dmti spatial

CanMap® RouteLogistics User Manual

v2018.2

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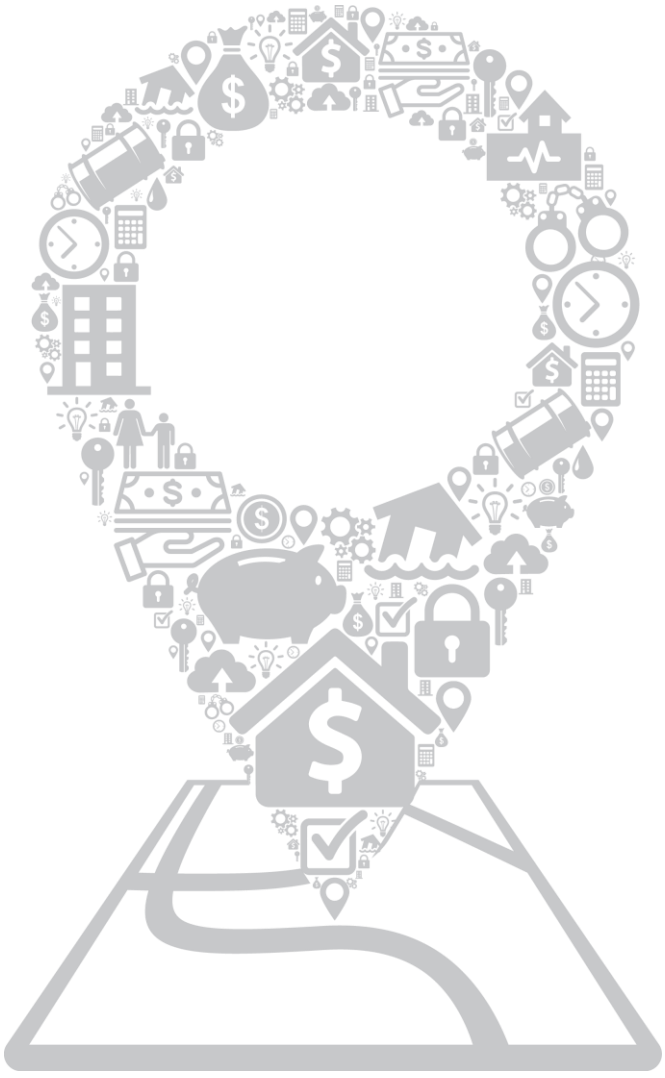

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About DMTI Spatial

DMTI Spatial, a Digital Map Products company, is the Canadian market leader in location based information and data quality. For almost 20 years, DMTI Spatial has been providing industry leading location economics and Master Address Management (MAM) solutions to Global 2000 companies and government agencies. DMTI Spatial is the creator of market leading CanMap® mapping solutions, award-winning Location Hub® and maintains the gold standard for GIS location-based data in Canada. DMTI Spatial is headquartered in Markham, Ontario. Learn more at www.dmtispatial.com

Technical Support, Error Reporting & Product Enhancement Services

DMTI Spatial is committed to building the best products possible for our customers. By using our data every day in your mission critical application you are our best source for product refinement. Please let us know if you have an enhancement request or found an error in any of our products so that we can make the correction for the next release.

This is your opportunity to provide feedback directly to the DMTI Spatial Product Development Team. Please be as specific as possible so that we can improve our products quickly and accurately. To submit an error or request technical assistance please visit our website at: http://www.dmtispatial.com/

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Trademarks and Notices

About CanMap® RouteLogistics

Layer Properties

Property	Description
Coverage	National
Currency	May 15, 2018
Level of Accuracy	Ranging from the National Topographic Data Base (NTDB) standard to sub-meter accuracy
Projection	Unprojected Longitude-Latitude
Datum	WGS84
Format	ESRI and MapInfo[1]

Layer Naming Conventions

CanMap RouteLogistics is organized into the following directory structure and uses the following directory and file naming conventions:

Example: \CanMapRL\ON\Streets**ONhwy**

Product Directory	Geographic Area Directory	General Content Directory	Geographic Area Abbreviation	File Content Abbreviation
CanMapRL	ON	Streets	ON	hwy

The geographic area directory area indicates the geographic coverage of the layer, for example ON = Ontario.

The Geographic Area Name indicates the geographic extent of the file. DMTI Spatial's standard geographic coverage areas include all Provinces and Territories as well the coverage areas found in the CANtop file included with Bonus Canada Directory.

CanMap RouteLogistics contain the following general content directories:

Directory Name	Description
Canada	Canada Directory
POI	Points of Interest Directory
Streets	Streets Directory
Topo	Topo Directory

[1] Custom formats available upon request. Refer to Appendix A: ESRI File Extensions and Appendix B: MapInfo File Extensions for more information regarding file extensions.

Layer Contents

CanMap RouteLogistics is comprised of the following layers:

Canada Directory

Layer Name	Description	Feature Type
CAN**acb**	Area Code Boundaries	Polygon
CAN**cap**	Capital Cities	Point
CAN**prv**	Provincial/Territorial Boundaries	Polygon
CAN**rmn**	Regional Municipality Boundaries	Polygon
CAN**top**	Topographic Coverage Areas	Polygon
CAN**tzs**	Time Zones (Standard Time)	Polygon
CAN**tzd**	Time Zones (Daylight Savings Time)	Polygon
CAN**wat**	National Water	Polygon

The Canada Directory is included with the CanMap RouteLogistics product. For more information regarding the Canada Directory refer to the *Data Dictionary* of CanMap RouteLogistics User Manual.

Points of Interest Directory

Layer Name	Description	Feature Type
*AREA***aer**[2]	Aerodromes	Point
*AREA***cpl**	Car Pool Lots	Point
*AREA***edu**	Education	Point
*AREA***glf**	Golf Courses	Point
*AREA***hcr**	Health Care	Point
*AREA***ppn**	Populated Placenames	Point
*AREA***tol**	Toll Booths	Point
*AREA***trs**	Transportation Stops	Point
*AREA***wgh**	Weigh Stations	Point

The Points of Interest Directory is included with the CanMap RouteLogistics product. For more information regarding the Points of Interest Directory refer to the *Data Dictionary* of CanMap RouteLogistics User Manual.

[2] Where *AREA* refers to a DMTI Spatial Standard Geographic Area

Streets Directory

Layer Name	Description	Feature Type
*AREA***fsa**	Forward Sortation Areas	Region
*AREA***hrd**	Major Roads and Highways	Line
*AREA***hwy**	Highways	Line
*AREA***lnk**	Canada\US Roads Linkages	Point
*AREA***maf**	Municipal Amalgamations File	Region
*AREA***mun**	Municipality Boundaries	Region
*AREA***rds_lut**	Roads Lookup Table	None

About CanMap® RouteLogistics *(cont'd)*

Layer Name	Description	Feature Type
*AREA***ren**	Relative Elevation Nodes	Point
*AREA***rte**	Roads	Line
*AREA***rte_lut**	Route Logistics Lookup Table	None
*AREA***trn**	Turn Restrictions Table	None
*AREA***trr**	Transportation Route Restrictions Table	None
*AREA***xit**	Highway Exits	Point

For detailed information on other layers included in CanMap RouteLogistics refer to the *Data Dictionary* CanMap RouteLogistics User Manual. The following layers are specific to routing. For more information regarding these layers refer to the *Data Dictionary* of the CanMap RouteLogistics User Manual.

Layer Name	Description
*AREA***aer**	Aerodromes
*AREA***wgh**	Weigh Stations
*AREA***fsa**	Forward Sortation Areas
*AREA***ren**	Relative Elevation Nodes
*AREA***rte**	Roads
*AREA***rte_lut**	Route Logistics Lookup Table
*AREA***trn**	Turn Restrictions Table
*AREA***trr**	Transportation Route Restrictions Table
*AREA***xit**	Highway Exits

Topo Directory

Layer Name	Description	Feature Type
*AREA***bf**	Building Footprints	Region
*AREA***bp**	Building Points	Point
*AREA***hs**	Hydrographic Structures	Point, Line, Region
*AREA***hy**	Hydrography	Point, Line, Region
*AREA***ir**	Industrial and Resource	Point, Line, Region
*AREA***ll**	Land Feature Labels	Point
*AREA***lu**	Land Use	Region
*AREA***ot**	Other Transportation	Point, Line, Region
*AREA***ph**	Physiography	Point, Line, Region
*AREA***prl**	Parks and Recreation - Points	Line
*AREA***prp**	Parks and Recreation - Lines	Point
*AREA***prr**	Parks and Recreation - Regions	Region
*AREA***pt**	Pipelines and Transmission	Point, Line, Region
*AREA***rl**	Rail and Transit Lines	Line

About CanMap® RouteLogistics *(cont'd)*

Layer Name	Description	Feature Type
*AREA***ve**	Vegetation	Region
*AREA***we**	Wetlands	Region
*AREA***wl**	Water Feature Labels	Point

All two-character Topo layer names are suffixed with a "p" (point), "l" (line/polyline), or "r" (region) to indicate the object type contained within the file. For example, the "hy" (Hydrography) theme is provided as "hyp" (containing points), "hyl" (containing lines), and "hyr" (containing regions) files. All topographic layers may not be available for all geographical areas.

For more information regarding these layers refer to the *Data Dictionary* of CanMap RouteLogistics User Manual.

Using CanMap® RouteLogistics

Viewing DMTI Spatial Products

Packaged with DMTI Spatial products are several custom viewing files for MapInfo® Professional, ESRI® ArcView® GIS and ESRI® ArcGIS®.

Software	Extension	Version Support
MapInfo Professional	*.wor	Version 7.5 and higher
ESRI ArcView GIS	*.apr	Version 3.2 and higher
ESRI ArcGIS	*.mxd	Version 10.0 and higher

Located in the product directory, these viewing files have been provided to maximize the ease of use of DMTI Spatial products by intelligently layering various data layers and displaying them based on appropriate viewing scales.

Viewing CanMap RouteLogistics

There are currently two viewing files available for reference, mapping and analysis.

Filename	Description
*AREA***rte**	Offers a limited number of files for reference purposes only. Opens and zoom-layers capital cities, populated placenames, roads, major roads and highways, highways, municipality boundaries, and national water.
*AREA***rtp**	Offers most of the files in the CanMap RouteLogistics product for mapping and analysis. Opens and zoom-layers almost all of the CanMap RouteLogistics. Includes labeling of roads, major roads & highways, highways, populated placenames, municipality boundaries, regional municipality boundaries, provincial boundaries.

