The Street Network File
User Guide
(AMF Format)

Produced by the Geography Division
Statistics Canada
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Also available in French
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1 - INTRODUCTION

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.

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). A 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 AMF) 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 nearest 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 CMAs/CAs included in the SNF program are currently available.

2 - DATA QUALITY STATEMENT

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.

Chart1CumulativePercentUpdated
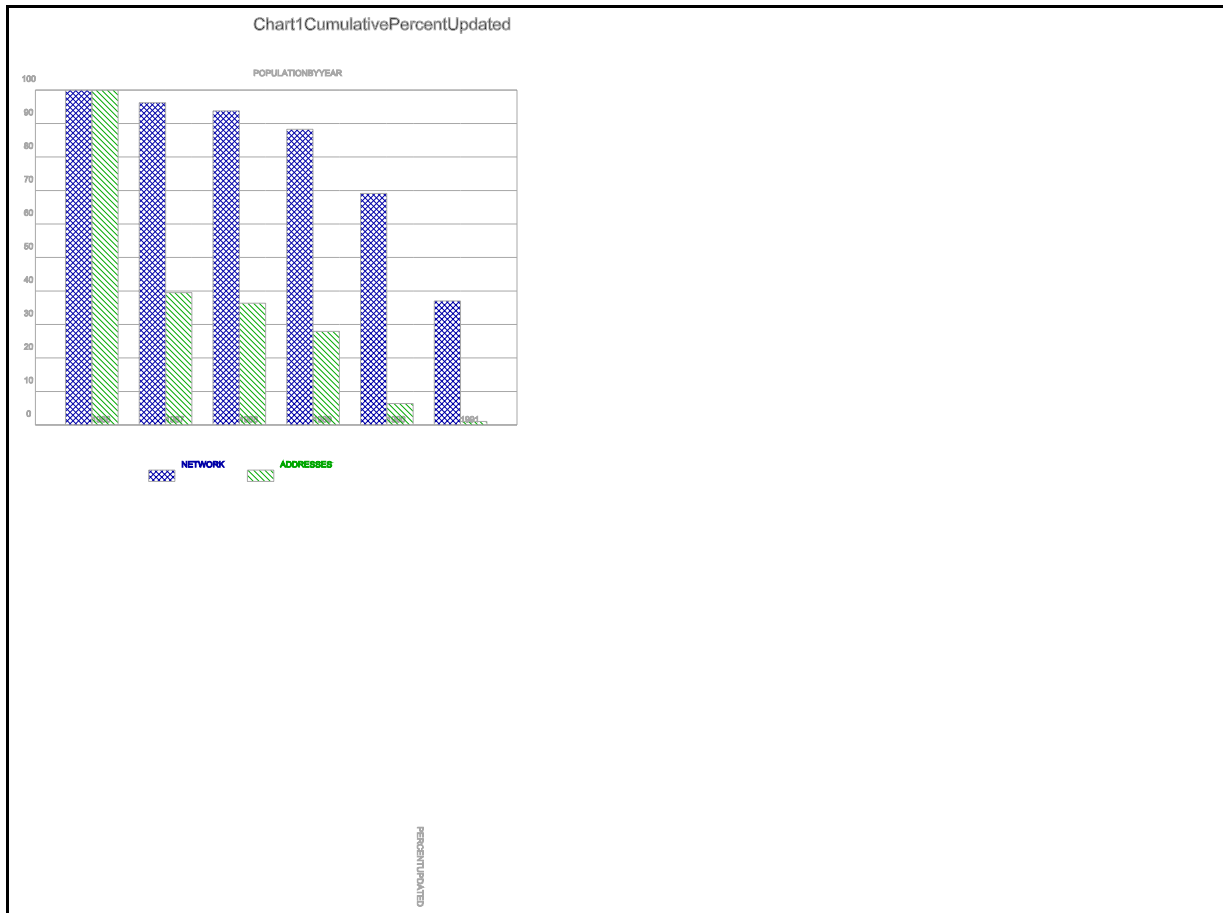
2.3 Positional Accuracy - Absolute vs. Relative

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.

3 - REFERENCE DATES OF THE SNF

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

CSD Name	CSD Type			
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
Varennes	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	VL	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-JÉROME CA

Saint-Jérome	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
Nippissing 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 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

BROCK (Ontario)			
Brock	TP	Sept 89	Sept 89
FERGUS (Ontario)			
Fergus	T	Feb. 89	Feb. 89
SCUGOG (Ontario)			
Scugog	TP	Sept 89	Sept 89
Scugog 34	R	Sept 89	Sept 89
WELLESLEY (Ontario)			
Wellesley	TP	Aug. 91	Aug. 88
WEST LINCOLN (Ontario)			
West Lincoln	TP	Oct. 90	Oct. 90
WILMOT (Ontario)			
Wilmot	TP	Aug. 91	Aug. 88

MANITOBA

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

<u>ALBERTA</u>

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

<u>BRITISH COLUMBIA</u>

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

4 - TECHNICAL SPECIFICATIONS

4.1 Physical Media Description

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

4.2 Structure of the SNF

There are six types of records found in the Street Network Files:

> - File Header Record
> - Municipality Record
> - Feature Header Record
> - Linear Feature Detail Record
> - Point Feature Detail Record
> - Alias Detail Record

File Header Records

There is one File Header Record per SNF. This record identifies the SNF and indicates the UTM zone in which it is located. It is the first record in the file, and contains spaces in positions 5-8.

