the basis for the initial creation of some SNFs. These maps were also used as a source of information to provide certain classes of more stable features (e.g. hydrography) in areas not covered by municipal information.

Because street networks are updated periodically, a typical street network file is a composite of information entered at various times over a period of years. Consequently, data quality may be uneven within the same SNF. This is mainly because the quality of source documents has varied over time and sometimes lower quality input documents are used rather than omitting updates altogether. This is consistent with the emphasis on completeness over absolute positional accuracy.

Each street network file consists of street network information on the one hand and attribute information on the other. In many cases, the reference date of the street network and the attribute data differ. In real terms, this means that new streets may be added to the street network while attributes (i.e. address ranges) are left to a subsequent updating cycle. While feature attributes such as street names are almost always added with the feature itself, address ranges are frequently unavailable when a street is first added to the file.

Updating of street network files is not a continuous process for operational reasons. The overhead costs of assembling input materials and the computer processing of updates have made frequent updating impractical.



## **Data Quality Statement - Cont'd**

### **Reference Dates**

The current release of the Street Network Files was scheduled to correspond to the release of 1991 Census data and is the version used for 1991 geocoding. For this reason, the timely release of these files was deemed to be important to many users. Although these Street Network Files are labelled as 1991 versions and reflect the most recent updates, the user should be aware that the year refers to the chronology of the release only. All files have been updated to at least June 1986, however, the current reference dates of specific street networks vary between June 1986 and December 1991 for the network information, and between June 1986 and February 1991 for address information (Refer to Section 3 for the detailed reference dates by CSD). These reference dates refer to the date identified on the update material or the date provided by the organization supplying the update material. The true time reference of particular data items in the files depends on the sources used in updating. In practice, the detailed lineage of these inputs is often not known precisely. The official reference date of a street network file is not changed when minor updates are added.

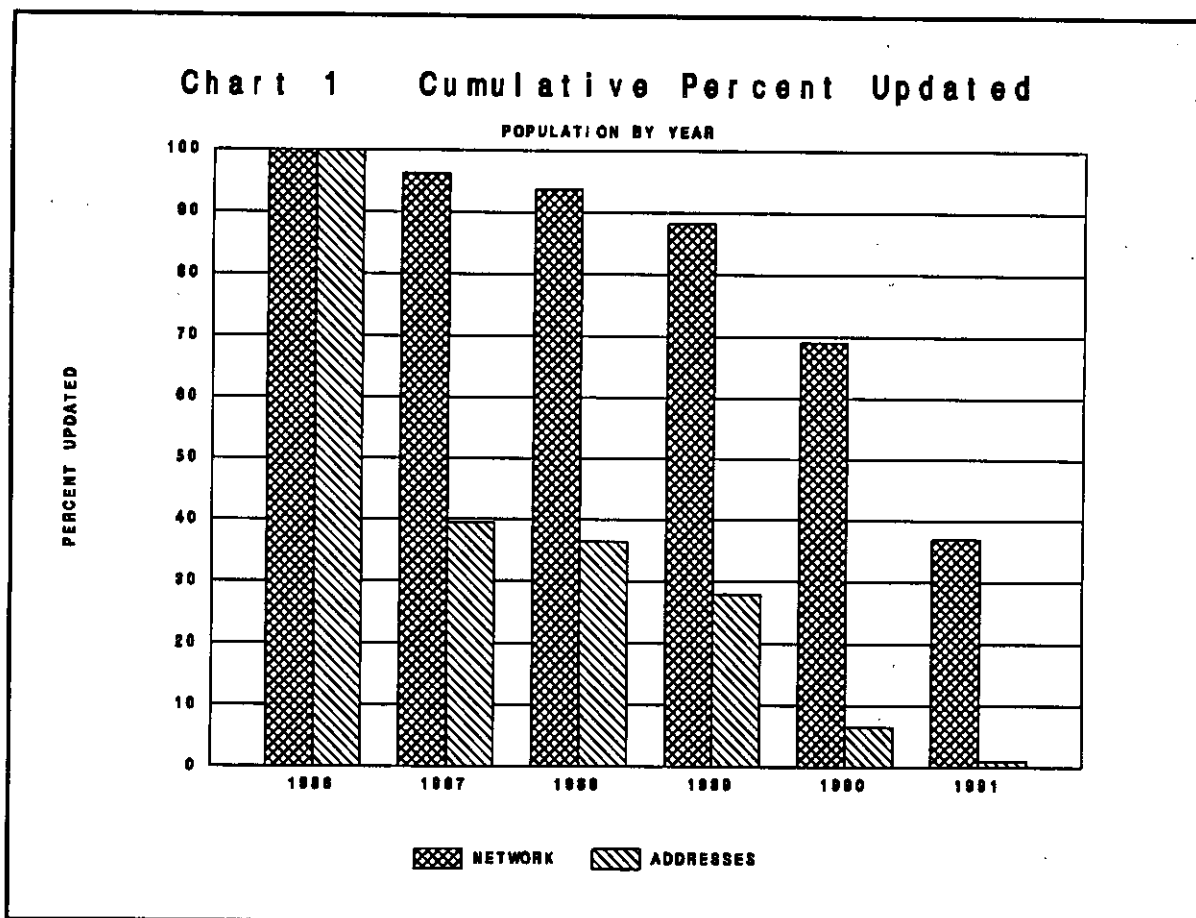
The Street Network Files are designed to link to the 1991 Census geography. This linkage is achieved through block-face representative points. Ideally, all census data would be linked to block-face representative points but where a Street Network File is unavailable, the link is made to the enumeration area representative point. This ensures that all census data can be linked. Block-face representative points are represented in UTM coordinates and stored as an attribute of the block-face. Despite the linkage to the 1991 Census, it must also be stated clearly that the Street Network Files have NOT been updated using the information collected during the 1991 Census field operations. Consequently, the user should be aware that some streets and address ranges found in the census have not yet been added to the Street Network Files.

Chart 1 shows a distribution of reference dates for both network and address components of street networks. To show a truer picture, the CSDs have been weighted by population rather than counting CSDs equally. Each bar in the chart shows the cumulative percentage of population covered by street network files updated to the specified year. The percentages are calculated using the total population in all street network files as the base. CSDs containing 37% of the population have had the network component updated to 1991 and 88% by population have been updated to at least 1988.

However, the corresponding updating of address information has not been done for many of the Street Network Files. Only 1% by population has been updated to 1991 and only 28% to at least 1988. Nearly two thirds of the street networks (by population) still have address information with a 1986 reference date. Consequently, address ranges are likely to be significantly incomplete for many of the high growth areas of the Street Network Files. For those which have not been updated since 1986, the effects will vary according to the extent of growth and change over the last five years. The lack of updating to address ranges reflects the fact that the Census has been the principal source of address information and the address updates from the 1991 Census have not been applied to the Street Network Files.

### **2.3 Positional Accuracy - Absolute vs. Relative**

The primary purpose of street networks has been to support Census mapping and geocoding. Consequently, positional accuracy of the nodes in the network compared to ground truth was not a serious concern. Relative positional accuracy has been important to producing reference maps and, in this respect, topological correctness is regarded as essential. Both geocoding and the retrieval and display of Census data require consistency between street network features and enumeration area boundary files. A number of procedures and verifications were implemented to ensure this type of consistency (Refer to the EA Digital Boundary File Data Quality Statement for further information).



### Data Quality Statement - Cont'd

However, the absolute positional accuracy of network nodes varies considerably even within the same street network files. Some limited studies of positional accuracy have indicated that errors of up to and occasionally beyond 100 metres do occur. Such problems are generally localized in small portions of a Street Network File and arise from three sources:

- 1) digitizing from hand-drawn maps of streets when up-to-date maps were not available;
- 2) variable scales of update source materials;
- 3) inconsistency in control points used for digitizing the same area at different times.

The quality of data in each Street Network File depends on the quality of the inputs and on the quality of the manual processes which are used to capture the available information. In particular, it should be noted that the quality cannot exceed the quality of the base maps used. The actual type and scales used varies considerably from one Street Network File to another. Manual digitizing is subject to normal error rates for this operation, bearing in mind that the training and expertise of the staff has varied over time. The entry of attribute data is subject to typical error rates for data capture, but the actual error rates have not been measured.

## **Data Quality Statement - Cont'd**

Most updates to street network files involve adding new features or missing attributes to existing features. However, some updates which involve the deletion or modification of existing features in a street network file are more difficult because it is necessary to identify that the existing network has changed -- a process which continues to rely on manual comparisons of maps and is relatively prone to missing changes.