CanMap RouteLogistics workspaces or project files are found in the product directory:

example: \CanMapRL\ON*ON***rte**

Product Directory	Geographic Area Directory	Geographic Area Abbreviation	Workspace/ Project File Type
CanMapRL	ON	ON	rte

Using CanMap® RouteLogistics *(cont'd)*

Suggested Layering for CanMap Streetfiles

If you wish to view the CanMap product without the aid of the provided viewing files or the format purchased does not come with them, DMTI Spatial™ recommends using the following layering system to view your CanMap product:

Layer list

Layer	Description
cap	Capital Cities
xit	Highway Exits
llp	Land Feature Labels
wlp	Water Feature Labels
aer	Aerodromes
cpl	Car Pool Lots
edu	Education
glf	Golf Courses
hcr	Health Care
ppn	Populated Placenames
tol	Toll Booths
trs	Transportation Stops
wgh	Weigh Stations
prp	Parks and Recreation - Points
ptp	Pipelines and Transmission - Points
otp	Other Transportation – Points
bpp	Building Points
hsp	Hydrographic Structures - Points
irp	Industrial and Resource - Points
php	Physiography - Points
hyp	Hydrography - Points
prl	Parks and Recreation - Lines
ptl	Pipelines and Transmission - Lines
otl	Other Transportation - Lines
bfr	Building Footprints
rll	Rail – Lines

Using CanMap® RouteLogistics *(cont'd)*

Layer	Description
rte	Roads
hrd	Major Roads and Highways
hwy	Highways
hsl	Hydrographic Structures – Lines
irl	Industrial and Resource – Lines
phl	Physiography – Lines
hyl	Hydrography – Lines
ptr	Pipelines and Transmission - Regions
otr	Other Transportation - Regions
hsr	Hydrographic Structures - Regions
irr	Industrial and Resource - Regions
phr	Physiography - Regions
wer	Wetlands
hyr	Hydrography - Regions
prr	Parks and Recreation - Regions
ver	Vegetation
lur	Land Use
wat	National Water
fsa	Forward Sortation Areas
top	Topographic Coverage Areas
rmn	Regional Municipality Boundaries
mun	Municipality Boundaries
prv	Provincial Boundaries
acb	Area Code Boundaries
lnk	Canada\USA Roads Linkages
ren	Relative Elevation Nodes
rte_lut	RouteLogistics Lookup Table
trn	Turn Restrictions Table (dbf)
trr	Transportation Route Restrictions
rds_lut	Roads Lookup Table
tzs	Time Zones (Standard Time)
tzv	Time Zones (Daylight Savings Time)

Data Dictionary

Alternate Street Types (alt_types)

Layer Location

\Streets*AREA***alt_types**

Layer Structure

Field Name	Type	Size	Description
RDS_ID	Number	9,0	UniqueId of related Roads (rds) segment
ALT_TYPE	String	20	Alternate Street Type
LANGUAGE	String	2	Indicates the language of the street type (English or French)
PLACEMENT	String	2	Indicates if the alternate type is a prefix type or suffix type

Field Content:

Table contains the alternate bilingual street type present for the street names within the file

Area Code Boundaries (acb)

Layer Location

\Canada\CANacb

Layer Structure

Field Name	Field Type	Field Size	Description
AREA_CODE	String	8	Area Code
AREA_PROV	String	8	Provincial/Territorial Abbreviation. Records may contain multiple abbreviations where area codes are shared between provinces or territories.

Layer Content

Based on CanMap Municipality Boundaries, area code boundaries represent Canadian telephone area codes. In the North American telephone system, an area code is a three-digit code delineating a "toll" and is distributed according to the North American Number Plan (NANP). An area code is also referred to as a Number Plan Area or NPA. [3]

Province	Area Code
AB	403
AB	780/587
BC	250
BC	604/778
MB	204
NB	506
NL	709
NS/PE	902
ON	416/647
ON	519/226

Province	Area Code
ON	343/613
ON	705
ON	807
ON	905/289
QC	418
QC	450
QC	514
QC	819
SK	306
YT/NT/NU	867

[3] Source: North American Numbering Plan Administration, September 2003

Capital Cities (cap)

Layer Location

\Canada\CANcap

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	String	68	Name of City
PROV	String	2	Provincial/Territorial Abbreviation

Layer Content

Derived from CanMap Populated Placenames, capital cities represent all provincial and territorial capital cities and the national capital city.

Provincial Boundaries (prv)

Layer Location

\Canada\CANprv

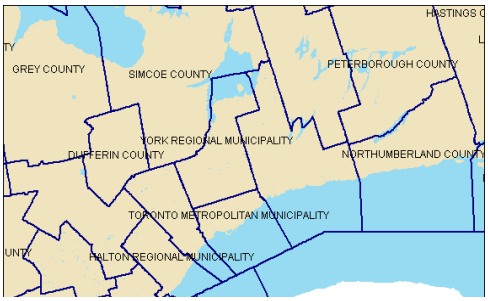
Layer Structure

Field Name	Field Type	Field Size	Description
NAME	String	25	Provincial/Territorial Name
POP2001	Number	8	Population 2001
DWELL2001	Number	7	Dwelling Count
AREA_SQKM	Number	19	Area per square km
POP_SQKM	Number	19	Population per square km
PROV	String	2	Provincial/Territorial Abbreviation

Layer Content

The Provinces layer is comprised of the 10 Provinces and 3 Territories that define Canada for political administrative purposes. DMTI Spatial Provinces and Territories correspond to Statistics Canada 2001 Provinces and Territories (PR)

Regional Municipality Boundaries (rmn)



Layer Location

\Canada\CANrmn

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	String	46	Municipal Name
POP2001	Number	8	Population 2001
DWELL2001	Number	7	Dwelling Count
AREA_SQKM	Number	12	Area per square km
POP_SQKM	Number	13	Population per square km
PROV	String	2	Provincial/Territorial Abbreviation

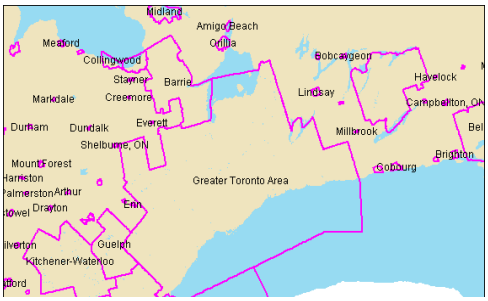
Layer Content

The Regional Municipalities layer is comprised of intermediate political administrative areas between the Province/Territories and Municipalities. DMTI Spatial Regional Municipalities correspond to Statistics Canada 2001 Census Divisions (CD).

Field Content

Type	Description
CTY	County
CU	Communauté urbaine
DIS	District
DIV	Census Division
DM	District Municipality
MRC	Municipalité régionale de comté
RD	Regional District
REG	Region
RM	Regional Municipality
TER	Territory
UC	United Counties

Topographic Coverage Areas (top)



Layer Location

\Canada\CANtop

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	String	68	Topographic Coverage Area Name[4]
NAME_ABBR	String	5	Topographic Coverage Area Abbreviation
PROV	String	2	Provincial/Territorial Abbreviation

Layer Content

Topographic coverage areas represent areas across Canada where DMTI provides topographic data. Topographic data includes general land-use classifications, building footprints, transportation and utility features, hydrographical features, and physiographical features. Currently there are over 700 topographic coverage areas across the country.

[4] Refer to Appendix H: Canadian Urban Areas and Abbreviations for more information.

Time Zones – Standard Time (tzs) / Daylight Savings Time (tzd)

Layer Location

\Canada\CANtzs
\Canada\CANtzd

Layer Structure

Field Name	Field Type	Field Size	Description
ZONE_NAME	String	30	Time Zone Name
ZONE_ABBR	String	3	Time Zone Abbreviation
DEVFROMUTC	String	5	The difference in hours from Coordinated Universal Time (UTC) or Greenwich Mean Time (GMT)

Layer Content

Canada has six time zones, which are regulated by provincial and territorial governments. In each time zone Standard or Daylight Saving time might be specified. For example, in Ontario, Eastern Standard Time is denoted as Coordinated Universal Time ("UTC") less 6 hours or Eastern Daylight Time as UTC – 4h. In most regions in Canada, Daylight Savings Time begins on the first Sunday of April and ends on the last Sunday of October.

In some parts of Canada, observed time practice differs from official legislated time. The time zones in DMTI Spatial's time zone data are derived from provincial and territorial legislation and regulations that were in effect as of April 1, 2001 (Legislated Time Zones). [5]

[5] Refer to Appendix I: Exceptions to Official Time in Canada for more information.

National Water (wat)

Layer Location

\Canada\CANwat

Layer Structure

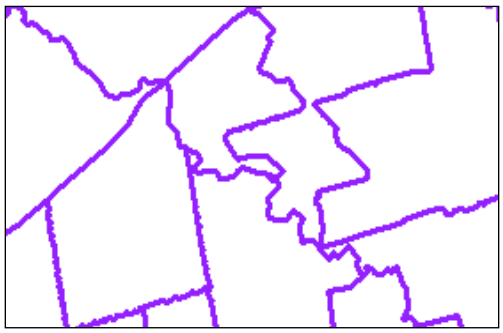
Field Name	Field Type	Field Size	Description
NAME	String	40	Lake/River Name

Layer Content

The national water layer contains generalized major water bodies derived from a variety of sources at scales ranging from 1:50 000 to 1:30 000 000.[6]

[6] For more information refer to Appendix J: Unshorelined and Shorelined Boundaries

Forward Sortation Areas (fsa)



Layer Location

\Streets*AREA***fsa**

Layer Structure

Field Name	Type	Size	Description
FSA	String	3	Forward Sortation Area
PROV	String	2	Province Abbreviation[7]
PROV_CODE	String	2	Province Code[8]

[7] Source: Canada Post Corporation, The Canadian Addressing Guide, October 2002
[8] Source: Statistics Canada, Standard Geographical Classification (SGC), 2001

Layer Content

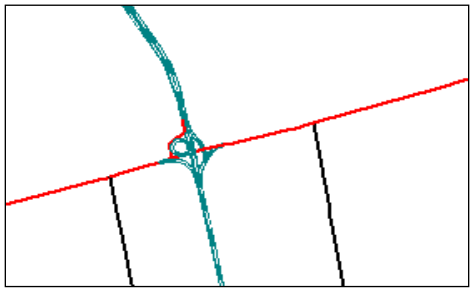
The first three characters of a postal code represent the Forward Sortation Area (FSA) indicating a geographic area in an urban or rural area. The first character of the Forward Sortation Area identifies one of the 18 major geographic areas, provinces or districts.

The second numeric character (numerals 0-9) of the Forward Sortation Area Boundary identifies either an urban postal code or a rural postal code. Rural postal code are represented by the numeral 0 (zero) for example, A0A) and are serviced by rural route drivers and/or postal outlets. An urban postal code is represented by the numerals 1 to 9 for example, E2J and are generally serviced by letter carrier or community mailboxes.

The third character of the Forward Sortation Area segment (E2J) in conjunction with the first two characters, describes an area of a city or town or other geographic area.