Municipality Records

The Municipality Record follows the Header record. There is one Municipality Record per Census Subdivision (CSD). If there is more than one CSD in the SNF, all Municipality Records follow the Header record. A municipality Record is identified by a numeric code in positions 5-8 and spaces in positions 9-14.

4.2 Structure of the SNF - cont'd

Feature Records

Each feature has a Header record and one or more Detail records. The records for each feature are sorted by Feature Code and Sequence Number. The header record has Sequence Number "000" and will be the first record.

Linear Features have one header and more than one detail records. Point Features and Alias Features have one header and one detail record.

Every SNF feature is defined in terms of one or more of the following groups of information. The first group provides a unique identification which takes the form of a census subdivision code*, a feature name, (e.g. John St., Lake Ontario) and a feature classification (e.g. a street, a lake or an island). The second group defines the cartographic representation of each feature in the form of a series of nodes or points delineating the shape and the location of the feature as a single line image. Finally, the street (civic) address range for each portion of the addressable feature (each block-face) is defined.

_____

* **This is a code developed for the Street Network File, and it is unrelated to the Standard Geographical Classification Code. The same is true for the metropolitan area code and the municipality code which are referred to throughout this document.**

4.3 Record Layouts - EBCDIC Format

File Heading Record

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	AN	Spaces
3	6	9-14	AN	Filler
4	3	15-17	N	Sequence Number "000"
5	4	18-21	AN	Spaces
6	2	22-23	N	Number of Sections
7	6	24-29	AN	Creation Date
8	6	30-35	AN	Date of Last Update
9	3	36-38	N	UTM Zone
10	20	39-58	AN	Area Master File Name
11	1	59-59	AN	Check Field
12	6	60-65	AN	Minimum X
13	6	66-71	AN	Maximum X
14	7	72-78	AN	Minimum Y
15	7	79-85	AN	Maximum Y
16	2	86-87	AN	Representative Point Setback
17	8	88-95	AN	Filler

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

Field Description
<u>File Heading Record</u>

1   **Metropolitan Area Code:** A four digit code identifying the province code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.

2   **Spaces:** A four digit field containing spaces.

3   **Filler**

4   **Sequence Number:** A three digit field containing zeros.

5   **Spaces:** A four digit field containing spaces.

6   **Number of Sections:** A two digit field containing a number representing the number of sections within the SNF.

7   **Creation Date:** A six digit field containing the creation date of the file (optional) (YYMMDD).

8   **Date of Last Update:** A six digit field containing the date that the last update run was executed (YYMMDD).

9   **UTM Zone:** A three digit field containing the value of the UTM zone in which the SNF is located.

10   **SNF Name:** A twenty digit field containing the name given to the SNF.

11   **Check Field:** A one digit code used for internal purposes. Ignore.

*** Fields 12 to 15 refer to the minimum and maximum UTM coordinate values found throughout the extent of the SNF. ***

12   **Minimum X:** A six digit value representing the minimum X coordinate value found in the SNF.

13   **Maximum X:** A six digit value representing the maximum X coordinate value found in the SNF.

14   **Minimum Y:** A seven digit value representing the minimum Y coordinate value found in the SNF.

15   **Maximum Y:** A seven digit value representing the maximum Y coordinate value found in the SNF.

16   **Representative Point Setback:** A two digit field representing the number of metres from which the representative point is set back from the street.

17   **Filler**

Municipality Record

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Filler
4	3	15-17	N	Sequence Number
5	2	18-19	AN	Spaces
6	2	20-21	N	Section Number "00"
7	20	22-41	AN	Municipality Name
8	44	42-85	AN	Filler
9	2	86-87	N	Representative Point Setback
10	8	88-95	AN	Filler

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

Field Description
Municipality Record

1 **Metropolitan Area Code:** A four digit code identifying the province Code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.

2 **Municipality Code:** A four digit code identifying the census division code (2 digits) and the municipality code (2 digits) of the municipality (ies) comprised in the file. Note that these codes are unrelated to the standard CSD codes.

3 **Spaces: A six digit** field containing spaces.

4 **Sequence Number:** A three digit field identifying the sequence of the record.

5 **Spaces:** A two digit field containing spaces.

6 **Section Number:** A two digit field containing zeros. "00".

7 **Municipality Name:** A twenty digit field used to identify the name(s) of the municipality (ies) contained in the SNF. (Will be truncated if greater than 20 characters.)

8 **Filler:** A forty-four digit field for internal use only. Ignore.

9 **Representative Point Setback:** A two digit field representing the number of metres from which the representative point is set back from the street.