### **2.4 Logical Consistency - A Result of Integration**

Logical consistency is required within and between street network files. The processing of digitized data within ARC/INFO® ensures internal consistency of the topology entered. Undershoots and overshoots are examined and corrected and closure of polygons is verified. New pieces of network are edgematched to fit into the existing street network file. It is important to ensure that the Street Network Files are consistent with other digital products, digital boundary files in particular.

The Street Network Files are processed by census subdivision, either single CSDs or groups of adjacent CSDs. An edgematching process ensures that boundaries of adjacent census subdivisions coincide when merged. This process often required manual intervention when boundaries differed too much to be "snapped" together in an automated fashion. A similar process applies on a common boundary between adjacent Street Network Files. It should also be noted that boundary files for areas not covered by street networks are generally adjusted to agree with the outer boundaries of street networks as these are usually more accurate. Normally, boundaries correspond to street network file features which would exist in their own right. In the cases where this was not true, an artificial feature corresponding to the boundary was created. In this release of the Street Network Files, for the first time, this type of feature has been created for enumeration area boundaries.

It should be stated that the consistency sought above relates specifically to the time reference of the 1991 Census. As time goes on and intercensal census subdivision boundary changes accumulate, the chances of discrepancies arising increases as these relationships are controlled manually.

### **2.5 Completeness - Non-Street Features**

While the Street Network Files contain many non-street features, e.g. railways, hydrography, parks, cliffs, the complete representation of these secondary features was neither intended nor guaranteed. In general, these were included where they appeared in base maps and update materials and were deemed to be of importance to street network file users. Also, the updating of these features may have been less rigorous than the street network and its attributes. The enumeration area boundary features mentioned in section 2.4 are not complete - 111 of these segments were not included during processing, but are documented.

### **2.6 Limitations on Use**

The major limitation in using these files is likely to be the lack of address range information in areas of population growth. Thus, if the files are to be used for computer-aided dispatch or similar purposes which require an address to be matched to a block-face, it may be necessary to supplement the file with local knowledge. In addition, because absolute positional accuracy is not the priority in the creation of the SNFs, these files are NOT recommended for engineering applications.

## **Data Quality Statement - Cont'd**

### **2.7 Two Formats - What are the Differences?**

The Street Network Files are being made available in two formats: the AMF format and the ARC/INFO® Export format. There are a few differences between the two versions.

The ARC/INFO® Export versions of the Street Network Files have been edgematched, whereas the AMF versions have not; however, all gaps of 20 meters or more in the AMF version have been identified and corrected.

During the loading of the AMF versions into ARC/INFO® to create the ARC/INFO® versions, some features were found to be coincident (i.e. they were defined by the same arc). An example would be a municipal limit that followed a river. Where this occurred only one of the features was retained. Preference was given to addressable features and physical features.

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### 3 - REFERENCE DATES OF THE SNF

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The following list provides the reference dates of the street network, as well as address information on census subdivisions (CSDs) found within census metropolitan areas (CMAs). The reference dates that appear in the two columns below are based on the information at our disposal at the time of the last SNF update. The first column pertains to the reference dates of the street network, while the second column refers to the address information.

| CSD Name | CSD Type | Reference Date |  |
|----------|----------|----------------|--|
|----------|----------|----------------|--|

---

#### NEWFOUNDLAND

##### ST-JOHN'S CMA

|                |   |         |         |
|----------------|---|---------|---------|
| St. John's     | C | Dec. 89 | Dec. 89 |
| Wedgewood Park | T | Dec. 89 | Dec. 89 |

#### NOVA SCOTIA

##### HALIFAX DARTMOUTH CMA

|           |   |         |         |
|-----------|---|---------|---------|
| Bedford   | T | Jan. 90 | June 87 |
| Dartmouth | C | June 91 | Aug. 89 |
| Halifax   | C | Nov. 91 | June 86 |

#### NEW BRUNSWICK

##### MONCTON CA

|              |     |         |         |
|--------------|-----|---------|---------|
| Coverdale    | PCA | June 86 | June 86 |
| Dieppe       | T   | Jan. 91 | June 86 |
| Dorchester   | PCA | June 86 | June 86 |
| Dorchester   | VL  | June 86 | June 86 |
| Fort Folly 1 | R   | June 86 | June 86 |
| Saint-Joseph | VL  | June 86 | June 86 |
| Hillsborough | PCA | June 86 | June 86 |
| Hillsborough | VL  | June 90 | June 86 |
| Moncton      | C   | Jan. 91 | June 86 |
| Moncton      | PCA | June 86 | June 86 |
| Salisbury    | VL  | June 90 | June 86 |
| Riverview    | T   | Jan. 91 | June 86 |

**SAINT JOHN CMA**

|            |   |         |         |
|------------|---|---------|---------|
| Saint John | C | Dec. 90 | June 86 |
|------------|---|---------|---------|

**FREDERICTON CA**

|              |   |         |         |
|--------------|---|---------|---------|
| Devon 30     | R | June 86 | June 86 |
| Fredericton  | C | Jan. 91 | June 86 |
| St Mary's 24 | R | June 86 | June 86 |

**QUEBEC****CHICOUTIMI - JONQUIERE CMA**

|            |   |         |         |
|------------|---|---------|---------|
| Chicoutimi | V | Apr. 91 | June 86 |
| Jonquière  | V | Apr. 91 | Apr. 88 |
| La Baie    | V | Mar. 89 | Mar. 89 |

**MONTREAL CMA**

|                 |   |         |         |
|-----------------|---|---------|---------|
| Anjou           | V | June 89 | June 86 |
| Saint-Léonard   | V | June 89 | June 86 |
| Beauharnois     | V | June 86 | June 86 |
| Beloeil         | V | Jan. 91 | June 86 |
| Blainville      | V | Dec. 90 | June 86 |
| Boisbriand      | V | Apr. 91 | Oct. 88 |
| Bois-des-Filion | V | Mar. 89 | June 86 |
| Boucherville    | V | May 91  | June 89 |
| Brossard        | V | June 91 | June 89 |
| Candiac         | V | May 91  | Apr. 89 |
| Carignan        | V | May 91  | June 86 |
| Chambly         | V | Apr. 91 | June 86 |
| Charlemagne     | V | May 91  | June 86 |
| Chateauguay     | V | May 91  | June 86 |
| Deux-Montagnes  | V | May 91  | Aug. 89 |
| Dorion          | V | May 89  | May 89  |
| L'Île-Dorval    | V | June 89 | June 86 |
| Dorval          | C | June 89 | June 86 |
| Lachine         | V | June 89 | June 86 |
| Greenfield Park | V | May 91  | May 89  |
| Kirkland        | V | Jan. 90 | June 86 |
| Beaconsfield    | V | Jan. 90 | June 86 |
| L'Île-Perrot    | V | Mar. 91 | Aug. 89 |
| La Prairie      | V | June 91 | June 86 |
| Lachenaie       | V | Mar. 91 | June 86 |
| Lasalle         | V | June 89 | June 86 |
| Verdun          | V | June 89 | June 86 |
| Laval           | V | May 91  | Sept 89 |
| Le Gardeur      | V | May 91  | Nov. 88 |

|                               |    |         |         |
|-------------------------------|----|---------|---------|
| Lemoyne                       | V  | June 91 | Nov. 87 |
| Lery                          | V  | May 91  | May 89  |
| Longueuil                     | V  | May 91  | Mar. 89 |
| Lorraine                      | V  | May 91  | July 88 |
| Maple Grove                   | V  | May 91  | May 89  |
| Mascouche                     | V  | May 91  | June 89 |
| Mirabel                       | V  | May 91  | June 86 |
| Mont-Royal                    | V  | June 89 | June 86 |
| Outremont                     | V  | June 89 | June 86 |
| Mont-Saint-Hilaire            | V  | June 86 | June 86 |
| Montréal                      | V  | June 89 | June 86 |
| Westmount                     | V  | June 89 | June 86 |
| Montréal-Est                  | V  | June 89 | June 86 |
| Montréal-Nord                 | V  | June 89 | June 86 |
| Montréal-Ouest                | V  | June 89 | June 86 |
| Côte-Saint-Luc                | C  | June 89 | June 86 |
| Hampstead                     | V  | June 89 | June 86 |
| Saint-Pierre                  | V  | June 89 | June 86 |
| Otterburn Park                | V  | Apr. 91 | Nov. 88 |
| Pierrefonds                   | V  | Apr. 90 | June 86 |
| Roxboro                       | V  | Apr. 90 | June 86 |
| Saint-Geneviève               | V  | Apr. 90 | June 86 |
| Pincourt                      | V  | Mar. 88 | June 86 |
| Pointe-Claire                 | V  | June 89 | June 86 |
| Dollard-des-Ormeaux           | V  | June 89 | June 86 |
| Repentigny                    | V  | Aug. 89 | June 86 |
| Richelieu                     | V  | May 91  | June 86 |
| Rosemère                      | V  | May 91  | June 86 |
| Saint-Amable                  | V  | Nov. 90 | Jan. 89 |
| Saint-Basile-le-Grand         | V  | May 91  | June 86 |
| Saint-Bruno-de-Montarville    | V  | May 91  | June 86 |
| Saint-Eustache                | V  | Jan. 91 | June 89 |
| Saint-Hubert                  | V  | May 91  | June 86 |
| Saint-Lambert                 | V  | Jan. 91 | June 89 |
| Saint-Laurent                 | V  | June 89 | June 86 |
| Saint-Mathieu-de-Beloeil      | V  | May 91  | Mar. 89 |
| Saint-Raphael-de-L'Île-Bizard | P  | June 89 | June 86 |
| Saint-Julie                   | V  | May 91  | Nov. 88 |
| Sainte-Marthe-sur-le-Lac      | V  | May 91  | June 86 |
| Sainte-Thérèse                | V  | May 91  | Jan. 89 |
| Senneville                    | VL | June 89 | June 86 |
| Baie-D'Urfe                   | V  | June 89 | June 86 |
| Sainte-Anne-de-Bellevue       | V  | June 89 | June 86 |
| Terrasse-Vaudreuil            | SD | May 91  | June 86 |
| Varenes                       | V  | May 91  | June 86 |
| L'Île-Cadieux                 | V  | Jan. 88 | June 86 |
| Vaudreuil                     | V  | Apr. 91 | June 86 |
| Vaudreuil-sur-le-Lac          | VL | Apr. 91 | June 86 |