First Letter of FSA	Geographic Area
A	Newfoundland & Labrador
B	Nova Scotia
C	Prince Edward Island
E	New Brunswick
G	Quebec (east)
H	Québec (metropolitan Montréal)
J	Quebec (west)
K	Ontario (east)
L	Ontario (central)
M	Ontario (metropolitan Toronto)
N	Ontario (southwest)
P	Ontario (northern)
R	Manitoba
S	Saskatchewan
T	Alberta
V	British Columbia
X	Northwest Territories/Nunavut
Y	Yukon Territory

Major Roads and Highways (hrd)



Layer Location

\Streets*AREA***hrd**

Layer Structure

Field Name	Field Type	Field Size	Description
STREET	String	69	Street Name
CARTO	Number	3,0	Cartographic Road Classification
LEFT_MAF	String	70	Municipal Amalgamation
RIGHT_MAF	String	70	Municipal Amalgamation
LEFT_FSA	String	3	Forward Sortation Area
RIGHT_FSA	String	3	Forward Sortation Area
LEFT_PRV	String	2	Provincial/Territorial Abbreviation
RIGHT_PRV	String	2	Provincial/Territorial Abbreviation
UNIQUEID	Number	9,0	Unique Identifier of Street segment

Highways (hwy)

Layer Location

\Streets*AREA***hwy**

Layer Structure

Field Name	Type	Size	Description
STREET[9]	String	69	Street Name
CARTO[10]	Number	3,0	Cartographic Road Classification
LEFT_MAF	String	70	Municipal Amalgamation
RIGHT_MAF	String	70	Municipal Amalgamation
LEFT_FSA	String	3	Forward Sortation Area
RIGHT_FSA	String	3	Forward Sortation Area
LEFT_PRV	String	2	Provincial/Territorial Abbreviation
RIGHT_PRV	String	2	Provincial/Territorial Abbreviation
UNIQUEID	Number	9,0	Unique Identifier of Street segment

[9] For more information refer to Appendix C: Street Types and Street Directions
[10] For more information refer to Appendix D: Cartographic Road and Rail Classifications

Canada\USA Roads Linkages (lnk)

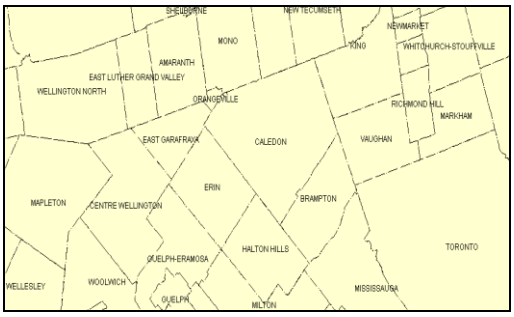
Layer Location

\Streets*AREA*__lnk__

Layer Structure

Field Name	Type	Size	Description
RDS_ID	Number	9,0	UniqueId of related Roads (rds) segment
CAN_STREET	String	69	Canadian Street at Roads Linkage
PROV	String	2	Provincial/Territorial Abbreviation
USA_STREET	String	69	American Street at Roads Linkage
STATE	String	2	State Abbreviation
PORT_ENTRY	String	100	Port of Entry Name (where applicable)
LONGITUDE	Number	11,6	Longitude of Roads Linkage
LATITUDE	Number	11,6	Latitude of Roads Linkage

Municipal Amalgamation File (maf)



Layer Location

\MAF*AREA***maf**

Layer Structure

Field Name	Field Type	Field Size	Description
UNIQUE_ID	Number	9	Unique identifier for each municipality
NAME	String	70	Municipality name
PROV	String	2	Provincial/Territorial Abbreviation.
TYPE	String	3	Municipality type
EFF_DATE	String	8	Date the municipal amalgamation change comes into effect. Date appears in YYYYMMDD format. Null records indicate that amalgamations have not occurred.

Layer Content

The Municipal Amalgamation File (MAF) is a supplementary municipality boundary with CanMap® Streetfiles and CanMap® RouteLogistics and reflects recent changes to any amalgamated municipal boundaries, their subsequent changes to name, municipality type and date of amalgamation. An amalgamation is defined as a consolidation of two or more entire municipalities.

Derived from Statistics Canada 2011 Census the Municipal Amalgamation file contains:

- Municipal amalgamations that have occurred since the 2011 Census
- Municipal amalgamations based on provincial/territorial sources
- Census Subdivision Name and Type revisions from the 2011 Census

Municipality type refers to the census subdivision (CSD) type definition given to a municipality by Statistics Canada. "CSD" is the general term for municipalities (as determined by provincial legislation) or areas treated as municipal equivalents for statistical purposes (for example, Indian reserves, Indian settlements and unorganized territories).

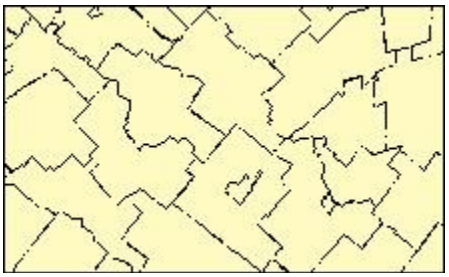
Census subdivisions (CSDs) are classified into 46 types according to official designations adopted by provincial or federal authorities." The following table provides a list of CSD types and their abbreviations:[11]

Type	Description
C	City
CC	Chartered Community
CM	County (Municipality)
COM	Community
CT	Canton (Municipalité de)
CU	Cantons unis (Municipalité de)
DM	District Municipality
HAM	Hamlet
ID	Improvement District
IGD	Indian Government District
IM	Island Municipality
LGD	Local Government District
LOT	Township and Royalty
M	Municipalité
MD	Municipal District
NH	Northern Hamlet
NL	Nisga'a Land
NV	Northern Village
NVL	Nisga'a Village
P	Paroisse (Municipalité de)
PAR	Parish
R	Indian Reserve / Réserve indienne
RC	Rural Community

Type	Description
RDA	Regional District Electoral Area
RG	Region
RGM	Regional Municipality
RM	Rural Municipality
RV	Resort Village
S-E	Indian Settlement / Établissement indien
SA	Special Area
SCM	Subdivision of County Municipality
SET	Settlement
SM	Specialized Municipality
SUN	Subdivision of Unorganized
SV	Summer Village
T	Town
TI	Terre inuite
TL	Teslin Land
TP	Township
TR	Terres réservées
UNO	Unorganized / Non-oraganisé
V	Ville
VC	Village cri
VK	Village naskapi
VL	Village
VN	Village nordique

[11] Source: Statistics Canada, Standard Geographical Classification (SGC), 2001

Municipality Boundaries (mun)



Layer Location

\Streets*AREA***mun**

Layer Structure

Field Name	Type	Size	Description
NAME	String	70	Municipality Name
TYPE	String	3	Municipality Type
POP2001	Number	8,0	2001 Census Population Count
DWELL2001	Number	7,0	2001 Census Dwelling Count
AREA_SQKM	Double	12,4	Area (square kilometers) from Statistics Canada Land Base
POP_SQKM	Double	13,4	Population Density (per square kilometer)
PROV	String	2	Provincial/Territorial Abbreviation

Layer Content

The Municipalities layer is comprised of political administrative entities such as cities, towns, or villages. The DMTI Spatial Municipalities layer corresponds to the Statistics Canada 2001 Census Subdivisions (CSD).

Field Content

Type

The Municipality Type is used to help distinguish Municipalities having the same name from one another.
The Municipality Types correspond to the Statistics Canada 2001 Census Subdivision (CSD) Types.

Type	Description
C	City – Cité
CC	Chartered Community
CM	County (Municipality)
COM	Community
CT	Canton (Municipalité de)
CU	Cantons unis (Municipalité de)
DM	District Municipality
HAM	Hamlet
ID	Improvement District
IGD	Indian Government District
IM	Island Municipality
LGD	Local Government District
LOT	Township and Royalty
M	Municipalité
MD	Municipal District
NH	Northern Hamlet
NL	Nisga'a Land
NV	Northern Village
NVL	Nisga'a Village
P	Paroisse (Municipalité de)
PAR	Parish
R	Indian Reserve - Réserve indienne
RC	Rural Community
RDA	Regional District Electoral Area
RG	Region
RGM	Regional Municipality
RM	Rural Municipality
RV	Resort Village
S-E	Indian Settlement - Établissement indien
SA	Special Area
SCM	Subdivision of County Municipality
SET	Settlement
SM	Specialized Municipality
SUN	Subdivision of Unorganized
SV	Summer Village
T	Town
TI	Terre inuite
TL	Teslin Land
TP	Township
TR	Terres réservées
UNO	Unorganized - Non organisé
V	Ville

Type	Description
VC	Village cri
VK	Village naskapi
VL	Village
VN	Village nordique

Roads Look Up Table (rds_lut)

Layer Location

\Streets*AREA***rds_lut**

Layer Structure

Field Name	Type	Size	Description
RDS_ID	Number	9,0	UniqueId of related Roads (rds) segment
ALIAS_NAME	String	69	Alternate Street Name
FORMERNAME[12]	String	69	Former Provincial Hwy Name
HWY_NUM	String	20	Highway Number(s) (e.g. 404)
HWY_NUMNAM	String	69	Highway Numeric Name (e.g. Highway 404)
HWY_NAME	String	69	Highway Name Non-Numeric (e.g. Don Valley Pky)
RD_NUM	String	20	Road Number (e.g. 4)
RD_NUMNAM	String	69	Road Numeric Name (e.g. Regional Rd 4)
RD_NAME	String	69	Road Name Non-Numeric (e.g. Taunton Rd W)
ALASKAHWY	Number	1,0	Alaskan Highway flag
CARIBOOHWY	Number	1,0	Cariboo Highway flag
CRWSNSTHWY	Number	1,0	Crowsnest Highway flag
DEMPSTRHWY	Number	1,0	Dempster Highway flag
JOHNHRTHWY	Number	1,0	John Hart Highway flag
KLONDKEHWY	Number	1,0	Klondike Highway flag
MCKNZIEHWY	Number	1,0	Mackenzie Highway flag
TRNSCDAHWY	Number	1,0	TransCanada Highway Flag
YELOWHDHWY	Number	1,0	Yellow Head Highway Flag
TOLL_RD	Number	1,0	Toll Road Flag
BRIDGE	Number	1,0	Bridge Flag
TUNNEL	Number	1,0	Tunnel Flag
BRUNNELNAM	String	69	Bridge/Tunnel Name
TRAILNAME	String	100	Trail Name
TRAILTYPE	String	50	Trail Type
TRAILCLASS	String	20	Trail Class
TRAILCODE	Number	4,0	Trail Code

[12] Applicable only in Ontario

Csd Look Up Table (rds_csd)