10 **Filler:** An eight digit field for internal purposes only. Ignore.

Header Record

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Feature Code
4	3	15-17	N	Sequence Number "000"
5	1	18-18	AN	Feature Type
6	1	19-19	AN	Sub-Feature Type
7	2	20-21	N	Section Number "00"
8	3	22-24	BIT	Filler
9	2	25-26	AN	Representative Point Calculation Check
10	20	27-46	AN	Feature Name
11	2	47-48	AN	Street Type
12	2	49-50	AN	Feature Direction
13	45	51-95	AN	Filler

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

Field Description
Header Record

1   **Metropolitan Area Code:** A four digit code identifying the province code 2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.

2   **Municipality Code:** A four digit code identifying the census division code (2 digits) and the municipality code (2 digits) to which the feature belongs. Note that these codes are unrelated to the standard CSD codes.

3   **Feature Code:** A six digit code given to each of the features corresponding to their alpha-numerical order. This code is right justified with leading blanks.

4   **Sequence Number**: always set to zero "000".

5   **Feature Type:** A one digit code which identifies the different types of features (see LIST "A").

6   **Sub-Feature Type:** A one digit code used only to categorize "Feature Type" (see LIST "A").

7   **Section Number**: always set to zero "00".

8   **Filler:** Three digits for internal use only. Ignore.

9   **Representative Point Calculation Check:** Two digits for internal use only. Ignore.

10   **Feature Name:** A twenty character field containing the given name of the feature.

11   **Street Type:** A two digit field used for either of the following:

               1) street identification when the street is a single or multiple lane addressable street (see LIST B);

               2) to subdivide feature types (see LIST "A").

12   **Feature Direction:** A two digit right justified code identifying the direction of the feature (see LIST "C").

13   **Filler:** For internal use only. Ignore.

Detail Record
<u>Street & Non-Street Features</u>

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Feature Code
4	3	15-17	N	Sequence Number
5	1	18-18	AN	Feature Type
6	1	19-19	AN	Sub-Feature Type
7	2	20-21	N	Section Number
8	3	22-24	BIT	Spaces
9	2	25-26	AN	Representative Point Calculation Check
10	4	27-30	N	Node Number
11	1	31-31	AN	Node Type
12	4	32-35	PD	Node X UTM
13	4	36-39	PD	Node Y UTM
14	5	40-44	AN	Address Before Left
15	5	45-49	AN	Address Before Right
16	5	50-54	AN	Address After Left
17	5	55-59	AN	Address After Right
18	4	60-63	PD	Representative Point Left X
19	4	64-67	PD	Representative Point Left Y
20	4	68-71	PD	Representative Point Right X
21	4	72-75	PD	Representative Point Right Y
22	4	76-79	AN	Cross-Reference Municipality Code
23	6	80-85	AN	Cross-Reference Feature Code
24	3	86-88	AN	Cross-Reference Sequence Number
25	5	89-93	AN	Cross-Reference Feature Name
26	2	94-95	AN	Cross-Reference Street Type

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

Field Description
<u>Detail Record - Street & Non-Street Features</u>

1   **Metropolitan Area Code:** A four digit code identifying the province code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.

2   **Municipality Code:** A four digit code identifying the census division code (2 digits) and the municipality code to which the feature belongs. Note that these codes are unrelated to the standard CSD codes.

3   **Feature Code:** A six digit code given to each of the features corresponding to their alpha-numerical order. This code is right justified with leading blanks.

4   **Sequence Number**: A three digit code in ascending order identifying each record within the feature.

5   **Feature Type:** A one digit code which identifies the different types of features (see LIST "A").

6   **Sub-Feature Type:** A one digit code used only to categorize "Feature Type" (see LIST "A").

7   **Section Number**: A two digit number identifying the section to which the node belongs. Large SNFs are divided into sections to facilitate manipulation.

8   **Filler:** Three digits for internal use only. Ignore.

9   **Representative Point Calculation Check:** Two digits for internal use only. Ignore.

10   **Node Number:** A unique number given to each node. This number is made up of four digits and is unique within one section. If the section number is attached to a node number, then it becomes unique within the Street Network File.

11   **Node Type:** A one digit code which identifies the different types of nodes (see LIST "D").

12   **Node X UTM:** is the UTM X coordinate value for the node.

13   **Node Y UTM:** is the UTM Y coordinate value for the node.

14   **Address Before Left:** It contains the civic address found on the left-hand side of the street before the node.

15   **Address Before Right:** It contains the address found on the right-hand side of the street before the node.

16   **Address After Left:** It contains the civic address found on the left-hand side of the street after the node.

17   **Address After Right:** It contains the civic address found on the right-hand side of the street after the node.

*** In reference to fields 18 to 21, the representative point value is stored at the last node (last record) forming the block-face. ***

18   **Representative Point Left X:** Is the UTM X coordinate value for the representative point of the block-face on the left.

19   **Representative Point Left Y:** Is the UTM Y coordinate value for the representative point of the block-face on the left.