**OTTAWA - HULL CMA (Quebec Part)**

|               |    |         |         |
|---------------|----|---------|---------|
| Aylmer        | V  | Aug. 90 | Aug. 90 |
| Buckingham    | V  | Aug. 89 | Aug. 89 |
| Chelsea       | CT | Aug. 89 | Aug. 89 |
| Gatineau      | V  | Sept 91 | Feb. 91 |
| Cantley       | SD | Dec. 88 | June 86 |
| Hull          | V  | Sept 89 | Sept 89 |
| La Pêche      | SD | Mar. 88 | June 86 |
| Masson        | V  | May 91  | Mar. 88 |
| Pontiac       | SD | Mar. 88 | Mar. 88 |
| Val-des-Monts | SD | Mar. 88 | Mar. 88 |

**QUEBEC CMA**

|                               |    |         |         |
|-------------------------------|----|---------|---------|
| Beauport                      | V  | May 91  | Feb. 87 |
| Bernières                     | SD | May 90  | June 86 |
| Cap-rouge                     | V  | Jan. 90 | June 86 |
| Charlesbourg                  | V  | May 91  | July 88 |
| Charny                        | V  | May 91  | Dec. 88 |
| L' Ancienne-Lorette           | V  | Jan. 90 | June 86 |
| Loretteville                  | V  | May 91  | June 86 |
| Wendake                       | R  | May 91  | June 86 |
| Notre-Dame-des-Anges          | P  | May 91  | June 86 |
| Québec                        | V  | May 91  | June 86 |
| Saint-Étienne-de-Lauzon       | SD | May 91  | June 86 |
| Saint-Jean-Chrysostome        | V  | May 91  | June 86 |
| Saint-Lambert-de-Lauzon       | P  | June 91 | June 86 |
| Saint-Nicolas                 | V  | Jan. 91 | June 86 |
| Saint-Rédempteur              | V  | May 91  | June 86 |
| Saint-Romuald                 | V  | May 91  | June 86 |
| Sainte-Foy                    | V  | May 91  | June 86 |
| Sainte-Hélène-de-Breakeyville | P  | May 91  | June 86 |
| Sillery                       | V  | Jan. 90 | June 86 |
| Vanier                        | V  | May 91  | June 86 |

**SHERBROOKE CMA**

|            |   |         |         |
|------------|---|---------|---------|
| Sherbrooke | V | Sept 90 | June 86 |
|------------|---|---------|---------|

**TROIS-RIVIÈRES CMA**

|                      |   |         |         |
|----------------------|---|---------|---------|
| Cap-de-la-Madeleine  | V | June 91 | July 88 |
| Trois-Rivières       | V | June 91 | June 86 |
| Trois-Rivières-Ouest | V | June 91 | June 86 |

**SAINT-JÉRÔME CA**

|              |   |         |         |
|--------------|---|---------|---------|
| Saint-Jérôme | V | Sept 90 | June 86 |
|--------------|---|---------|---------|



## ONTARIO

### **BRANTFORD CA**

|           |    |         |         |
|-----------|----|---------|---------|
| Brantford | C  | Nov. 90 | June 86 |
| Brantford | TP | Apr. 91 | June 86 |
| Paris     | T  | June 86 | June 86 |

### **GUELPH CA**

|         |    |         |         |
|---------|----|---------|---------|
| Guelph  | C  | June 91 | Aug. 90 |
| Eramosa | TP | Jan. 91 | June 86 |
| Guelph  | TP | Jan. 91 | June 86 |

### **HAMILTON CMA**

|              |    |         |         |
|--------------|----|---------|---------|
| Ancaster     | T  | Oct. 87 | Oct. 87 |
| Burlington   | C  | June 86 | June 86 |
| Dundas       | T  | Sept 87 | Sept 87 |
| Flamborough  | T  | Dec. 87 | Dec. 87 |
| Glanbrook    | TP | Oct. 87 | Oct. 87 |
| Grimsby      | T  | June 91 | June 88 |
| Hamilton     | C  | Mar. 87 | Mar. 87 |
| Stoney Creek | C  | Jan. 90 | Jan. 90 |

### **KINGSTON CA**

|          |    |         |         |
|----------|----|---------|---------|
| Kingston | C  | Oct. 90 | Oct. 90 |
| Kingston | TP | Sept 90 | Sept 90 |

### **KITCHENER CMA**

|                |    |         |         |
|----------------|----|---------|---------|
| Cambridge      | C  | Aug. 91 | June 86 |
| Kitchener      | C  | Aug. 91 | June 86 |
| North Dumfries | TP | Aug. 91 | June 86 |
| Waterloo       | C  | Aug. 91 | June 86 |
| Woolwich       | TP | Aug. 91 | June 86 |

### **LONDON CMA**

|                  |    |         |         |
|------------------|----|---------|---------|
| Delaware         | TP | June 86 | June 86 |
| Lobo             | TP | Apr. 89 | Apr. 89 |
| London           | C  | June 88 | June 86 |
| London           | TP | May 89  | May 89  |
| North Dorchester | TP | May 91  | June 86 |
| Port Stanley     | VL | Jan. 90 | June 86 |
| Southwold        | TP | Aug. 90 | June 86 |
| West Nissouri    | TP | Jan. 90 | June 86 |
| Westminster      | TP | Jan. 89 | June 86 |

|            |    |         |         |
|------------|----|---------|---------|
| Belmont    | VL | Jan. 90 | May 88  |
| St. Thomas | C  | Jan. 90 | June 86 |
| Yarmouth   | TP | Aug. 90 | June 86 |

#### **NORTH BAY CA**

|                 |    |         |         |
|-----------------|----|---------|---------|
| East Ferris     | TP | June 86 | June 86 |
| Nipissing 10    | R  | June 86 | June 86 |
| North Bay       | C  | May 91  | June 86 |
| North Himsworth | TP | May 89  | June 86 |

#### **OSHAWA CMA**

|           |   |         |         |
|-----------|---|---------|---------|
| Newcastle | T | Sept 89 | Sept 89 |
| Oshawa    | C | Sept 89 | Sept 89 |
| Whitby    | T | Sept 89 | Sept 89 |

#### **OTTAWA-HULL CMA (Ontario Part)**

|                 |    |         |         |
|-----------------|----|---------|---------|
| Clarence        | TP | May 91  | June 86 |
| Cumberland      | TP | June 89 | Feb. 87 |
| Gloucester      | C  | Mar. 91 | Mar. 91 |
| Goulbourn       | TP | June 89 | June 86 |
| Kanata          | C  | June 89 | May 88  |
| Nepean          | C  | June 89 | June 86 |
| Osgoode         | TP | July 89 | June 86 |
| Ottawa          | C  | Oct. 90 | Dec. 89 |
| Rideau          | TP | June 89 | May 88  |
| Rockcliffe Park | VL | June 89 | June 86 |
| Rockland        | T  | Sept 91 | May 88  |
| Vanier          | C  | June 89 | Nov. 88 |
| West Carleton   | TP | June 89 | June 88 |

#### **PETERBOROUGH CA**

|              |   |         |         |
|--------------|---|---------|---------|
| Peterborough | C | Mar. 91 | June 86 |
|--------------|---|---------|---------|