Layer Location

\Streets*AREA***rds_csd**

Layer Structure

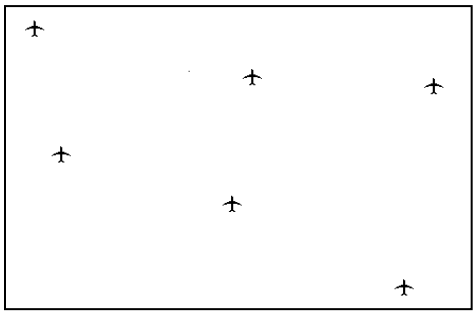
Field Name	Type	Size	Description
RDS_ID	Number	9,0	UniqueId of related Roads (rds) segment
L_MUN_96	String	68	Municipality (1996 Census based)
R_MUN_96	String	68	Municipality (1996 Census based)
L_MUN_01	String	68	Municipality (2001 Census based)
R_MUN_01	String	68	Municipality (2001 Census based)
L_MUN_06	String	68	Municipality (2006 Census based)
R_MUN_06	String	68	Municipality (2006 Census based)
L_MUN_11	String	68	Municipality (2011 Census based)
R_MUN_11	String	68	Municipality (2011 Census based)
L_MUN_16	String	68	Municipality (2011 Census based)
R_MUN_16	String	68	Municipality (2011 Census based)

Trail Classes, Types and Codes

TrailCode	TrailType	TrailClass
1000	OTHER PARK	PARK
1001	NATIONAL PARK	PARK
1002	PROVINCIAL PARK	PARK
1003	MUNICIPAL PARK	PARK
1004	CONSERVATION AREA	PARK
1005	NATIONAL HISTORIC SITE	PARK
1006	WILDLIFE/NATURE SANCTUARY	PARK
1007	EXHIBITION GROUNDS	PARK
2000	OTHER RECREATIONAL	RECREATIONAL
2001	HIKING/WALKING	RECREATIONAL
2002	BIKING	RECREATIONAL
2003	RIDING	RECREATIONAL
2004	SNOWMOBILE	RECREATIONAL
2005	SKIING	RECREATIONAL
2006	GOLF COURSE	RECREATIONAL
2007	PORTAGE	RECREATIONAL
3000	OTHER PRIVATE	PRIVATE
3001	TOWNHOUSE/CONDOMINIUM	PRIVATE

3002	SHOPPING MALL	PRIVATE
3003	TRAILER PARK	PRIVATE
3004	LOGGING ROAD	PRIVATE
3005	CEMETERY	PRIVATE
3006	ALLEY WAY	PRIVATE
3007	AIRPORT/HELIPORT	PRIVATE
3008	ABANDONED RAILWAY	PRIVATE
3009	INDUSTRIAL	PRIVATE
3010	FOREST SERVICE ROAD	PRIVATE
3011	REST AREA	PRIVATE
3012	SERVICE STATION	PRIVATE
3013	ABANDONED ROAD	PRIVATE
3014	COUNTRY CLUB	PRIVATE
3015	HOTEL/MOTEL	PRIVATE
3016	RETAIL/OFFICE	PRIVATE
4000	OTHER EMERGENCY SERVICES	EMERGENCY SERVICES
4001	HOSPITAL	EMERGENCY SERVICES
4002	FIRE ACCESS	EMERGENCY SERVICES
4003	EMERGENCY SERVICES ROAD	EMERGENCY SERVICES
5000	OTHER EDUCATIONAL	EDUCATIONAL
5001	PRIVATE ELEMENTARY SCHOOL	EDUCATIONAL
5002	PUBLIC ELEMENTARY SCHOOL	EDUCATIONAL
5003	PRIVATE HIGHSCHOOL	EDUCATIONAL
5004	PUBLIC HIGHSCHOOL	EDUCATIONAL
5005	UNIVERSITY	EDUCATIONAL
5006	COLLEGE	EDUCATIONAL
5007	MILITARY SCHOOL	EDUCATIONAL
5008	SEPARATE ELEMENTARY SCHOOL	EDUCATIONAL
5009	SEPARATE HIGHSCHOOL	EDUCATIONAL
6000	OTHER GOVERNMENT	GOVERNMENT
6001	EXPERIMENTAL FARM	GOVERNMENT
6002	DEPARTMENT OF NATIONAL DEFENCE	GOVERNMENT
6003	CORRECTIONAL FACILITY	GOVERNMENT
6004	WEIGH STATION	GOVERNMENT
6005	PEDESTRIAN WALK WAY	GOVERNMENT
6006	POLICE TRAINING FACILITY	GOVERNMENT
6007	SEWAGE OR WATER TREATMENT FACILITY	GOVERNMENT
6008	NO PUBLIC ACCESS/BUS ROUTE	GOVERNMENT
6102	DEPARTMENT OF NATIONAL DEFENCE: ROUTABLE	GOVERNMENT
7000	LIMITED USE ROAD: OTHER	LIMITED USE ROAD
7001	LIMITED USE ROAD: WINTER	LIMITED USE ROAD
7002	LIMITED USE ROAD: DRY WEATHER	LIMITED USE ROAD
7003	LIMITED USE ROAD: CART TRACK	LIMITED USE ROAD

Aerodromes (aer)



Layer Location

\POI*AREA***aer**

Layer Structure

Field Name	Type	Size	Description
NAME	String	150	Aerodrome name
CITY	String	68	City (or closest Municipality)
PROV	String	2	Province Abbreviation
ICAO_CODE	String	4	4 Character Aerodrome Location Indicator
IATA_CODE	String	3	3 Character Aerodrome Location Indicator
AER_TYPE	String	10	Description of type of Aerodrome
STATUS	String	10	Operational status of Aerodrome
NAME_ALIAS	String	125	Aerodrome name alias
PREC_CODE	String	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	String	2	Code indicating the accuracy of the attribute data
POI_ID	String	15	Unique ID

Layer Content

Name

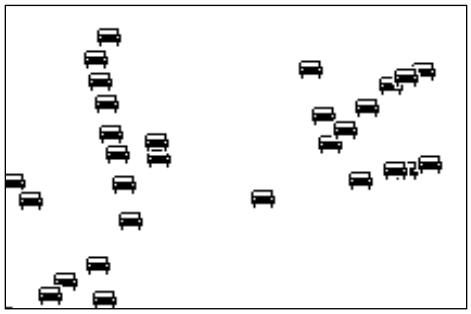
When the geographic location is not reflected in the Aerodrome name, the name of the community is placed before the Aerodrome name separated by a forward slash.

Name_Alias

Provides a commonly used name.

Aerodrome Name	Community Name	Other Name	Name Alias
Toronto/Lester B. Pearson Intl	Toronto	Lester B. Pearson Intl	Lester B Pearson International Airport
Montréal/St-Hubert	Montréal	St-Hubert	Aeroport de Saint-Hubert
Calgary/Springbank	Calgary	Springbank	Calgary Springbank Airport

Car Pool Lots (cpl)



Layer Location

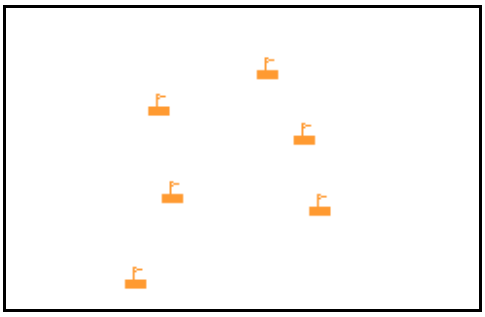
\POI*AREA***cpl**

Layer Structure

Field Name	Type	Size	Description
NAME	String	150	Car Pool Lot name
LOCATION	String	100	Car Pool Lot Location
CITY	String	68	City (or closest Municipality)
PROV	String	2	Province (Abbreviation)
EXIT_NUM	String	5	Highway Exit Number at Car Pool Lot Location
DIRECTION	String	2	Direction of Highway at Car Pool Lot Location
PREC_CODE[13]	String	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	String	2	Code to indicate the accuracy of the attribute data
POI_ID	String	15	Unique ID

[13] Refer to the Appendix D: Geographical Placement of Data for more information.

Education (edu)



Layer Location

\POI*AREA***edu**

Layer Structure

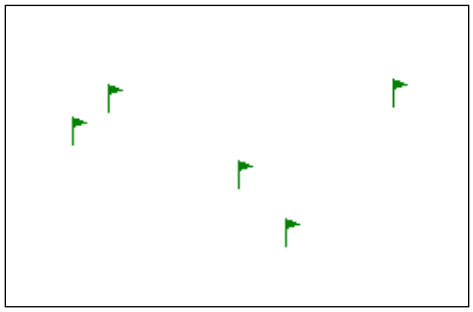
Field Name	Type	Size	Description
NAME	String	150	Educational facility name
PREC_CODE[14]	String	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	String	2	Code to indicate the accuracy of the attribute data
POI_ID	String	15	Unique ID

Layer Content

Includes Elementary, High Schools, Colleges, Cégeps and Universities.

[14] Refer to the Appendix D: Geographical Placement of Data for more information.

Golf Courses (glf)



Layer Location

\POI*AREA***glf**

Layer Structure

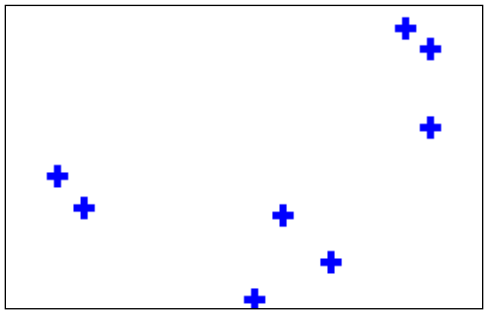
Field Name	Type	Size	Description
NAME	String	150	Golf Course name
PREC_CODE[15]	String	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	String	2	Code to indicate the accuracy of the attribute data
POI_ID	String	15	Unique ID

Layer Content

Includes both Private and Public golf courses as well as their locations, phone numbers and number of holes.

[15] Refer to the Appendix D: Geographical Placement of Data for more information.

Health Care (hcr)



Layer Location

\POI*AREA***hcr**

Layer Structure

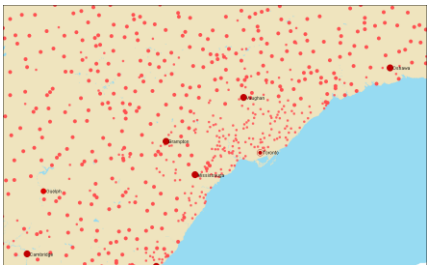
Field Name	Type	Size	Description
NAME	String	150	Health Care facility name
PREC_CODE[16]	String	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	String	2	Code to indicate the accuracy of the attribute data
POI_ID	String	15	Unique ID (link to main POI database)

Layer Content

Includes Hospitals, Long-Term Care Centers, Nursing Stations, Outpatient Clinics and Community Health Centers.

[16] Refer to the Appendix D: Geographical Placement of Data for more information.