20   **Representative Point Right X:** Is the UTM X coordinate value for the representative point of the block-face on the right.

21   **Representative Point Right Y:** Is the UTM Y coordinate value for the representative point of the block-face on the right.

*** The next five fields represent the reference information pertaining to one of the intersecting features at this intersection. (Refer to "Data Item Regulations and Clarifications"). ***

22   **Cross-Reference Municipality Code:** Is the municipality code of the feature intersecting at the node.

23   **Cross-Reference Feature Code:** Is the feature code of the feature intersecting at the node.

24   **Cross-Reference Sequence Number:** Is the sequence at which the node appears on the intersecting feature.

25   **Cross-Reference Feature Name:** Is comprised of the first five characters of the given name of the intersecting feature.

26   **Cross-Reference Street Type:** Is the given street type of the intersecting feature.

Detail Record
Point Features

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Feature Code
4	3	15-17	N	Sequence Number
5	1	18-18	AN	Feature Type "P"
6	1	19-19	AN	Sub-Feature Type "P"
7	2	20-21	N	Section Number
8	3	22-24	BIT	Spaces
9	2	25-26	AN	Representative Point Calculation Check
10	4	27-30	N	Node Number
11	1	31-31	AN	Node Type
12	4	32-35	PD	Node X UTM
13	4	36-39	PD	Node Y UTM
14	56	40-95	AN	Filler

*** NOTE: The descriptions for fields 1 to 13 are the same as those found under "Detail Record - Street and Non-Street Features"; fields 14 to 26 are fillers. The "Feature Type" and "Sub-Feature Type" fields are always "P". ***

Detail Record
Alias Features

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Feature Code
4	3	15-17	N	Sequence Number
5	1	18-18	AN	Feature Type "D"
6	1	19-19	AN	Sub-Feature Type "A"
7	2	20-21	N	Section Number "00"
8	3	22-24	BIT	Spaces
9	2	25-26	AN	Representative Point Calculation Check
10	10	27-36	AN	Original Name
11	2	37-38	AN	Original Street Type
12	2	39-40	AN	Original Direction
13	5	41-45	AN	Filler
14	8	46-53	N	Original Municipality Code
15	6	54-59	AN	Original Feature Code
16	3	60-62	N	Original Sequence Number "000"
17	5	63-67	AN	Original Name
18	2	68-69	AN	Original Street Type
19	26	70-95	AN	Filler

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

Field Description
Detail Record - Alias Features

1   **Metropolitan Area Code:** A four digit code identifying the province Code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within on SNF). Note that these codes are unrelated to the standard CMA codes.

2   **Municipality Code:** A four digit code identifying the census division code (2 digits) and the municipality code (2 digits) to which the feature belongs. Note that these codes are unrelated to the standard CSD codes.

3   **Feature Code:** A six digit code given to each of the features corresponding to their alpha-numerical order. This code is right justified with leading blanks.

4   **Sequence Number:** Always set to "000"

5   **Feature Type:** Always set to "D".

6   **Sub-Feature Type:** Always set to "A".

7   **Section Number:** Always set to zero "00"

8   **Filler:** Three digits for internal use only. Ignore.

9   **Representative Point Calculation Check:** Two digits for internal use only. Ignore.

10   **Original Name:** A ten digit field used to identify the real name of the feature.

11   **Original Street Type:** A two digit code (see LIST "A") used to identify the real street type.

12   **Original Direction:** A two digit code right justified (see LIST "C") used to identify the real feature direction.

13   **Filler:** Is a five digit code for internal use only. Ignore.

14   **Original Municipality Code:** Is an eight digit code containing the municipality code of the real feature.

15   **Original Feature Code:** Is a six digit code containing the feature code of the real feature.

16   **Original Sequence Number**: Always set to "000".

17   **Original Name:** A five digit field used to identify the real name.

18   **Original Street Type:** A two digit code to identify the street type of the real street.

19   **Filler:** For internal use only. Ignore.

4.4 Record Layouts - ASCII Format

File Heading Record

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	AN	Spaces
3	6	9-14	AN	Filler
4	3	15-17	N	Sequence Number "000"'
5	4	18-21	AN	Spaces
6	2	22-23	N	Number of Sections
7	6	24-29	AN	Creation Date
8	6	30-35	AN	Date of Last Update
9	3	36-38	N	UTM Zone
10	20	39-58	AN	Area Master File Name
11	1	59-59	AN	Check Field
12	6	60-65	AN	Minimum X
13	6	66-71	AN	Maximum X
14	7	72-78	AN	Minimum Y
15	7	79-85	AN	Maximum Y
16	2	86-87	AN	Representative Point Setback
17	7	88-94	AN	Filler
18	1	95-95	AN	Zero "0"
19	15	96-110	AN	Filler

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

Field Description
File Header Record

1	**Metropolitan Area Code:** A four digit code identifying the province Code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.	

1   **Metropolitan Area Code:** A four digit code identifying the province Code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.

2   **Spaces:** A four digit field containing spaces.