#### **SARNIA CA**

|                   |    |         |         |
|-------------------|----|---------|---------|
| Moore             | TP | June 86 | June 86 |
| Point Edward      | VL | Jan. 89 | Jan. 89 |
| Sarnia-Clearwater | C  | June 91 | June 86 |
| Sarnia 45         | R  | June 91 | Aug. 86 |

**SAULT STE. MARIE CA**

|                                    |    |         |         |
|------------------------------------|----|---------|---------|
| Garden River 14                    | R  | June 86 | June 86 |
| Macdonald Meredith<br>and Aberdeen | TP | June 86 | June 86 |
| Laird                              | TP | June 86 | June 86 |
| Prince                             | TP | June 86 | June 86 |
| Sault Ste. Marie                   | C  | June 89 | June 89 |
| Rankin Location 15D                | R  | June 89 | June 89 |

**ST. CATHARINES - NIAGARA CMA**

|                     |    |         |         |
|---------------------|----|---------|---------|
| Fort Erie           | T  | Oct. 90 | June 88 |
| Lincoln             | T  | July 90 | July 90 |
| Niagara Falls       | C  | Mar. 90 | Mar. 90 |
| Niagara-On-The-Lake | T  | Oct. 90 | Mar. 90 |
| Pelham              | T  | July 90 | July 90 |
| Port Colborne       | C  | Nov. 91 | Mar. 90 |
| St. Catharines      | C  | July 90 | July 90 |
| Thorold             | C  | Apr. 91 | Mar. 90 |
| Wainfleet           | C  | June 88 | June 88 |
| Welland             | TP | Oct. 90 | Oct. 90 |

**SUDBURY CMA**

|         |   |         |         |
|---------|---|---------|---------|
| Sudbury | C | July 88 | July 88 |
|---------|---|---------|---------|

**THUNDER BAY CA**

|             |   |         |         |
|-------------|---|---------|---------|
| Thunder Bay | C | Jan. 91 | June 86 |
|-------------|---|---------|---------|

**TORONTO CMA**

|                  |     |         |         |
|------------------|-----|---------|---------|
| Ajax             | T   | Sept 89 | Sept 89 |
| Aurora           | T   | June 90 | Aug. 89 |
| Brampton         | C   | Jan. 90 | Jan. 89 |
| East Gwillimbury | T   | Oct. 89 | June 86 |
| East York        | BOR | Jan. 90 | Jan. 90 |
| Etobicoke        | C   | Jan. 90 | June 86 |
| Georgina         | TP  | Nov. 89 | June 86 |
| Georgina Island  | T   | Nov. 89 | June 86 |
| Halton Hills     | T   | June 86 | June 86 |
| Milton           | T   | May 88  | May 88  |
| King             | TP  | Jan. 89 | June 86 |
| Markham          | T   | Mar. 90 | June 86 |
| Mississauga      | C   | Jan. 90 | June 86 |
| Newmarket        | T   | Mar. 90 | Aug. 89 |
| North York       | C   | Jan. 90 | June 86 |
| Oakville         | T   | Jan. 89 | Jan. 89 |
| Pickering        | T   | Dec. 88 | June 86 |

|                        |    |         |         |
|------------------------|----|---------|---------|
| Richmond Hill          | T  | Aug. 90 | Jan. 89 |
| Scarborough            | C  | Jan. 90 | June 86 |
| Toronto                | C  | Jan. 90 | June 86 |
| Uxbridge               | TP | Sept 89 | Sept 89 |
| Vaughan                | C  | July 90 | June 86 |
| Whitchurch-Stouffville | T  | July 90 | June 86 |
| York                   | C  | Jan. 90 | Jan. 90 |

#### **WINDSOR CMA**

|                  |    |         |         |
|------------------|----|---------|---------|
| Colchester North | TP | Jan. 86 | Jan. 86 |
| Essex            | T  | June 86 | June 86 |
| Windsor          | C  | July 88 | June 86 |

#### **WOODSTOCK CA**

|           |   |         |         |
|-----------|---|---------|---------|
| Woodstock | C | June 86 | June 86 |
|-----------|---|---------|---------|

#### **BELLEVILLE CA**

|            |   |         |         |
|------------|---|---------|---------|
| Belleville | C | Dec. 88 | June 86 |
|------------|---|---------|---------|

#### **STRATFORD CA**

|           |   |         |         |
|-----------|---|---------|---------|
| Stratford | C | June 86 | June 86 |
|-----------|---|---------|---------|

#### **OUTSIDE CMA/CA**

|                        |    |         |         |
|------------------------|----|---------|---------|
| <b>BROCK (Ontario)</b> |    |         |         |
| Brock                  | TP | Sept 89 | Sept 89 |

|                         |   |         |         |
|-------------------------|---|---------|---------|
| <b>FERGUS (Ontario)</b> |   |         |         |
| Fergus                  | T | Feb. 89 | Feb. 89 |

|                         |    |         |         |
|-------------------------|----|---------|---------|
| <b>SCUGOG (Ontario)</b> |    |         |         |
| Scugog                  | TP | Sept 89 | Sept 89 |
| Scugog 34               | R  | Sept 89 | Sept 89 |

|                            |    |         |         |
|----------------------------|----|---------|---------|
| <b>WELLESLEY (Ontario)</b> |    |         |         |
| Wellesley                  | TP | Aug. 91 | Aug. 88 |

|                               |    |         |         |
|-------------------------------|----|---------|---------|
| <b>WEST LINCOLN (Ontario)</b> |    |         |         |
| West Lincoln                  | TP | Oct. 90 | Oct. 90 |

|                         |    |         |         |
|-------------------------|----|---------|---------|
| <b>WILMOT (Ontario)</b> |    |         |         |
| Wilmot                  | TP | Aug. 91 | Aug. 88 |

## MANTOBA

### WINNIPEG CMA

|                     |    |         |         |
|---------------------|----|---------|---------|
| East St. Paul       | RM | June 86 | June 86 |
| Ritchot             | RM | June 86 | June 86 |
| Rosser              | RM | June 86 | June 86 |
| Springfield         | RM | June 86 | June 86 |
| St. Francois Xavier | RM | June 86 | June 86 |
| Tache               | RM | June 86 | June 86 |
| West St. Paul       | RM | June 86 | June 86 |
| Winnipeg            | C  | Feb. 91 | Mar. 89 |

### OUTSIDE CMA/CA

|                   |    |         |         |
|-------------------|----|---------|---------|
| BENITO (Manitoba) |    |         |         |
| Benito            | VL | June 86 | June 86 |

## SASKATCHEWAN

### REGINA CMA

|                  |    |         |         |
|------------------|----|---------|---------|
| Lumsden          | T  | June 86 | June 86 |
| Regina           | C  | June 86 | June 86 |
| Sherwood No. 159 | RM | June 86 | June 86 |
| Grand Coulee     | VL | Jan. 91 | June 86 |

### SASKATOON CMA

|           |   |        |         |
|-----------|---|--------|---------|
| Saskatoon | C | May 91 | June 86 |
|-----------|---|--------|---------|

## ALBERTA

### CALGARY CMA

|         |   |         |         |
|---------|---|---------|---------|
| Calgary | C | Feb. 91 | July 88 |
|---------|---|---------|---------|

### EDMONTON CMA

|          |   |         |        |
|----------|---|---------|--------|
| Edmonton | C | Oct. 91 | May 89 |
|----------|---|---------|--------|

### LETHBRIDGE CA

|            |   |         |         |
|------------|---|---------|---------|
| Lethbridge | C | Mar. 91 | June 86 |
|------------|---|---------|---------|

### RED DEER CA

|          |   |         |         |
|----------|---|---------|---------|
| Red Deer | C | Jan. 91 | June 86 |
|----------|---|---------|---------|

## BRITISH COLUMBIA

### **KAMLOOPS CA**

|            |   |         |         |
|------------|---|---------|---------|
| Kamloops   | C | Mar. 89 | June 86 |
| Kamloops 1 | R | June 86 | June 86 |

### **KELOWNA CA**

|                  |     |         |         |
|------------------|-----|---------|---------|
| Duck Lake 7      | R   | Feb. 90 | Dec. 88 |
| Kelowna          | C   | Feb. 90 | Dec. 88 |
| Cen. Oka. Sub.   | SRD | June 86 | June 86 |
| Peachland        | DM  | June 86 | June 86 |
| Tsinstikeptum 9  | R   | June 86 | June 86 |
| Tsinstikeptum 10 | R   | June 86 | June 86 |

### **MATSQUI CA**

|         |    |        |        |
|---------|----|--------|--------|
| Matsqui | DM | May 89 | May 89 |
|---------|----|--------|--------|