Populated Placenames (ppn)



Layer Location

\POI*AREA***ppn**

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	String	68	Placename
PROV	String	2	Provincial/Territorial Abbreviation
LONGITUDE	Number	11,6	Longitude of Populated Placename
LATITUDE	Number	11,6	Latitude of Populated Placename
PPN_CODE	Number	3,0	Populated Placename Code
PREC_CODE	Number	2,0	Code indicating the positional accuracy or precision of the geocoded feature
MJR_CITY	Number	1,0	Identifies cities with populations > 100,000
CAPITAL	Number	1,0	Identifies provincial capital cities and the national capital
PRCDCSD	String	8	2001 Census Subdivision (CSD) code in which the placename is located
CSD_NAME	String	68	2001 Census Subdivision (CSD) name in which the placename is located
CSD_POP01	Number	8,0	Census Subdivision (CSD) population (2001) in which the placename is located
PPN_ID	Number	11, 0	Unique ID assigned to every PPN
RETIRED	Number	11	This flag indicates those Populated Place Names which are no longer considered valid in official government documents. A value of 1 indicates that the name is no longer valid. A value of 0 indicates that the name is still valid.

Layer Content

Based on both the Canadian Geographic Names Database[17] and Statistics Canada, the CanMap Populated Placenames file provides a rich and extensive layer of cities, towns, villages and communities across Canada. CanMap Populated Placenames have been enhanced by verifying and aligning points with CanMap® Streetfiles.

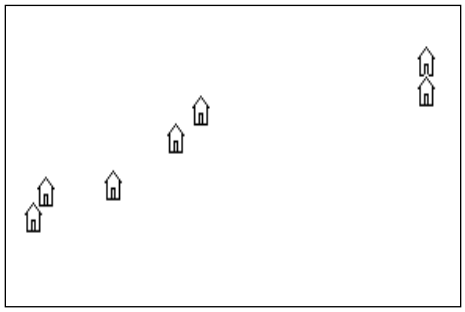
PPN_Code	Type of Populated Placename
101	Capital City
100	Major City
1	Minor City
2	Town
3	Urban Community
4	Urban Fringe
5	Urban Area
6	Rural Community

PPN Precision Code

PPN_Code	Type of Populated Placename
101	Capital City
100	Major City
1	Minor City
2	Town
3	Urban Community
4	Urban Fringe
5	Urban Area
6	Rural Community

[17] Source: Natural Resources Canada, Canadian Geographical Names Database (CGNDB), 1999

Toll Booths (tol)



Layer Location

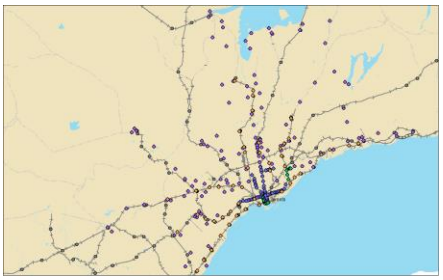
\POI*AREA***tol**

Layer Structure

Field Name	Type	Size	Description
NAME	String	150	Toll Booth name
LOCATION	String	100	Toll Booth location
CITY	String	68	City (or closest Municipality)
PROV	String	2	Province (Abbreviation)
DIRECTION	String	2	Direction of Highway at Car Pool Lot Location
PREC_CODE[18]	String	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	String	2	Code to indicate the accuracy of the attribute data
POI_ID	String	15	Unique ID

[18] Refer to the Appendix D: Geographical Placement of Data for more information.

Transportation Stops (trs)



Layer Location

\POI*AREA***trs**

Layer Structure

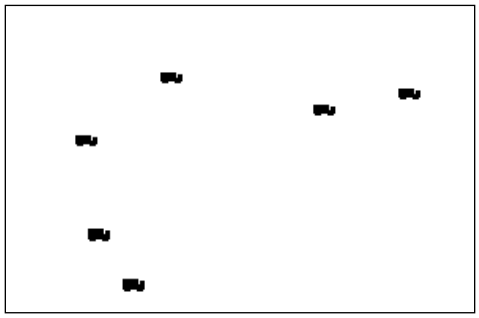
Field Name	Type	Size	Description
NAME	String	150	Transportation Stop name
CITY	String	68	City or municipality
PROV	String	2	Provincial/Territorial Abbreviation
TRS_TYPE	String	25	Transportation Stop classification (if available)
OWNER	String	68	Transportation Stop owner/operator
ROUTE	String	100	Transportation Stop Route
TRS_NUM	String	8	Transportation Stop number (if available)
CODE	Number	4,0	Classification Code
PREC_CODE	String	2	Precision Code
ATTRIB_CODE	String	2	Attribute Code
POI_ID	String	15	Transit Stop unique identifier (Unique ID)

- Bus and Rail Transit stops have been merged with the Railway Stops to create a Transportation Stops layer. Some fields were added and others changed name or type to accommodate the transit data. See table above for descriptions of each field.

Layer Content

CODE	FEATURE
150	BUS STOP
151	BUILDING: RAPID TRANSIT STATION
152	BUILDING: LIGHT RAIL TRANSIT STATION
154	BUILDING: COMMUTER RAIL STATION
155	BUILDING: RAILWAY STATION

Weigh Stations (wgh)



Layer Location

\POI*AREA***wgh**

Layer Structure

Field Name	Type	Size	Description
NAME	String	150	Name of Weigh Station
LOCATION	String	100	Location of Weigh Station
DELIV_MODE	String	25	P.O. Box# or Unit#
CITY	String	68	City (or closest Municipality)
PROV	String	2	Province
POST_CODE	String	7	Postal Code
PHONE	String	15	Telephone#
FAX	String	15	Fax#
WGH_TYPE	String	10	Permanent or Portable Scale
DIRECTION	String	2	Indicates the direction of road scale is on
HOURS	String	20	Hours of operation
YEAR_ROUND	Number	1,0	Year Round operation
RESTROOM	Number	1,0	Restrooms available
AVION401	Number	1,0	Avion 401 automated clearance system
PREC_CODE	String	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	String	2	Code indicating the accuracy of the attribute data
POI_ID	String	15	Unique ID

Building Footprints (bfr)

Layer Location

\Topo*AREA***bfr**

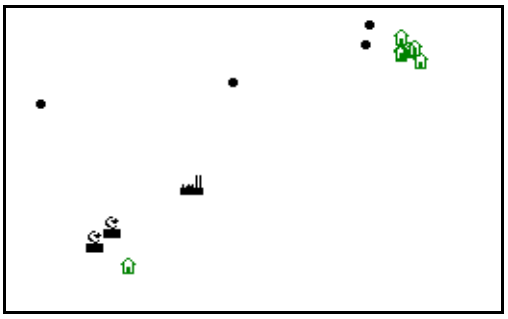
Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type
CATEGORY	String	40	Feature Category

Layer Content

Code	Feature
106	ARENA
107	ARMOURY
108	AUTOMOBILE PLANT
109	BARN/MACHINERY SHED
111	CEMENT PLANT
112	CHEMICAL PLANT
113	CHURCH
114	CITY HALL
115	COAST GUARD STATION
116	COLLEGE
117	COMMUNITY CENTRE
118	CONVENT
119	CORRECTIONAL INSTITUTE
120	COURTHOUSE
120	COURT HOUSE
121	CUSTOMS POST
122	DOME
123	ELECTRIC POWER STATION
124	FACTORY
125	FILTRATION PLANT
126	FIRE STATION
127	FIRE/POLICE STATION
128	FISH HATCHERY
129	FISH PROCESSING PLANT
130	GRAIN ELEVATOR
131	HALL
132	HIGHWAY SERVICE CENTRE
133	HOSPITAL
134	HOSTEL
135	HOTEL
136	KILN (TOBACCO)
137	LUMBER MILL
139	MEDICAL CENTRE
140	MONASTERY
141	MOTEL
142	MUNICIPAL HALL
143	MUSEUM
144	NON-CHRISTIAN PLACE OF WORSHIP
145	OBSERVATORY
146	OIL/GAS FACILITIES BUILDING
146	GAS AND OIL FACILITIES
147	OTHER
149	PARLIAMENT BUILDING
150	PENITENTIARY
151	PETROLEUM REFINERY
152	PLANT
153	POLICE STATION
154	PULP/PAPER MILL
155	RAILWAY STATION
156	REFORMATORY
157	SANATORIUM
158	SATELLITE-TRACKING STATION
159	SAWMILL
160	SCHOOL
161	SEMINARY
162	SENIOR CITIZENS HOME
163	SEWAGE TREATMENT PLANT
164	SHIPYARD
165	SHOPPING CENTRE
166	SPORTSPLEX
167	STEEL MILL
168	TRADING POST
169	UNIVERSITY
170	WARDEN/RANGER STATION
171	WATER TREATMENT PLANT
172	WEIGH SCALE (HIGHWAY)
172	WEIGHT SCALE
174	GREENHOUSE
175	PENAL BUILDING
176	LODGING FACILITIES
177	INDUSTRIAL BUILDING
178	RELIGIOUS BUILDING
179	EDUCATIONAL BUILDING
585	FORT: GENERIC/UNKNOWN
585	FORT
618	GREENHOUSE
1220	STADIUM

Building Points (bpp)



Layer Location

\Topo*AREA***bpp**

Layer Structure

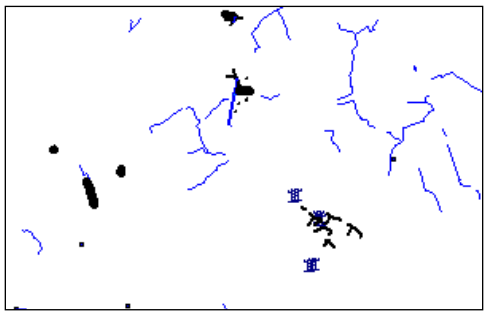
Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type
CATEGORY	String	40	Feature Category

Layer Content

Code	Feature
109	BARN/MACHINERY SHED
110	CABIN
113	CHURCH
114	CITY HALL
115	COAST GUARD STATION
118	CONVENT
122	DOME
123	ELECTRIC POWER STATION
125	FILTRATION PLANT
126	FIRE STATION
127	FIRE/POLICE STATION
128	FISH HATCHERY
129	FISH PROCESSING PLANT
130	GRAIN ELEVATOR
136	KILN (TOBACCO)
137	LUMBER MILL
140	MONASTERY

Code	Feature
144	NON-CHRISTIAN PLACE OF WORSHIP
146	OIL/GAS FACILITIES BUILDING
148	OUTBUILDING
151	PETROLEUM REFINERY
155	RAILWAY STATION
159	SAWMILL
163	SEWAGE TREATMENT PLANT
164	SHIPYARD
167	STEEL MILL
170	WARDEN/RANGER STATION
171	WATER TREATMENT PLANT
174	GREENHOUSE
178	RELIGIOUS BUILDING
250	CEMETERY
684	LOOKOUT
1119	SHRINE

Hydrographic Structures (hs)



Layer Location

\Topo\ *AREA***hsp – point feature type**
\Topo\ *AREA***hsl – line feature type**
\Topo\ *AREA***hsr – region/polygon feature type**

Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

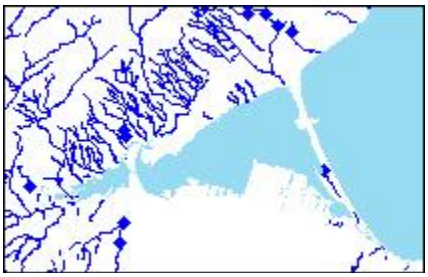
Layer Content

Code	Feature
58	BOAT RAMP
58	BOAT RAMP: GENERIC/UNKNOWN
80	BREAKWALL/BREAKWATER
80	BREAKWATER: UNKNOWN
275	CONDUIT: ABOVEGROUND, PENSTOCK
275	CONDUIT: GROUND LEVEL, PENSTOCK
276	CONDUIT: UNDERGROUND, PENSTOCK
277	CONDUIT: ABOVEGROUND, OTHER
277	CONDUIT: GROUND LEVEL, OTHER
278	CONDUIT: UNDERGROUND, OTHER
289	CONDUIT BRIDGE: GENERIC/UNKNOWN
359	DAM
360	DAM: OTHER
361	DAM: SLUICE GATE
405	DRYDOCK
429	DYKE/LEVEE
Code	**Feature**

429	DYKE/LEVEE: UNKNOWN
475	EXPOSED SHIPWRECK
486	FALLS
519	FISH LADDER
519	FISH LADDER: GENERIC/UNKNOWN
530	FISH POUND
530	FISH POUND: GENERIC/UNKNOWN
541	FLOODED AREA
651	IRRIGATION CANAL/DITCH
662	KELP: GENERIC/UNKNOWN
673	LOCK GATE: GENERIC/UNKNOWN
673	LOCK GATE
743	NAVIGABLE CANAL: ABANDONED
744	NAVIGABLE CANAL: OPERATIONAL
755	NAVIGATION BEACON
766	NAVIGATION LIGHT
766	NAVIGATIONAL AID: NAVIGATION LIGHT
767	NAVIGATIONAL AID: NAVIGATION BEACON
777	OBSTACLE IN WATER
847	PERMANENT SNOW AND ICE: OTHER
909	POND PARTITION: GENERIC/UNKNOWN
910	POND PARTITION: FISH POUND
911	POND PARTITION: RESERVOIR
912	POND PARTITION: WASTE
967	RAPIDS
979	RESERVOIR: OPEN, DRINKING WATER RESERVOIR
980	RESERVOIR: UNDERGROUND, DRINKING WATER RESERVOIR
981	RESERVOIR: OPEN,DUGOUT
982	RESERVOIR: OPEN,FILTRATION POND
1033	ROCK IN WATER
1044	ROCKY LEDGE/REEF
1044	ROCKY LEDGE/REEF: GENERIC/UNKNOWN
1108	SEAWALL
1108	SEAWALL: GENERIC/UNKNOWN
1163	SLIP
1174	SLUICE GATE
1209	SPRING
1209	SPRING: GENERIC/UNKNOWN
1453	WATER BODY: IRRIGATION CANAL
1503	WHARF
1503	WHARF: UNKNOWN
1514	WIND-OPERATED DEVICE: GENERIC/UNKNOWN
1666	LIQUIDS DEPOT/DUMPS: LIQUID WASTE, SEWAGE POND
Code	**Feature**

1667	LIQUIDS DEPOT/DUMP: LIQUID WASTE, SETTLING POND
1668	LIQUIDS DEPOT/DUMP: LIQUID WASTE, UNKNOWN
1669	LIQUIDS DEPOT/DUMP: WATER, OTHER
1670	LIQUIDS DEPOT/DUMP: WATER, FILTRATION POND
1671	LIQUID DEPOT/DUMP: WATER, DRINKING WATER
1681	HAZARD TO NAVIGATION: ROCK IN WATER
1682	HAZARD TO NAVIGATION: EXPOSED SHIPWRECK
1683	HAZARD TO NAVIGATION: OBSTACLE IN WATER
1701	WATER DISTURBANCE: FALLS
1702	WATER DISTURBANCE: RAPID
1710	UNDERGROUND RESERVOIR: GENERIC/UNKNOWN

Hydrography (hy)



Layer Location

\Topo*AREA***hyp – point feature type**
\Topo\ *AREA***hyl – line feature type**
\Topo\ *AREA***hyr – region/polygon feature type**

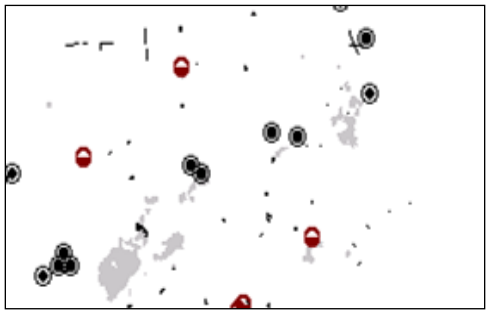
Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

Layer Content

Code	Feature
371	DISAPPEARING STREAM: OTHER
372	DISAPPEARING STREAM: SINKHOLE
1450	WATERBODY: INTERMITTENT/SLOUGH
1451	WATERBODY: IN STRING BOG
1452	WATERBODY: OTHER
1454	WATERBODY: FLOODED AREA
1463	WATERCOURSE: UNKNOWN

Industrial and Resource (ir)



Layer Location

\Topo*AREA***irp – point feature type**
\Topo\ *AREA***irl – line feature type**
\Topo\ *AREA***irr – region/polygon feature type**

Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

Layer Content

Code	Feature
34	AUTO WRECKER: GENERIC/UNKNOWN
34	AUTO WRECKER
347	CUT LINE: FIREBREAK
348	CUT LINE: OTHER
417	DUMP: ABANDONED
418	DUMP: OTHER
695	LUMBER YARD
695	LUMBER YARD: GENERIC/UNKNOWN
707	MINE: ABANDONED,N/A
708	MINE: OPERATIONAL,OPEN-PIT
709	MINE: OPERATIONAL,OTHER
788	OIL/GAS FACILITIES
788	GAS AND OIL FACILITIES: GENERIC/UNKNOWN
793	OIL OR GAS FIELD: GENERIC/UNKNOWN
898	PIT
923	QUARRY
1231	STOCKPILE

Code	Feature
1242	STOCKYARD
1242	STOCKYARD: GENERIC/UNKNOWN
1435	WASTE: OTHER, LIQUID
1436	WASTE: SETTLING POND,LIQUID
1437	WASTE: SEWAGE DISPOSAL POND,LIQUID
1438	WASTE: OTHER,SOLID
1656	SOLIDS DEPOT/DUMP: DOMESTIC, WASTE, ABANDONED
1657	SOLIDS DEPOT/DUMP: DOMESTIC, WASTE, OPERATIONAL
1658	SOLIDS DEPOT/DUMP: INDUSTRIAL, WASTE, UNKNOWN
1659	SOLIDS DEPOT/DUMP: INDUSTRIAL, STOCKPILE, UNKNOWN
1690	MINING AREA: UNKNOWN, UNKNOWN, UNKNOWN
1691	MINING AREA: PIT, OPEN PIT, OPERATIONAL
1692	MINING AREA: QUARRY, OPEN PIT, OPERATIONAL
1693	MINING AREA: MINE, OPEN, PIT, OPERATIONAL
1694	MINING AREA: MINE, UNKNOWN, ABANDONED
1697	MINING AREA: MINE, UNDERGROUND, OPERATIONAL

Land Feature Labels (llp)

Layer Location

\Topo*AREA***llp**

Layer Structure

Field Name	Type	Size	Description
NAME	String	100	Feature Name
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

Layer Content

Code	Feature
1851	TOPONYM: PLACE
1854	TOPONYM: RELIEF
1855	TOPONYM: TRANSPORT

Land Use (lur)

Layer Location

\Topo*AREA***lur**

Layer Structure

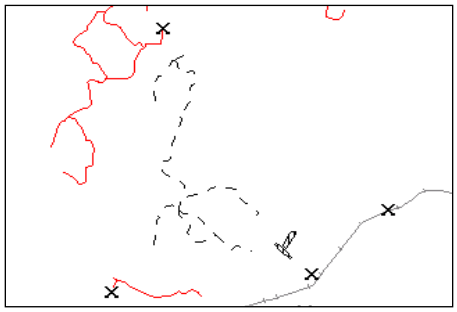
Field Name	Type	Size	Description
CATEGORY	String	40	Category of Landuse

Field Content

Category	Description
Commercial	Includes land occupied by establishments involved in the sale of goods and services: category includes, but is not limited to, retail stores, restaurants, doctor's offices, laboratories, home furniture stores, equipment stores, gas stations, and auto dealerships.
Government and Institutional	Includes land occupied by executive, legislative, judicial, administrative and regulatory branches of federal, provincial, local, and international governments: category includes, but is not limited to, customs posts, fire, police, courthouses, legislature offices, embassies and town halls. Or land occupied by an organization or foundation, devoted to the promotion of education, public service, or culture that can be public or private in nature. Includes, but is not limited to, hospitals, long term health care facilities, schools, colleges, universities, museums, art galleries, libraries, and religious buildings.
Resource and Industrial	Includes land occupied by establishments engaged in the mechanical or chemical transformation of materials or substances into new products Includes, but is not limited to, textile mills, primary metal Industries, warehouses, wholesale production, and storage. Or land set aside for the extraction or production of, renewable, self replenishing or replaceable, and non-renewable, not replaceable, resources. Includes, but is not limited to, agriculture, fisheries, mineral deposits, fossil fuel deposits, and wind farms.

Parks and Recreation	Includes land occupied by, usually in a largely natural state, designated for use by the public; often owned and managed by a government body. Includes, but is not limited to, national parks, provincial/territorial parks, park reserves and sanctuaries, natural areas, botanical gardens, zoos, golf courses, amusement parks, campgrounds, cemeteries, sports fields and stadiums, exhibition grounds, picnic areas and arenas.
Residential	Includes land primarily occupied by private residences regardless of physical building type and ownership structure.
Waterbody	A body of water is any significant accumulation of water that is typically a naturally occurring geographical feature but can also be man-made. They can include bodies that are navigable (waterways), bodies that can collect and move water (rivers and streams) and bodies that primarily hold water (lakes and oceans).
Open Area	Land where no indication of Land use type could be obtained.