3   **Filler**

4   **Sequence Number:** A three digit field containing zeros.

5   **Spaces:** A four digit field containing spaces.

6   **Number of Sections:** A two digit field containing a number representing the number of sections within the SNF.

7   **Creation Date:** A six digit field containing the creation date of the file (optional) (YYMMDD).

8   **Date of Last Update:** A six digit field containing the date that the last update run was executed (YYMMDD).

9   **UTM Zone:** A three digit field containing the value of the UTM zone in which the SNF is located.

10   **SNF Name:** A twenty digit field containing the name given to the SNF.

11   **Check Field:** A one digit code used for internal purposes. Ignore.

*** Fields 12 to 15 refer to the minimum and maximum UTM coordinate values found throughout the extent of the SNF. ***

12   **Minimum X:** A six digit value representing the minimum X coordinate value found in the SNF.
13   **Maximum X:** A six digit value representing the maximum X coordinate value found in the SNF.
14   **Minimum Y:** A seven digit value representing the minimum Y coordinate value found in the SNF.
15   **Maximum Y:** A seven digit value representing the maximum Y coordinate value found in the SNF.

16   **Representative Point Setback:** A two digit field representing the number of metres from which the representative point is set back from the street.

17   **Filler**

18   **Zero**

19   **Filler**

Municipality Record

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Filler
4	3	15-17	N	Sequence Number
5	2	18-19	AN	Spaces
6	2	20-21	N	Section Number "00"
7	20	22-41	AN	Municipality Name
8	44	42-85	AN	Filler
9	2	86-87	N	Representative Point Setback
10	7	88-94	AN	Filler
11	1	95-95	AN	Zero "0"
12	15	96-110	AN	Filler

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

Field Description
Municipality Record

1   **Metropolitan Area Code:** A four digit code identifying the province Code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.

2   **Municipality Code:** A four digit code identifying the census division code (2 digits) and the municipality Code (2 digits) of the municipality (ies) comprised in the file. Note that these codes are unrelated to the standard CSD codes.

3   **Spaces:** A six digit field containing spaces.

4   **Sequence Number:** A three digit field identifying the sequence of the record.

5   **Spaces:** A two digit field containing spaces.

6   **Section Number:** A two digit field containing zeros. "00".

7   **Municipality Name:** A twenty digit field used to identify the name(s) of the municipality(ies) contained in the SNF. (Will be truncated if greater than 20 characters.)

8   **Filler:** A forty-four digit field for internal use only. Ignore.

9   **Representative Point Setback:** A two digit field representing the number of metres from which the representative point is set back from the street.

10   **Filler:** A seven digit field for internal purposes only. Ignore.

11   **Zero**

12   **Filler**

Header Record

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Feature Code
4	3	15-17	N	Sequence Number "000"
5	1	18-18	AN	Feature Type
6	1	19-19	AN	Sub-Feature Type
7	2	20-21	N	Section Number "00"
8	3	22-24	AN	Filler
9	2	25-26	AN	Representative Point Calculation Check
10	20	27-46	AN	Feature Name
11	2	47-48	AN	Street Type
12	2	49-50	AN	Feature Direction
13	60	51-110	AN	Filler

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

Field Description
Header Record

1   **Metropolitan Area Code:** A four digit code identifying the province code 2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.

2   **Municipality Code:** A four digit code identifying the census division code (2 digits) and the Municipality Code (2 digits) to which the feature belongs. Note that these codes are unrelated to the standard CSD codes.

3   **Feature Code:** A six digit code given to each of the features corresponding to their alpha-numerical order. This code is right justified with leading blanks.

4   **Sequence Number**: always set to zero "000".

5   **Feature Type:** A one digit code which identifies the different types of features (see LIST "A").

6   **Sub-Feature Type:** A one digit code used only to categorize "Feature Type" (see LIST "A").

7   **Section Number**: always set to zero "00".

8   **Filler:** Three digits for internal use only. Ignore.

9   **Representative Point Calculation Check:** Two digits for internal use only. Ignore.

10   **Feature Name:** A twenty character field containing the given name of the feature.

11   **Street Type:** A two digit field used for either of the following:

                 1) street identification when the street is a single or multiple lane addressable street (see LIST "B");

                 2) to subdivide feature types (see LIST "A").

12   **Feature Direction:** A two digit right justified code identifying the direction of the feature (see LIST "C").

13   **Filler:** For internal use only. Ignore.