### **PRINCE GEORGE CA**

|               |   |         |         |
|---------------|---|---------|---------|
| Prince George | C | Oct. 88 | Feb. 88 |
|---------------|---|---------|---------|

### **VANCOUVER CMA**

|                            |     |         |         |
|----------------------------|-----|---------|---------|
| Burnaby                    | DM  | June 91 | June 86 |
| Coquitlam                  | DM  | Apr. 91 | June 86 |
| Coquitlam 1                | R   | Apr. 91 | June 86 |
| Delta                      | DM  | Jan. 90 | June 89 |
| Tsawassen                  | R   | Jan. 90 | June 89 |
| Musqueam 4                 | R   | Jan. 90 | June 89 |
| Anmore                     | VL  | June 86 | June 86 |
| Barnston Island 3          | R   | June 86 | June 86 |
| Belcarra                   | VL  | June 86 | June 86 |
| Greater Vancouver, Subd. A | SDR | June 86 | June 86 |
| Lions Bay                  | VL  | June 86 | June 86 |
| Katzie 2                   | R   | June 86 | June 86 |
| Langley                    | C   | June 86 | June 86 |
| Langley DM                 | DM  | Aug. 91 | June 86 |
| Matsqui 4                  | R   | June 86 | June 86 |
| McMillan Island 6          | R   | June 86 | June 86 |
| Katzie 1                   | R   | June 86 | June 86 |
| Langley 5                  | R   | June 86 | June 86 |
| Maple Ridge                | DM  | Mar. 90 | June 86 |
| Whonnock 1                 | R   | June 86 | June 86 |
| New Westminster            | C   | Apr. 89 | June 86 |
| North Vancouver            | C   | Jan. 91 | June 86 |
| Mission                    | R   | Jan. 91 | June 86 |
| North Vancouver            | DM  | Jan. 91 | June 86 |

|                           |     |         |         |
|---------------------------|-----|---------|---------|
| Burnard Inlet 3           | R   | Jan. 91 | June 86 |
| Seymour Creek 2           | R   | Jan. 91 | June 86 |
| Pitt Meadows              | DM  | June 86 | June 86 |
| Port Coquitlam            | C   | May 91  | June 86 |
| Coquitlam 2               | R   | May 91  | June 86 |
| Port Moody                | C   | Jan. 90 | Jan. 89 |
| Richmond                  | C   | Feb. 91 | June 86 |
| Surrey                    | DM  | June 91 | June 86 |
| University Endowment Area | SDR | June 86 | June 86 |
| Vancouver                 | C   | Oct. 90 | June 86 |
| Musqueam 2                | R   | June 86 | June 86 |
| West Vancouver            | DM  | June 91 | June 86 |
| Capilano 5                | R   | June 91 | June 86 |
| White Rock                | C   | Jan. 89 | June 86 |
| Semiahmoo                 | R   | Jan. 89 | June 86 |

#### VICTORIA CMA

|                 |      |         |         |
|-----------------|------|---------|---------|
| Becher Bay 1    | R    | June 86 | June 86 |
| Becher Bay 2    | R    | June 86 | June 86 |
| Capital Subd. B | SDR  | June 86 | June 86 |
| Colwood         | C    | Oct. 89 | Oct. 89 |
| Esquimalt       | R    | June 86 | June 86 |
| Metchosin       | DM   | June 89 | June 89 |
| New Songhees 1  | CA   | June 86 | June 86 |
| View Royal      |      | Oct. 89 | Oct. 89 |
| Capital Subd.   | CSDR | June 86 | June 86 |
| Sooke 1         | R    | June 86 | June 86 |
| Sooke 2         | R    | June 86 | June 86 |
| Central Saanich | DM   | June 88 | June 86 |
| East Saanich    | R    | June 86 | June 86 |
| South Saanich   | R    | June 86 | June 86 |
| Esquimalt       | DM   | Sept 89 | Sept 89 |
| Cole Bay 3      | R    | June 86 | June 86 |
| North Saanich   | DM   | Jan. 90 | June 86 |
| Union Bay 4     | R    | June 86 | June 86 |
| Oak Bay         | DM   | Jan. 90 | Jan. 90 |
| Saanich         | DM   | Feb. 89 | June 86 |
| Sidney          | T    | June 86 | June 86 |
| Victoria        | C    | Mar. 88 | Mar. 88 |

#### OUTSIDE CMA/CA

|                 |     |         |         |
|-----------------|-----|---------|---------|
| Gordon River 2  | R   | June 86 | June 86 |
| Pacheena 1      | R   | June 86 | June 86 |
| Capital Subd. D | SDR | June 86 | June 86 |

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## 4 - TECHNICAL SPECIFICATIONS

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### 4.1 Physical Media Description

THE PHYSICAL FORMAT OF THE SNF IS DESCRIBED IN THE LETTER WHICH ACCOMPANIES THIS PRODUCT.

### 4.2 How to Use the SNF

The SNF is in ARC/Export format. It was created using the following ARC commands:

```
EXPORT COVER NET_ddd NET_ddd.E00
```

```
EXPORT COVER PNT_ddd PNT_ddd.E00
```

where **ddd** is the code of the CMA included in the coverage.

The ARC/Info coverage can be restored using the following commands:

```
IMPORT COVER NET_ddd.E00 COVER
```

```
IMPORT COVER PNT_ddd.E00 COVER
```

where **COVER** is the name selected by the user.



### 4.3 Info Tables

The execution of the commands outlined in the previous section will result in the creation of a coverage called COVER and the following "Info tables".

DATAFILE NAME: COVER.AAT

20 ITEMS: STARTING IN POSITION 1

| COL | ITEM NAME    | WIDTH | OPUT | TYP | N.DEC | ALTERNATE NAME |
|-----|--------------|-------|------|-----|-------|----------------|
| 1   | FNODE#       | 4     | 5    | B   | 0     |                |
| 5   | TNODE#       | 4     | 5    | B   | 0     |                |
| 9   | LPOLY#       | 4     | 5    | B   | 0     |                |
| 13  | RPOLY#       | 4     | 5    | B   | 0     |                |
| 17  | LENGTH       | 8     | 18   | F   | 5     |                |
| 25  | COVER#       | 4     | 5    | B   | 0     |                |
| 29  | COVER-ID     | 4     | 8    | B   | 0     |                |
| 33  | ARC_ID       | 8     | 8    | I   | -     |                |
| 41  | LPOLY_ID     | 8     | 8    | I   | -     | POLY_G_ID      |
| 49  | RPOLY_ID     | 8     | 8    | I   | -     | POLY_D_ID      |
| 57  | CLASS        | 3     | 3    | C   | -     | CLASSE         |
| 60  | NAME         | 20    | 20   | C   | -     | NOM            |
| 80  | TYPE         | 2     | 2    | C   | -     |                |
| 82  | DIRECTION    | 2     | 2    | C   | -     |                |
| 84  | ADDR_FM_LEFT | 5     | 5    | I   | -     | ADR_DEB_G      |
| 89  | ADDR_TO_LEFT | 5     | 5    | I   | -     | ADR_FIN_G      |
| 94  | ADDR_FM_RGHT | 5     | 5    | I   | -     | ADR_DEB_D      |
| 99  | ADDR_TO_RGHT | 5     | 5    | I   | -     | ADR_FIN_D      |
| 104 | CEN_LEFT     | 4     | 8    | B   | 0     | CEN_G          |
| 108 | CEN_RGHT     | 4     | 8    | B   | 0     | CEN_D          |

NOTE: A description of this table can be found on the following page → → →

**Item Description**  
**Arc Attribute Table**

- 1        **FNODE#:** From node # - maintained by ARC/INFO®
- 2        **TNODE#:** To node # - maintained by ARC/INFO®
- 3        **LPOLY#:** Left polygon # - maintained by ARC/INFO®
- 4        **RPOLY#:** Right polygon # - maintained by ARC/INFO®
- 5        **Length:** of arc - maintained by ARC/INFO®
- 6        **COVER#:** maintained by ARC/INFO®
- 7        **COVER-ID:** maintained by ARC/INFO®
- 8        **ARC\_ID:** Unique Arc Identifier
- 9        **LPOLY\_ID:** Identifier for polygon on left side of the arc
- 10       **RPOLY\_ID:** Identifier for polygon on right side of the arc
- 11       **Class:** A three character code which identifies the different types of features (see LIST A).
- 12       **Name:** A twenty character item containing the given name of the feature.
- 13       **Type:** A two character item used for street identification when the street is a single or multiple lane addressable street (see LIST B).
- 14       **Direction:** A two character code identifying the direction of the feature (see LIST C).
- 15       **ADDR\_FM\_LEFT:** The civic address found on the left-hand side of the arc at the FROM node.
- 16       **ADDR\_TO\_LEFT:** The civic address found on the left-hand side of the arc at the TO node.
- 17       **ADDR\_FM\_RGHT:** The civic address found on the right-hand side of the arc at the FROM node.
- 18       **ADDR\_TO\_RGHT:** The civic address found on the right-hand side of the arc at the TO node.
- 19       **CEN\_LEFT:** The identifier for the representative point of the block-face on the left
- 20       **CEN\_RGHT:** The identifier for the representative point of the block-face on the right