Other Transportation (ot)



Layer Location

\Topo*AREA***otp – point feature type**
\Topo\ *AREA***otl – line feature type**
\Topo\ *AREA***otr – region/polygon feature type**

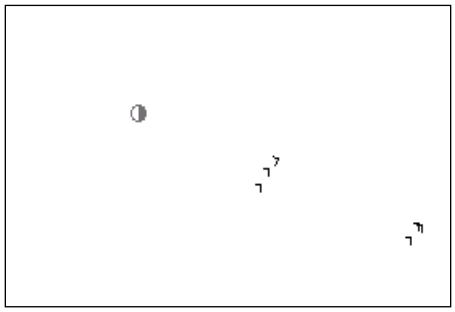
Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type
NAME	String	100	Feature Name

Code	Feature
10	Aerial Cableway: Generic/Unknown
11	Aerial Cableway: Other
12	Aerial Cableway: Ski Lift
45	Barrier/Gate: Generic/Unknown
46	Barrier/Gate: Other
47	Barrier/Gate: Tollgate
440	Embankment: Generic/Unknown
441	Embankment: Other
442	Embankment: Causeway
552	Footbridge: Generic/Unknown
563	Ford: Generic/Unknown
1066	Runway: Generic/Unknown
1067	Runway: Airfield, Unknown, Unknown
1068	Runway: Airfield, Operational, Hard Surface
1069	Runway: Airfield, Operational, Loose Surface
1070	Runway: Airport, Operational, Hard Surface
1071	Runway: Unknown, Abandoned, Unknown
1072	Runway: Airport, Operational, Loose Surface
1185	Snowshed: Generic/Unknown
1376	Tunnel: Generic/Unknown
1387	Turntable: Generic/Unknown
1720	Hazard To Air Navigation: Generic/Unknown
1721	Hazard To Air Navigation: Parabolic Antenna
1722	Hazard To Air Navigation: Chimney
1723	Hazard To Air Navigation: Tank
1724	Hazard To Air Navigation: Cross
1725	Hazard To Air Navigation: Wind-Operated Device
1726	Hazard To Air Navigation: Crane
1727	Hazard To Air Navigation: Water Disturbance
1728	Hazard To Air Navigation: Bridge
1729	Hazard To Air Navigation: Navigational Aid
1730	Hazard To Air Navigation: Aerial Cableway
1731	Hazard To Air Navigation: Tower

The OT layer also includes the ‘PATH’. The PATH is downtown Toronto's underground walkway and links various office towers, parking garages, subway stations, department stores, hotels, tourist attractions, and the Union Station railway terminal.

Physiography (ph)



Layer Location

\Topo*AREA***php – point feature type**
\Topo\ *AREA***phl – line feature type**
\Topo\ *AREA***phr – region/polygon feature type**

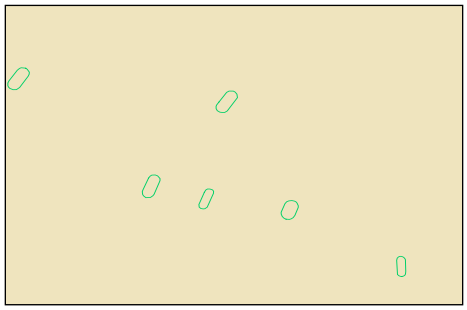
Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

Layer Content

Code	Feature
239	CAVE ENTRANCE
239	CAVE ENTRANCE: GENERIC/UNKNOWN
394	DRY RIVER BED
394	DRY RIVER BED: GENERIC/UNKNOWN
451	ESKER
451	ESKER: GENERIC/UNKNOWN
574	FORESHORE FLATS
731	MORAINE: GENERIC/UNKNOWN
1083	SAND: OTHER
1084	SAND: UNDERWATER

Parks & Recreation Lines (prl)



Layer Location

\Topo*AREA***prl**

Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Park or Recreational Feature Code
FEATURE	String	76	Park or Recreational Feature Type
NAME	String	68	Park or Recreational Feature Name
TYPE	String	40	Park Designation example National, Provincial, Territorial Parks
CLASS	String	40	Park or Recreational Feature Classification example wilderness, heritage or waterway
PROV	String	2	Provincial/Territorial Abbreviation

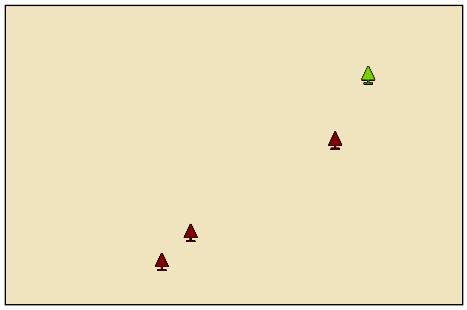
Layer Content

CanMap Parks & Recreation lines layer represents over 2,600 recreation line features across Canada.

Features - Recreational Features

Code	Feature
1198	Sports Track/Race Track: Other

Parks & Recreation Points (prp)



Layer Location

\Topo*AREA***prp**

Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Park or Recreational Feature Code
FEATURE	String	76	Park or Recreational Feature Type
NAME	String	68	Park or Recreational Feature Name
TYPE	String	40	Park Designation example National, Provincial, Territorial Parks
CLASS	String	40	Park or Recreational Feature Classification example wilderness, heritage or waterway
PROV	String	2	Provincial/Territorial Abbreviation

Layer Content

CanMap Parks & Recreation points layer represents over 150 national, provincial and territorial parks and over 2,300 recreation areas across Canada.

Features - Parks

Code	Feature
2025	Provincial Parks
2026	Territorial Parks

Features - Recreational

Code	FEATURE
206	Camp: Generic/unknown
217	Campground: Generic/unknown
250	Cemetery: Generic/unknown
607	Golf Driving Range: Generic/unknown
684	Lookout: Generic/unknown
640	Historic Site/Point of Interest
858	Picnic Site: Generic/unknown
1525	Zoo: Generic/unknown
1672	Liquids Depot/dump: Water, Swimming Pool

Parks Features - Types

Type
Provincial Park
Territorial Park

Parks Features - Classes

Class
Natural Environment
Day Use
Nature Reserve
Recreation/Heritage
Wildlife

Provincial Parks Duplicate Naming

Duplicate naming exists within the Parks & Recreation files. Duplicates exist in the following parks where park boundaries or park names are shared by more than one province:

Park Name	Prov	Prov	Description
Long Point Provincial Park	NS	ON	Park name shared by more then one province
Ten Mile Lake Provincial Park	NS	BC	Park name shared by more then one province
White Lake Provincial Park	ON	BC	Park name shared by more then one province in the points layer

CanMap Parks & Recreation does not represent legal park boundaries. At this time discrepancies may exist between the CanMap Park boundaries and the CANwat boundaries.

Parks & Recreation Regions (prr)

Layer Location

\Topo*AREA***prr**

Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Park or Recreational Feature Code
FEATURE	String	76	Park or Recreational Feature Type
NAME	String	68	Park or Recreational Feature Name
TYPE	String	40	Park Designation example National, Provincial, Territorial Parks
CLASS	String	40	Park or Recreational Feature Classification example wilderness, heritage or waterway
PROV	String	2	Provincial/Territorial Abbreviation

Layer Content

CanMap Parks & Recreation regions layer represents over 1,600 national, provincial and territorial parks and over 14,000 recreation areas across Canada.

Features - Park Features

Code	Feature
2021	National Parks Polygons
2022	National Wildlife Area
2023	Migratory Bird Sanctuary
2025	Provincial Parks
2026	Territorial Parks
2027	Other Parks

Features - Recreational Features

Code	Feature
23	Amusement Park: Generic/unknown
69	Botanical Garden: Generic/unknown
217	Campground: Generic/unknown
250	Cemetery: Generic/unknown
383	Drive-in Theatre: Generic/unknown
463	Exhibition Ground: Fairground
464	Exhibition Ground: Other
596	Golf Course: Generic/unknown
607	Golf Driving Range: Generic/unknown
640	Historic Site/Point of Interest
684	Lookout: Generic/unknown
823	Parks/sports Field: Generic/unknown
858	Picnic Site: Generic/unknown
1197	Sports Track/Race Track/Drag Strip
1525	Zoo: Generic/unknown
1672	Liquids Depot/dump: Water, Swimming Pool

Parks Features - Types

Type
National Park
Provincial Park
Territorial Park
Park Reserve
Ecological Reserve
Wildland Park
Wilderness Area
Wilderness Park
Protected Area
Park Area
Recreation Area
Grizzly Bear Sanctuary
Natural Area
National Wildlife Area
Migratory Bird Sanctuary

Parks Features - Classes

Class
Wilderness
Natural Environment
Heritage
Day Use
Camping
Waterway
Recreation
Nature Reserve
Historical
Recreation/Heritage
Ecological
Conservation
Education

Federal Parks Duplicate Naming

Duplicate naming exists within the Parks & Recreation files. Duplicates exist in the following parks where park boundaries are shared by more than one province:

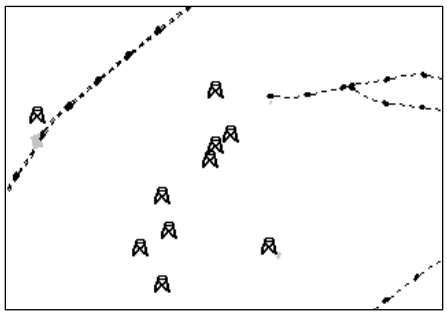
Park Name	Prov	Prov	Description
St. Clair National Wildlife Area	ON	SK	Park boundary shared by more than one province
Tuktut Nogait National Park	NU	NT	Park boundary shared by more than one province
Wood Buffalo National Park	AB	NT	Park boundary shared by more than one province

Provincial Parks Duplicate Naming

Duplicate naming exists within the Parks & Recreation files. Duplicates exist in the following parks where park boundaries or park names are shared by more than one province:

Park Name	Prov	Prov	Description
Cypress Hills Provincial Park	AB	SK	Park boundary shared by more than one province
Duck Mountain Provincial Park	SK	MB	Park name shared by more than one province
Long Lake Provincial Park	NS	AB	Park name shared by more than one province
Long Point Provincial Park	NS	ON	Park name shared by more than one province
Mara Provincial Park	ON	BC	Park name shared by more than one province
Sandbanks Provincial Park	ON	NL	Park name shared by more than one province
Silver Lake Provincial Park	ON	BC	Park name shared by more than one province
Ten Mile Lake Provincial Park	NS	BC	Park name shared by more than one province
White Lake Provincial Park	ON	BC	Park name shared by more than one province

Pipelines and Transmission (pt)



Layer Location

\Topo\ *AREA***ptp – point feature type**
\Topo\ *AREA***ptl – line feature type**
\Topo\ *AREA***ptr – region/polygon feature type**

Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

Layer Content

Code	Feature
881	PIPELINE: NATURAL GAS, ABOVEGROUND
881	PIPELINE: NATURAL GAS ,ABOVEGROUND
882	PIPELINE: NATURAL GAS,UNDERGROUND
882	PIPELINE: NATURAL GAS, UNDERGROUND
883	PIPELINE: OIL,ABOVEGROUND
883	PIPELINE: OIL ABOVEGROUND
884	PIPELINE: OIL UNDERGROUND
884	PIPELINE: OIL,UNDERGROUND
885	PIPELINE: SEWAGE/WASTE, ABOVEGROUND
885	PIPELINE: SEWAGE/WASTE,ABOVEGROUND
886	PIPELINE: UNKNOWN,ABOVEGROUND
886	PIPELINE: UNKNOWN, ABOVEGROUND
887	PIPELINE: UNKNOWN,UNDERGROUND
887	PIPELINE: UNKNOWN, UNDERGROUND
890	PIPELINE: MULTIUSE, ABOVEGROUND
891	PIPELINE: MULTIUSE, UNDERGROUND
1318	TRANSFORMER STATION (ELECTRIC)
1318	TRANSFORMER STATION: GENERIC/UNKNOWN
1330	TRANSMISSION LINE: POWER,OTHER
1330	TRANSMISSION LINE: POWER, OTHER
1331	TRANSMISSION LINE: POWER, SUBMARINE
1331	TRANSMISSION LINE: POWER,SUBMARINE
1332	TRANSMISSION LINE: TELEPHONE,OTHER
1332	TRANSMISSION LINE: TELEPHONE, OTHER
1398	VALVE: GENERIC/UNKNOWN
1398	VALVE