Detail Record - Street & Non-Street Features

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Feature Code
4	3	15-17	N	Sequence Number
5	1	18-18	AN	Feature Type
6	1	19-19	AN	Sub-Feature Type
7	2	20-21	N	Section Number
8	3	22-24	AN	Spaces
9	2	25-26	AN	Representative Point Calculation Check
10	4	27-30	N	Node Number
11	1	31-31	AN	Node Type
12	6	32-37	N	Node X UTM
13	7	38-44	N	Node Y UTM
14	5	45-49	AN	Address Before Left
15	5	50-54	AN	Address Before Right
16	5	55-59	AN	Address After Left
17	5	60-64	AN	Address After Right
18	6	65-70	N	Representative Point Left X
19	7	71-77	N	Representative Point Left Y
20	6	78-83	N	Representative Point Right X
21	7	84-90	N	Representative Point Right Y
22	4	91-94	AN	Cross-Reference Municipality Code
23	6	95-100	AN	Cross-Reference Feature Code
24	3	101-103	AN	Cross-Reference Sequence Number
25	5	104-108	AN	Cross-Reference Feature Name
26	2	109-110	AN	Cross-Reference Street Type

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

Field Description
Detail Record - Street & Non-Street Features

1   **Metropolitan Area Code:** A four digit code identifying the province code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within one SNF). Note that these codes are unrelated to the standard CMA codes.

2   **Municipality Code:** A four digit code identifying the census division code (2 digits) and the municipality code to which the feature belongs. Note that these codes are unrelated to the CSD codes.

3   **Feature Code:** A six digit code given to each of the features corresponding to their alpha-numerical order. This code is right justified with leading blanks.

4   **Sequence Number**: A three digit code in ascending order identifying each record within the feature.

5   **Feature Type:** A one digit code which identifies the different types of features (see LIST "A").

6   **Sub-Feature Type:** A one digit code used only to categorize "Feature Type" (see LIST "A").

7   **Section Number**: A two digit number identifying the section to which the node belongs. Large SNFs are divided into sections to facilitate manipulation.

8   **Filler:** Three digits for internal use only. Ignore.

9   **Representative Point Calculation Check:** Two digits for internal use only. Ignore.

10   **Node Number:** A unique number given to each node. This number is made up of four digits and is unique within one section. If the section number is attached to a node number, then it becomes unique within the Street Network File.

11   **Node Type:** A one digit code which identifies the different types of nodes (see LIST "D").

12   **Node X UTM:** is the UTM X coordinate value for the node.

13   **Node Y UTM:** is the UTM Y coordinate value for the node.

14   **Address Before Left:** It contains the civic address found on the left-hand side of the street before the node.

15   **Address Before Right:** It contains the address found on the right-hand side of the street before the node.

16   **Address After Left:** It contains the civic address found on the left-hand side of the street after the node.

17   **Address After Right:** It contains the civic address found on the right-hand side of the street after the node.

*** In reference to fields 18 to 21, the representative point value is stored at the last node (last record) forming the block-face. ***

18	**Representative Point Left X:** Is the UTM X coordinate value for the representative point of the block-face on the left.

19	**Representative Point Left Y:** Is the UTM Y coordinate value for the representative point of the block-face on the left.

20	**Representative Point Right X:** Is the UTM X coordinate value for the representative point of the block-face on the right.

21	**Representative Point Right Y:** Is the UTM Y coordinate value for the representative point of the block-face on the right.

*** The next five fields represent the reference information pertaining to one of the intersecting features at this intersection. (Refer to "Data Item Regulations and Clarifications"). ***

22	**Cross-Reference Municipality Code:** Is the municipality code of the feature intersecting at the node.

23	**Cross-Reference Feature Code:** Is the feature code of the feature intersecting at the node.

24	**Cross-Reference Sequence Number:** Is the sequence at which the node appears on the intersecting feature.

25	**Cross-Reference Feature Name:** Is comprised of the first five characters of the given name of the intersecting feature.

26	**Cross-Reference Street Type:** Is the given street type of the intersecting feature.

Detail Record - Point Features

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Feature Code
4	3	15-17	N	Sequence Number
5	1	18-18	AN	Feature Type "P"
6	1	19-19	AN	Sub-Feature Type "P"
7	2	20-21	N	Section Number
8	3	22-24	AN	Spaces
9	2	25-26	AN	Representative Point Calculation Check
10	4	27-30	N	Node Number
11	1	31-31	AN	Node Type
12	6	32-37	N	Node X UTM
13	7	38-44	N	Node Y UTM
14	66	45-110	AN	Filler

*** NOTE: The descriptions for fields 1 to 13 are the same as those found under "Detail Record - Street and Non-Street Features"; fields 14 to 26 are fillers. The "Feature Type" and "Sub-Feature Type" fields are always "P". ***

Detail Record - Alias Features

Field	Size	Position	Type	Description
1	4	1-4	N	Metropolitan Area Code
2	4	5-8	N	Municipality Code
3	6	9-14	AN	Feature Code
4	3	15-17	N	Sequence Number
5	1	18-18	AN	Feature Type "D"
6	1	19-19	AN	Sub-Feature Type "A"
7	2	20-21	N	Section Number "00"
8	3	22-24	BIT	Spaces
9	2	25-26	AN	Representative Point Calculation Check
10	10	27-36	AN	Original Name
11	2	37-38	AN	Original Street Type
12	2	39-40	AN	Original Direction
13	5	41-45	AN	Filler
14	8	46-53	N	Original Municipality Code
15	6	54-59	AN	Original Feature Code
16	3	60-62	N	Original Sequence Number "000"
17	5	63-67	AN	Original Name
18	2	68-69	AN	Original Street Type
19	41	70-110	AN	Filler

NOTE: A description of this file layout can be found on the following page $\rightarrow \rightarrow \rightarrow$

Field Description
Detail Record - Alias Features

1 **Metropolitan Area Code:** A four digit code identifying the province Code (2 digits) and the metropolitan area or agglomeration area code (2 digits) to which the area belongs (unique within on SNF). Note that these codes are unrelated to the standard CMA codes.