DATAFILE NAME: COVER.PAT

6 ITEMS: STARTING IN POSITION 1

| COL | ITEM NAME | WDTH | OPUT | TYP | N.DEC | ALTERNATE NAME |
|-----|-----------|------|------|-----|-------|----------------|
| 1   | AREA      | 8    | 18   | F   | 6     |                |
| 9   | PERIMETER | 8    | 18   | F   | 6     |                |
| 17  | COVER#    | 4    | 5    | B   | 0     |                |
| 21  | COVER-ID  | 4    | 5    | B   | 0     |                |
| 25  | POLY_ID   | 8    | 8    | I   | -     |                |
| 33  | CSD       | 7    | 7    | C   | -     | SDR            |

NOTE: A description of this table can be found on the following page → → →

**Item Description**  
**Polygon Attribute Table**

- 1**      **Area:** of polygon - maintained by ARC/INFO®
- 2**      **Perimeter:** of polygon - maintained by ARC/INFO®
- 3**      **COVER#:** Maintained by ARC/INFO®
- 4**      **COVER-ID:** Maintained by ARC/INFO®
- 5**      **POLY\_ID:** Identifier for polygon
- 6**      **CSD:** The Standard Geographical Classification code (the first two characters are province, the next two census division, the last three are census subdivision).

DATAFILE NAME: COVER.PAT

8 ITEMS: STARTING IN POSITION 1

| COL | ITEM NAME | WDTH | OPUT | TYP | N.DEC | ALTERNATE NAME |
|-----|-----------|------|------|-----|-------|----------------|
| 1   | AREA      | 8    | 18   | F   | 5     |                |
| 9   | PERIMETER | 8    | 18   | F   | 5     |                |
| 17  | COVER#    | 4    | 5    | B   | 0     |                |
| 21  | COVER-ID  | 4    | 5    | B   | 0     |                |
| 25  | POINT_ID  | 8    | 8    | I   | -     |                |
| 33  | CLASS     | 3    | 3    | C   | -     | CLASSE         |
| 36  | ADDRESS   | 5    | 5    | I   | -     | ADDRESSE       |
| 41  | NAME      | 20   | 20   | C   | -     | NOM            |

NOTE: A description of this table can be found on the following page → → →

**Item Description**  
**Point Attribute Table**

- 1      **Area:** Set to zero.
- 2      **Perimeter:** Set to zero.
- 3      **COVER#:** Maintained by ARC/INFO®
- 4      **COVER-ID:** Maintained by ARC/INFO®
- 5      **POINT\_ID:** Identifier for point feature
- 6      **Class:** A three character code which identifies the different types of features (see LIST A).
- 7      **Address:** The civic number of the feature.
- 8      **Name:** A twenty character item containing the given name of the feature.

**NOTE: NOT ALL CMAs/CAs HAVE POINT FEATURES.**

DATAFILE NAME: COVER.CEN

4 ITEMS: STARTING IN POSITION 1

| COL | ITEM NAME             | WIDTH | OPUT | TYP | N.DEC | ALTERNATE NAME |
|-----|-----------------------|-------|------|-----|-------|----------------|
| 1   | REPR. POINT-ID        | 4     | 8    | B   | 0     |                |
| 5   | UTM_ZONE              | 2     | 2    | I   | -     |                |
| 7   | UTM_X                 | 6     | 6    | I   | -     |                |
| 13  | UTM_Y                 | 7     | 7    | I   | -     |                |
|     | ** REDEFINED ITEMS ** |       |      |     |       |                |
| 1   | CEN_LEFT              | 4     | 8    | B   | 0     | CEN_G          |
| 1   | CEN_RGHT              | 4     | 8    | B   | 0     | CEN_D          |

NOTE: A description of this table can be found on the following page → → →

## **Item Description**

### **Representative Point File**

- 1**      **Representative Point-ID:** A unique representative point identifier.
- 2**      **UTM Zone:** The zone of the representative point.
- 3**      **UTM X:** The X coordinate of the representative point.
- 4**      **UTM Y:** The Y coordinate of the representative point.

#### **CEN\_LEFT**

**CEN\_RGHT** These redefine the Representative point-id to relate to the AAT items.



## LIST A: FEATURE CLASSIFICATION

### Roadway, railway and associated features category<sup>1</sup>

#### Feature Type

|            |  |
|------------|--|
| <b>b</b>   | Addressable Single street & public access lane                   |
| <b>E</b>   | Addressable Multiple street & public access lane                 |
| <b>HSI</b> | Highway single   |
| <b>HMU</b> | Highway multiple   |
| <b>HPR</b> | Highway proposed   |
| <b>HUC</b> | Highway under construction                                       |
| <b>H</b>   | Other Highway  |
| <b>BSI</b> | Bridge or Tunnel - Single Highway or Addressable Multiple street |
| <b>BMU</b> | Bridge or Tunnel - Multiple Highway                              |
| <b>BMN</b> | Bridge or Tunnel Addressable Single street                       |
| <b>B</b>   | Other Bridge or Tunnel   |
| <b>R</b>   | Other Railway features   |
| <b>RSI</b> | Railway single track   |
| <b>RMU</b> | Railway multiple track   |
| <b>RSG</b> | Railway siding or yard   |
| <b>FRA</b> | Ramp   |
| <b>FTR</b> | Trail  |
| <b>FWA</b> | Walkway  |
| <b>FEX</b> | Feature extension  |
| <b>F</b>   | Other Roadway Associated features                                |

---

<sup>1</sup> The characters "b" or "bb" denotes that the field is blank.

## LIST A: FEATURE CLASSIFICATION - CONT'D

### Hydrography and associated features category

#### Feature Type

|     |   |
|-----|---|
| WCR | Creek - defined using streamline          |
| WAQ | Aqueduct                                  |
| WCA | Canal                                     |
| WRI | River                                     |
| W   | Other Water body defined using streamline |
| SCR | Creek - defined using shoreline           |
| SAQ | Aqueduct                                  |
| SCA | Canal                                     |
| SRI | River                                     |
| SLA | Lake                                      |
| SPO | Pond                                      |
| SRE | Reservoir                                 |
| SOC | Ocean                                     |
| S   | Other Waterbody defined using shorelines  |
| IFA | Falls                                     |
| IDA | Dam                                       |
| I   | Other Associated features                 |

## LIST A: FEATURE CLASSIFICATION - CONT'D

### Delimiter and associated features category

#### Feature Type

|     |                                      |
|-----|--------------------------------------|
| MMU | Municipal Boundary                   |
| MPR | Provincial Boundary                  |
| MNA | National Boundary                    |
| MFE | Federal Electoral District Boundary  |
| M   | Other Political boundaries           |
| CEA | Enumeration Area Boundary            |
| C   | Other Geostatistical area boundaries |
| GPA | Park Boundary                        |
| GGO | Golf Boundary                        |
| GAI | Airport Boundary                     |
| GHO | Hospital Boundary                    |
| G   | Other Property boundaries            |
| GSH | Shopping Centre Boundary             |
| GSC | School Boundary                      |
| GCO | College Boundary                     |
| GUN | University Boundary                  |
| GJA | Jail Boundary                        |
| GCH | Church Boundary                      |
| GGT | Government Boundary                  |
| U   | Other Urban-Rural boundaries         |

## LIST A: FEATURE CLASSIFICATION - CONT'D

### General Features Category

#### Feature Type

|     |                           |
|-----|---------------------------|
| PPA | Park                      |
| PGO | Golf                      |
| PHO | Hospital                  |
| PAI | Airport                   |
| PSH | Shopping centre           |
| PSC | School                    |
| PCO | College                   |
| PUN | University                |
| PJA | Jail                      |
| PCH | Church                    |
| PGT | Government                |
| P   | Other Point features      |
| OFA | Cliff                     |
| ODI | Ditch                     |
| O   | Other Topography features |
| ZHY | Hydroline (Major)         |
| ZTE | Telephone line (Major)    |
| ZFE | Fence                     |
| ZPI | Pipeline                  |
| Z   | Other features            |
| D   | Alias features            |

## LIST B: STREET TYPE LIST

| Street Type | Interpretation      | Street Type | Interpretation   |
|-------------|---------------------|-------------|------------------|
| bb          | No type/Pas de type | LI          | Line             |
| AL          | Alley/Allée         | LK          | Link             |
| AU          | Autoroute           | LN          | Lane             |
| AV          | Avenue              | ME          | Mews             |
| BA          | Bay                 | MO          | Montée           |
| BP          | By Pass             | PL          | Place            |
| BV          | Boulevard           | PM          | Promenade        |
| CA          | Carré               | PR          | Park             |
| CH          | Chemin              | PU          | Plateau          |
| CL          | Circle/Cercle       | PY          | Parkway          |
| CN          | Concession          | RD          | Road             |
| CO          | Côte                | RG          | Rang             |
| CR          | Crescent/Croissant  | RI          | Rise             |
| CS          | Close               | RL          | Ruelle           |
| CT          | Court               | RO          | Route            |
| DR          | Drive               | RU          | Rue              |
| GA          | Garden              | RW          | Row              |
| GR          | Green               | SQ          | Square           |
| GT          | Gate                | ST          | Street           |
| GV          | Grove               | TL          | Trail            |
| HL          | Hill                | TR          | Terrace/Terrasse |
| HT          | Heights             | VW          | View             |
| HY          | Highway             | WK          | Walk             |
| JS          | Jardin              | WY          | Way              |

## LIST C: FEATURE DIRECTION

The feature direction is not to be mistaken as being the geographic direction of a feature, but the direction used within the feature's identification.

---

|    |                     |
|----|---------------------|
| N  | NORTH/NORD          |
| S  | SOUTH/SUD           |
| E  | EAST/EST            |
| W  | WEST                |
| O  | OUEST               |
| NE | NORTH-EAST/NORD-EST |
| NW | NORTH-WEST          |
| NO | NORD-OUEST          |
| SE | SOUTH-EAST/SUD-EST  |
| SW | SOUTH-WEST          |
| SO | SUD-OUEST           |

## **4.4 Data Item Regulations And Clarifications**

The following section lists regulations and clarifications concerning SNF data items. These SNF particulars may be of importance to the user in helping to reduce the possibility of misinterpretation.

### **- Addresses**

Addresses are identified on the right and left hand side of addressable features at from and to nodes defining the arc. The address is either a civic number or one of the following codes:

- 0 indicates a non-addressable feature (e.g. a river)
- 1 indicates that the address is unknown; this is the case when street network information has been updated, but address ranges have not
- 2 indicates an unknown address opposite a T-intersection
- 3 indicates that on a municipal boundary addresses are unknown on one side of the boundary; that is, for addressable features which follow a CSD limit, the addresses are found only on the one side of the feature that is contained within the CSD.

### **- Feature Name**

The Feature Name field is alphanumeric, where the first character must be either A to Z or 0 to 9. The remaining characters may contain a combination ranging from A to Z and ' . , - or blank characters. The name used for this field is the official name supplied by local expertise.

#### **The following is a description of regulations pertaining to feature name coding:**

When the name exceeds the maximum-field size of 20 characters, it is truncated (at the end). If the end result is meaningless, an abbreviation of the name may be used instead.

Feature names containing prefixes such as: "Des, de, le, la, les, 1', d', de 1', du, de la, The" are coded at the end of their names, with a--comma and a blank separating them from the name.

ex: De-l'école will-be coded: ECOLE, DE L'

Formats of the word Saint and Sainte are coded as ST, STE respectively. All numeric streets are coded numeric without any suffix such as "TH", "ND" etc.

If space permits, all non-addressable features have the feature's qualifier in the name field.

ex: OTTAWA LIMIT  
DOW'S LAKE

For CSDs found in the province of Quebec, the qualifier is coded before the feature name.

ex: LIMITE DE HULL  
LAC LEMAY

In feature names that contain a direction, such as "Sherbrooke est", the direction is not coded in the name but in the direction field.

## **Data Item Regulations And Clarifications - cont'd**

Special attention should be taken for street names containing "Montée" and "Côte" as they may appear in the street name or street type.

Non-street features which are unidentified are coded as:

"Qualifier" XXX

- where "Qualifier" is the type of feature such as lake, river

- where XXX is a three digit number assigned arbitrarily.

eg. LAKE 001 for an unidentified lake.

Private streets are coded as "PRIV." in all CSDs. Streets undergoing construction in Quebec CSDs are coded as "E.C." ("en construction"), while in other CSDs they are coded as "U.C." (under construction).

Proposed streets in Quebec CSDs will be coded as "PROJ" (projetées), and in other CSDs as "PROP" (proposed).

Railway yards will be coded: (name of railway) YARD XXX where XXX (is a unique number assigned arbitrarily).

ex: CNR YARD 001.

- A **Representative Point** is a point used as a spatial reference for a block-face. The representative point is a coordinate in the Universal Transverse Mercator (UTM) projection which is calculated as follows:

- a) The distance between all nodes comprising the block-face are totalled;
- b) This total distance is then divided by two;
- c) The resultant distance (midpoint distance) is measured back from the end point along the arcs (segment between two nodes) until the midpoint distance along the block-face is reached;
- d) The representative point is located at a point perpendicular to, and 22 metres back from the arc. A UTM XY coordinate value is calculated for this representative point;
- e) In the ARC Export format of the SNF, if arc have been adjusted (e.g. as a result of edge-matching), the representative points have not been moved. That is, the representative points may not always be 22 metres from the arc.



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## 5 - SNF DICTIONARY

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The SNF dictionary is designed to provide information on the records or fields that are found in the various file layouts which are supplied with this product.

### Address Range of a Block-face

The low and high address (civic number) found on a block-face (including commercial addresses).

### Airport

Landing facility for aircraft, usually with more than one runway, with facilities for handling passengers and air freight and for servicing aircraft.

**Approach to Highway:** refer to Ramp.

### Aqueduct

A water conduit, namely one for supplying water to a community from a distance.

### Block-face\*

The general concept of a block-face is one of a small recognizable geographical unit to which census data can be associated. The goal is to approximate, through aggregation, user-defined query areas for census data extraction and tabulation.

The block-face refers to one side of a city street, normally between consecutive intersections with streets or other physical features (such as creeks or railways).

### Boundary

A line indicating the limit or extent of an area or territory.

### Bridge

A structure erected over a water body which is defined using shorelines (instead of streamlines).

### Canal

- 1) An artificial waterway constructed to facilitate movement of ships and barges;
- 2) A watercourse built to convey water for irrigation.

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\* For the full definitions and additional remarks related to this term, users should refer to the 1991 Census Dictionary (Cat. No. 92-301E).

### **Census Agglomeration (CA)\***

The general concept of a census agglomeration (CA) is one of a large urban area, together with adjacent urban and rural areas which have a high degree of economic and social integration with that urban area.

A CA is delineated around an urban area (called the urbanized core and having a population of at least 10,000, based on the previous census. Once a CA attains an urbanized core population of at least 100,000, based on the previous census, it becomes a census metropolitan area (CMA).

### **Census Metropolitan Area (CMA)\***

The general concept of a census metropolitan area (CMA) is one of a very large urban area, together with adjacent urban and rural areas which have a high degree of economic and social integration with that urban area.

A CMA is delineated around an urban area (called the urbanized core and having a population of at least 100,000, based on the previous census). Once an area becomes a CMA, it is retained in the program even if its population subsequently declines.

### **Census Subdivision (CSD)\***

Refers to the general term applying to municipalities (as determined by provincial legislation) or their equivalent, e.g.: indian reserves, indian settlements and unorganized territories.

In Newfoundland, Nova Scotia and British Columbia, the term also describes geographic areas that have been created by Statistics Canada in co-operation with the provinces as equivalents for municipalities.

### **Cliff**

A high and extremely steep rock face, approaching the vertical.

### **Control Point**

A point location (usually an intersection of 2 features) with identifiable or known UTM coordinate values used in the AMF creation process (digitizing).

### **Creek**

A small stream, indicated by a single line or streamline.

### **Dam**

A barrier to prevent the flow of water or to raise and control the level of water, where the water body is defined by shorelines.

### **Ditch**

A trench dug in the earth, as for drainage or irrigation.

**Enumeration Area (EA)\***

An enumeration area (EA) is the geographic area canvassed by one census representative.\*

**Falls**

A waterfall where the associated water body is defined by shorelines.

**Feature**

An entity that will be included in the Street Network File.

**Feature Extension**

An extension (projection) of a feature for internal operations. It is defined from the feature end point to the extension end point.

**Federal Electoral District (FED)\***

A federal electoral district refers to any place or territorial area entitled to return a member to serve in the House of Commons (Source: Canada Elections Act, 1990). There are 295 FEDs in Canada according to the 1987 Representation Order.\*

**Government**

The exercise of authority over a district. In this case refers to any level: municipal, provincial and federal.