2 **Municipality Code:** A four digit code identifying the census division code (2 digits) and the municipality Code to which the feature belongs. Note that these codes are unrelated to the standard CSD codes.

3 **Feature Code:** A six digit code given to each of the features corresponding to their alpha-numerical order. This code is right justified with leading blanks.

4 **Sequence Number:** Always set to "000"

5 **Feature Type:** Always set to "D".

6 **Sub-Feature Type:** Always set to "A".

7 **Section Number:** Always set to zero "00"

8 **Filler:** Three digits for internal use only. Ignore.

9 **Representative Point Calculation Check:** Two digits for internal use only. Ignore.

10 **Original Name:** A ten digit field used to identify the real name of the feature.

11 **Original Street Type:** A two digit code (see LIST "A") used to identify the real street type.

12 **Original Direction:** A two digit code right justified (see LIST "C") used to identify the real feature direction.

13 **Filler:** Is a five digit code for internal use only. Ignore.

14 **Original Municipality Code:** Is an eight digit code containing the municipality code of the real feature.

15 **Original Feature Code:** Is a six digit code containing the feature code of the real feature.

16 **Original Sequence Number**: Always set to "000".

17 **Original Name:** A five digit field used to identify the real name.

18 **Original Street Type:** A two digit code to identify the street type of the real street.

19 **Filler:** For internal use only. Ignore.

LIST A: FEATURE CLASSIFICATION

All features defined in an SNF are classified using a combination of three types, namely: the feature type, the sub-feature type and the street type. Following is a list of all possible combinations with their corresponding interpretation:

Roadway, railway and associated features category[1]

Type	Feature Sub-type	Street Type	Interpretation
b	b	See LIST B	Addressable Single street- & public access lane
E	b	See LIST B	Addressable Multiple street & public access lane
H	N	SI	Highway single
H	N	MU	Highway multiple
H	N	PR	Highway proposed
H	N	UC	Highway under construction
H	N	bb	Other Highway
B	N	SI	Bridge or Tunnel - Single Highway or Addressable Multiple street
B	N	MU	Bridge or Tunnel - Multiple Highway
B	N	MN	Bridge or Tunnel Addressable Single street
B	N	bb	Other Bridge or Tunnel

---

[1] The characters "b" or "bb" denote that the field is blank.

LIST A: FEATURE CLASSIFICATION - CONT'D

Roadway, railway and associated features category - cont'd

Type	Feature Sub-type	Street Type	Interpretation
R	N	bb	Other Railway features
R	N	SI	Railway single track
R	N	MU	Railway multiple track
R	N	SG	Railway siding or yard
F	N	RA	Ramp
F	N	TR	Trail
F	N	WA	Walkway
F	N	EX	Feature extension
F	N	bb	Other Roadway Associated features

LIST A: FEATURE CLASSIFICATION - CONT'D

Hydrography and associated features category

Type	Sub-type	Type	Interpretation
W	N	CR	Creek - defined using streamline
W	N	AQ	Aqueduct
W	N	CA	Canal
W	N	RI	River
W	N	bb	Other Water body defined using streamline
S	N	CR	Creek - defined using shoreline
S	N	AQ	Aqueduct
S	N	CA	Canal
S	N	RI	River
S	N	LA	Lake
S	N	PO	Pond
S	N	RE	Reservoir
S	N	OC	Ocean
S	N	bb	Other Waterbody defined using shorelines
I	N	FA	Falls
I	N	DA	Dam
I	N	bb	Other Associated features

LIST A: FEATURE CLASSIFICATION - CONT'D

Delimiter and associated features category

Type	Sub-type	Type	Interpretation
M	B	MU	Municipal Boundary
M	B	PR	Provincial Boundary
M	B	NA	National Boundary
M	B	FE	Federal Electoral District Boundary
M	B	bb	Other Political boundaries
C	B	EA	Enumeration Area Boundary
C	B	bb	Other Geostatistical area boundaries
G	B	PA	Park Boundary
G	B	GO	Golf Boundary
G	B	AI	Airport Boundary
G	B	HO	Hospital Boundary
G	B	bb	Other Property boundaries
G	B	SH	Shopping Centre Boundary
G	B	SC	School Boundary
G	B	CO	College Boundary
G	B	UN	University Boundary
G	B	JA	Jail Boundary
G	B	CH	Church Boundary
G	B	GT	Government Boundary
U	B	bb	Other Urban-Rural boundaries

LIST A: FEATURE CLASSIFICATION - CONT'D

General Features Category

Type	Sub-type	Type	Interpretation
P	P	PA	Park
P	P	GO	Golf
P	P	HO	Hospital
P	P	AI	Airport
P	P	SH	Shopping centre
P	P	SC	School
P	P	CO	College
P	P	UN	University
P	P	JA	Jail
P	P	CH	Church
P	P	GT	Government
P	P	bb	Other Point features
O	N	FA	Cliff
O	N	DI	Ditch
O	N	bb	Other Topography features
Z	N	HY	Hydroline (Major)
Z	N	TE	Telephone line (Major)
Z	N	FE	Fence
Z	N	PI	Pipeline
Z	N	bb	Other features
D	A	bb	Alias features

LIST B: STREET TYPE LIST

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

TR	Terrace/Terrasse
VW	View
WK	Walk
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

LIST D: NODE TYPE

The node type identifies the different types of nodes in an SNF feature:

_____

B   Beginning node of feature or a segment

E   End node of feature or a segment

P   Point street feature

b   Other nodes

4.5 Data Item Regulations And Clarifications

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

1 - Metropolitan Area Code

The metropolitan area code is unique throughout the SNF.

2 - Sequence Number

For a Detail record, the sequence number must be greater than "000" and in ascending numerical order, starting with the "B" node and ending with the "E" node, within each feature code. For a Municipality record, the sequence number must be greater than "000" and in ascending numerical order, in correspondence with the municipal records.

3 - Unique Node Identification

When the section number is joined with the node number, it permits the unique identification of a node within an SNF.

4 - Node Type (See List "D")

There is one "B" node type per feature identifying its starting point, and one "E" node type per feature identifying its end point. In some cases however, there are more than one "B" and "E" node types. Due to operational requirements, all circular features such as lakes will have two "B" and two "E" points; features that have been physically interrupted will be defined with multiple "B" and "E"s; due to programming requirements in address editing, any street in which odd and even addresses switch sides at an intersection will be divided into multiple "B"s and "E"s.

For addressable features, the direction of "B" and "E" follows the ascending order of the address. If the addresses on the feature are unknown, the direction of "B" and "E" follows the surrounding street pattern. If no fixed pattern is identified in the surrounding street network, then the direction is arbitrarily in a South to North and East to West direction.

For non-addressable features, the direction of "B" and "E" is in a South to North and East to West direction. Highway ramps, however, follow the traffic flow, while circular features follow a clockwise direction. The "B" and "E" are directed such that the water body is located on the right of the shoreline from "B" to "E".

5 - Node XY Coordinates

When features have a minimum distance of 20 metres or less between them, one feature is adjusted to improve cartographic aesthetics. Features which are located too close to CSD limits are also moved to insure their representative point xy values are located within their respective CSD limit.

4.5 Data Item Regulations And Clarifications - Cont'd

6 - **Addresses**

Addresses are identified on the right and left hand side of addressable features before and after nodes defining the feature. Addresses are blank before the feature"s beginning node and after the feature's ending node (on both sides). The address can either be a civic number or the symbol "_____ " (address unknown) after the feature"s beginning node and before the feature"s ending node (on both sides). The address can either be a number or the symbol "_____" before and after an intersection node (on the side that intersects only). The address is blank before and after non-intersecting nodes.

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.

All addresses must be either odd <u>or</u> even on each side of the feature between its "B" & "E"s.

7 - **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, 0 to 9 and the symbols **' . ,** - or blank characters. The name used for this field is the official name supplied by local expertise.

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.

The following describes the regulations pertaining to feature name coding:

> - 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.

4.5 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.

- Features which are unidentified are coded as:

a) For street features: ZXXX
- where XXX is a three digit number assigned arbitrarily. eg. Z001 for an unidentified street

b) For non-street features: "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 which are 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.

8 - Representative Point

It 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 2;

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.

4.5 Data Item Regulations And Clarifications - cont'd

9 - Cross-Reference

This field is automatically generated by the system, at the conclusion of each creation and updating procedure for each SNF. It is the identification of one feature which intersects with the feature in question at this node. The system allows for the generation of only one intersection (cross-reference) even though more than one may exist.

The cross-reference is generated as follows:

a) The file is sequenced by Section # and Node # and then ordered by Feature Code and Sequence #.

Section Number	Feature Code	Sequence Number	Feature Name
012380	00068 028	Albert St.	
012380	00174 003		James St.
012380	00196 014	Ottawa River	
012380	00024 010	George St.	

b) The system then implements a chaining procedure in which the first feature is chained to the second feature, and the second feature is chained to the third feature, and so on. The last feature within the same Section # Node # is chained or assigned to the first feature, thus completing the chaining procedure for that particular Section # Node #.

c) The procedure continues for the entire file.

NOTE: Alias and Point features are bypassed in this procedure.

5 - SNF DICTIONARY

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.

6 - SUPPLEMENTARY INFORMATION

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-Lèvesque 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,

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

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

dial the toll-free number for　　　　　　Fax: 1-403-495-3026
your province.
Fax: 1-613-951-0581

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.