**Highway**

A main road or thoroughfare. For mapping purposes, this feature is divided into the following:

- 1) Single Highway - A highway with 3 lanes or less without a median (fence, grass etc.).
- 2) Multiple Highway - A highway with 4 lanes or more without a median; or a highway with 2 lanes or more with a median.

\*\*\* NOTE: For all of the above cases, if the total road width is 100 metres or more, the feature will be defined as 2 parallel single highway. \*\*\*

**Hydro Line**

The complex of wires and pylons used in the transmission of electrical power. The AMF recognizes only major ones.

**Intersection**

The junction of any two features except property boundaries.

**Island**

A body of land completely surrounded by water or marsh.

**Lake**

A large, inland body of salt or fresh water entirely surrounded by land, and larger than a pond.

**Node**

A geographic point with xy coordinates which is placed at every feature intersection and change of direction.

**Park**

An area set aside for recreation; also an area maintained in its natural state as public property.

**Pipeline**

A cylindrical passage of a substantial length for the transport of fluids or gases.

**Pond**

A natural body of standing fresh water occupying a small surface depression, usually smaller than a lake.

**Proposed Road**

A road that is in the planning stage.

**Railway**

A permanent way having rails which provide a track for train cars.

- 1) Single Track Railway - a single railway line normally of standard gauge;
- 2) Multiple Track Railway - two or more closely parallel rail lines.

**Railway Siding**

A single railway track parallel to a second track used for temporary storage of cars or for the passing of trains.

**Railway Yard**

A system of railway tracks within a prescribed limit.

**Ramp**

A short roadway providing access to or exit from a road or highway.

### **Representative Point**

A representative point (formerly called "centroid"), is a pair of coordinate values (x,y) that represents a geographic entity for the purpose of assigning aggregate data to that point. For the 1991 Census, representative points were generated for enumeration areas (EA) and block-faces. Enumeration area representative points are located either near clusters of buildings and/or streets, or at the visual centre of the EA. Block-face representative points are located at the mid-point of the block-face, set back a perpendicular distance of 22 meters from the street centre line.

### **Reservoir**

A natural or artificial storage place for water from which water may be withdrawn for irrigation, municipal water supply, etc.

### **River**

A natural, freshwater surface body of running water that serves as a natural outlet for a drainage area. Indicated by shorelines.

**Road: Refer to Street.**

### **Shoreline**

The limit of a body of water where it touches land. In the SNF, the water body should, on average, be greater than 20 metres wide and indicated by shoreline rather than streamline.

### **Streamline**

Used to define small creeks and rivers. The centre line of a river or creek with an average width of less than 20 metres.

### **Street**

A thoroughfare within a city or town larger than an alley or lane. For mapping purposes, this category is divided into the following:

- 1) Single Street: 3 lanes or less without a median;
- 2) Multiple Street: 4 lanes or more without a median, or 2 lanes or more with a median.

**\*\*\* NOTE: For all of the above cases, if the total road width is 100 metres or more, the feature will be defined as 2 parallel single streets. \*\*\***

### **Telephone Line**

A wire used for transmitting telephone signals. The AMF recognizes only major ones.

### **Trail**

A track or path located in a park.

**Tunnel**

A subterranean passageway usually carrying a railway, road or canal.

**Under Construction**

The term used to indicate that the feature on the map is not completed but that construction has started.

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## 6 - SUPPLEMENTARY INFORMATION

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### 6.1 For Further Information

For further information on the Street Network File or other products and services available from the Geography division, contact your nearest Regional Reference Centre. If you live outside the local dialing area, call one of the toll free numbers provided in the list that follows:

#### Newfoundland and Labrador

Statistics Canada  
Advisory Services  
3rd Floor  
Viking Building  
Crosbie Road  
St. John's, Newfoundland  
A1B 3P2  
Local calls: 709-722-4073  
Toll free: 1-800-563-4255  
Fax: 1-709-772-6433

#### Maritime Provinces

Statistics Canada  
Advisory Services  
North American Life Centre  
3rd Floor  
1770 Market Street  
Halifax, Nova Scotia  
B3J 3M3  
Local calls: 902-426-5331  
Toll free: 1-800-565-7192  
Fax: 1-902-426-9538

#### Quebec

Statistics Canada  
Advisory Services  
200 René-Lévesque Blvd. West  
Guy-Favreau Complex  
4th floor, East Tower  
Montréal, Quebec  
H2Z 1X4  
Local calls: 514-283-5725  
Toll free: 1-800-361-2831  
Fax: 1-514-283-9350

#### National Capital Region

Statistics Canada  
Statistical Reference Centre  
Lobby  
R.H. Coats Building  
Tunney's Pasture  
Holland Avenue  
Ottawa, Ontario  
K1A 0T6  
Local calls: 613-951-8116  
If outside the local calling area,  
dial the toll-free number for  
your province.  
Fax: 1-613-951-0581

#### Ontario

Statistics Canada  
Advisory Services  
10th Floor  
Arthur Meighen Building  
25 St. Clair Avenue East  
Toronto, Ontario  
M4T 1M4  
Local calls: 416-973-6586  
Toll free: 1-800-263-1136  
Fax: 1-416-973-7475

#### Manitoba

Statistics Canada  
Advisory Services  
Suite 300  
MacDonald Street  
344 Edmonton Street  
Winnipeg, Manitoba  
R3B 3L9  
Local calls: 204-983-4020  
Toll free: 1-800-542-3404  
Fax: 1-204-983-7543

#### Saskatchewan

Statistics Canada  
Advisory Services  
9th Floor  
Avord Tower  
2002 Victoria Avenue  
Regina, Saskatchewan  
S4P 0R7  
Local calls: 306-780-5405  
Toll free: 1-800-667-7164  
Fax: 1-306-780-5403

#### Alberta and Northwest Territories

Statistics Canada  
Advisory Services  
8th Floor  
Park Square  
10001 Bellamy Hill  
Edmonton, Alberta  
T5J 3B6  
Local calls: 403-495-3027  
Toll free: 1-800-282-3907  
N.W.T.: Call collect 1-403-495-3028  
Fax: 1-403-495-3026

#### Southern Alberta

Statistics Canada  
Advisory Services  
Room 401  
First Street Plaza  
138-4th Avenue South East  
Calgary, Alberta  
T2G 4Z6  
Local calls: 403-292-6717  
Toll free: 1-800-472-9708  
Fax: 1-403-292-4958

#### British Columbia and Yukon

Statistics Canada  
Advisory Services  
Suite 440F  
3rd Floor  
Federal Building  
Sinclair Centre  
757 West Hastings St.  
Vancouver, British Columbia  
V6C 3C9  
Local calls: 604-666-3691  
Toll free: 1-800-663-1551  
(except Atlin, B.C.)  
Yukon and Atlin, B.C.  
Zenith 08913  
Fax: 1-604-666-4863

## 6.2 Additional References and Services

In addition to the Regional Reference Centres and depository libraries, Statistics Canada publications may be ordered through your local bookstore or subscription agent. Contact the nearest Regional Reference Centre for a list of Canadian outlets available, or consult the 1991 Census Catalogue (Catalogue No. 92-302E).

Secondary distributors offer data access and analytical support through a variety of consulting and computer-based services not available at Statistics Canada. The names and addresses of licensed distributors may be obtained from any Regional Reference Centre.

Statistics Canada provides digital geographic products which allow computer manipulation of geographic data. A customized retrieval service is available for users who wish to define their own geographic area of study. A variety of data retrieval files and services provide flexibility in selecting a geographic base.

A complete description of available digital files and services is documented in the 1991 Census Catalogue (Catalogue No. 92-302E).

Information concerning Census of agriculture products and services may be referenced in the 1991 Census of Agriculture Products and Services publication, Catalogue No. 92-303, or by calling toll free 1-800-465-1991.

Users with special data requirements may request post-census survey services. Data are made available on microcomputer diskettes for use with spreadsheet software, or on paper output. For additional information, please contact the nearest Regional Reference Centre.

The Dissemination Division is responsible for CANSIM, Statistics Canada's computerized database network and information retrieval service. Users are provided with access to current and historical statistics in various forms including specialized data manipulation and analysis packages, graphics facilities and a bibliographic search service. For more information about CANSIM, contact any Regional Reference Centre.



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Division de la géographie  
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3<sup>e</sup> étage, Édifice Jean-Talon  
Parc Tunney  
Ottawa (Ontario)  
K1A 0T6

ou par télécopieur au

(613) 951-0569

Pour commander ou pour obtenir plus de renseignements, communiquez avec  
le Centre régional de consultation de Statistique Canada le plus proche.



# GEO