Railway and Transit Lines (rll)

Layer Location

\Topo*AREA***rll**

Layer Structure

Field Name	Type	Size	Description
OWNER	String	15	Railway Owner/Operator
CARTO	Number	3,0	Cartographic Rail Classification
ACCESS1	String	15	Alternate Railway Owner/Operator
ACCESS2	String	15	Alternate Railway Owner/Operator
ACCESS3	String	15	Alternate Railway Owner/Operator
TRS_RTE	String	68	Transit Route
RTE_TYPE	String	3	Route Type
PROV	String	2	Province
US_RAILCO	String	15	American owner/operator of connecting US railway line
US_STP	String	50	American railway station of entry on connecting US railway line
US_STATE	String	2	American State the connecting US railway line enters
CR	Number	1,0	Transit: Commuter Rail Flag
LRT	Number	1,0	Transit: Light Rail Flag
RT	Number	1,0	Transit: Rapid Transit Flag
CODE	Number	4,0	Classification Code
FEATURE	String	30	Railway Feature Type
RL_ID	Number	9,0	Railway unique identifier (Unique ID)

- Rail Transit lines have been integrated with the Railway lines. The TRS_TYPE and RTE_TYPE fields have been added to the Railway lines in order to accommodate the transit data. Three flag fields CR, LRT and RT have been included so that Rail Transit lines can be queried out to create a separate transit layer. In cases where a transit line has shared access with a railway line, the OWNER field will contain the railway data and the transit data will be contained in one of the ACCESS fields.

- The MAIN, SIDETRACK and ABANDONED fields have been removed and replaced by a new CARTO field that includes rail classifications for each of those categories and a transit carto. See Appendix A : Cartographic Road and Rail Classifications for carto descriptions.

Layer Content

Transit Definitions

CODE	FEATURE
91	BRIDGE
935	RAILWAY: ABANDONED
961	RAILWAY: SPECIAL, OTHER, OPERATIONAL, SINGLE
962	RAILWAY: OPERATIONAL
963	RAILWAY: OPERATIONAL, SIDETRACK
1376	TUNNEL

Commuter rail (CR) is a transit railway within urbanized areas, or between urbanized areas and outlying suburbs and regions within commuting distance. These transit lines are often shared with Railway lines.

Rapid Transit (RT) (**metro**, **subway)** is a high speed transit railway at ground level or below within urbanized areas.

Light rail (LRT) (**streetcar**, **tramway**, **automated guideway transit**) is a transit railway that operates on a loop within the central business district of a city or connecting the business district to its suburbs.

Source Look Up Table (src_lut)[19]

Layer Location

\Streets*AREAsrc*_**lut**

Layer Structure

Field Name	Type	Size	Description
RDS_ID	Number	9,0	UniqueId of related Roads (rds) segment
ACCURACY	Float	2	Column providing level of accuracy (per feature) in metres.
ACQ_TECH	Float	2	Acquisition technique used to incorporated segment

Acquisition Technique Code (ACQ_TECH)

Code	Label	Definition
-1	Unknown	Impossible to determine
0	None	No value applies
1	Other	All possible values not explicitly mentioned in the domain
2	GPS	Data collected using a GPS device
3	Orthoimage	Satellite imagery orthorectified
4	Orthophoto	Aerial photo orthorectified
5	Vector data	Vector digital data
6	Paper map	Conventional sources of information like maps or plans
7	Field Compilation	Information gathered from people directly in the field
8	Raster data	Data resulting from a scanning process
9	Digital elevation model	Data coming from a Digital Elevation Model (DEM)
10	Aerial photo	Aerial photography not orthorectified
11	Raw imagery data	Satellite imagery not orthorectified
12	Computed	Geometric information that has been computed (not captured)

[19] For more information on joining the src_lut Table to the rds Layer refer to Appendix F: Joining the rds Layer and src_lut Table

Vegetation (ver)

Layer Location

\Topo*AREA***ver**

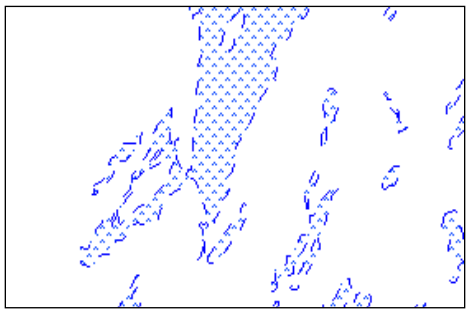
Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

Layer Content

Code	Feature
834	PEAT CUTTING
834	PEAT CUTTING: GENERIC/UNKNOWN
1343	TREE NURSERY
1410	VEGETATION: ORCHARD
1411	VEGETATION: VINEYARD/HOPFIELD
1412	VEGETATION: WOODED AREA
1413	VEGETATION: TREE NURSERY

Wetlands (wer)



Layer Location

\Topo*AREA***wer**

Layer Structure

Field Name	Type	Size	Description
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

Layer Content

Code	Feature
1253	STRING BOG
1253	STRING BOG: GENERIC/UNKNOWN
1492	WETLAND
1492	WETLAND: GENERIC/UNKNOWN

Water Feature Labels (wlp)

Layer Location

\Topo*AREA***wlp**

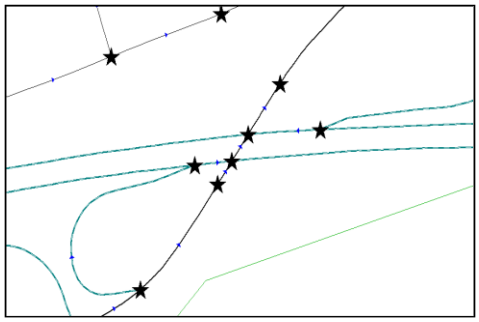
Layer Structure

Field Name	Type	Size	Description
NAME	String	100	Feature Name
CODE	Number	4,0	Feature Code
FEATURE	String	76	Feature Type

Layer Content

Code	Feature
1852	TOPONYM: HYDROGRAPHY
1853	TOPONYM: SHORELINE

Relative Elevation Nodes (ren)



Layer Location

\Streets*AREA***ren**

Layer Structure

Field Name	Type	Size	Description
NODE_ID	Number	8,0	Value of FROMNODE or TONODE of the street
REL_E	Number	2,0	Relative Elevation Value of node (-2,-1,0,1,2 or 3)
LONGITUDE	Number	11,6	Longitude location of node
LATITUDE	Number	11,6	Latitude location of node
INTRSCTION	Number	1,0	Flag indicating whether node is an intersection of two or more segments or a dead end. (1 = Intersection, 0 = Dead End)

Layer Content

Relative elevation differentiates coincident nodes of varying elevation and outlines relationships between street segments on different planes via node-and-segment connectivity. Relative Elevation Nodes (ren) are a work-around for inherent limitations when navigating through three-dimensional street networks represented on the two-dimensional plane (i.e. computer screen).

Ren help to establish routing options and are particularly useful where complex overpass/underpass structures exist because they indicate street segments as being on different road-levels; where on the computer screen all streets appear to be connected. For example, one can discern the physical relationship of an overpass to the street below and determine that a turn directly from the overpass to the street is prohibited. The ren layer, coupled with the Turn Restrictions Table (trn), generates the most accurate routing.

Rule: Travel is permitted between street segments connected by a common node and prohibited between street segments not sharing a common node. A common node (where the FROMNODE value of one segment equals the TONODE value of another) implies a node of same relative elevation and a turning possibility. Conversely, where a common node does not exist (implying a prohibited turn) there

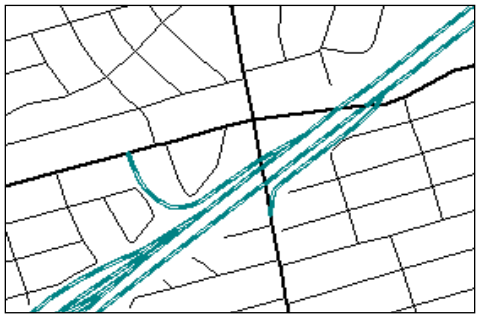
are two (or more) nodes stacked directly on top of each other-- each with a different relative elevation. Value of the filed REL_E (-2,-1,0,1,2 and 3) indicates that number of plans or elevations at the same intersection.

Each respective street segment has two ren associated with it; one at the fromnode and the other at the tonode. Additionally, a street will connect to another street via a common node of the same relative elevation.

Note:

REL_ELEV values are Integer depicting the relative elevation or plane associated with a particular street segment. Actual elevations and true ground relationships of “higher- level” and “lower- level” streets are not represented by this field.

Roads (rte)



Layer Location

\Streets*AREA***rte**

Layer Structure

Field Name	Type	Size	Description
STREET[20]	String	69	Street Title (comprised of PRETYPE, PREDIR, STREETNAME, SUFTYPE, SUFDIR)
FROMLEFT	Number	6,0	Address on the Left side at the From end of the street segment
TOLEFT	Number	6,0	Address on the Left side at the To end of the street segment
FROMRIGHT	Number	6,0	Address on the Right side at the From end of the street segment
TORIGHT	Number	6,0	Address on the Right side at the To end of the street segment
PREDIR	String	2	Prefix Direction component of the Street Title (e.g. **W** 5 St)
PRETYPE	String	10	Prefix StreetType component of the Street Title (e.g. **Rue** Jean)
STREETNAME	String	45	StreetName component of the Street Title (e.g. **John** St E)
SUFTYPE	String	10	Suffix StreetType component of the Street Title (e.g. John **St** E)
SUFDIR	String	2	Suffix Direction component of the Street Title (e.g. John St **E**)
CARTO[21]	Number	3,0	Cartographic Road Classification
LEFT_MAF	String	70	Municipal Amalgamation
RIGHT_MAF	String	70	Municipal Amalgamation
LEFT_FSA	String	3	Forward Sortation Area
RIGHT_FSA	String	3	Forward Sortation Area
LEFT_PRV	String	2	Province Abbreviation
RIGHT_PRV	String	2	Province Abbreviation
UNIQUEID	Number	9,0	Unique Identifier of Street segment
ONEWAY	Number	1,0	One Way flag

[20] For more information refer to Appendix C: Street Types and Street Directions

[21] For more information refer to Appendix D: Cartographic Road Classifications

Field Name	Type	Size	Description
MEDIAN	Number	1,0	Single-line road segment with a median separating traffic. 1= median, 0= no median
ROAD_DIR	String	2	Road segment direction: FROMNODE to TONODE (FT) or TONODE to FROMNODE (TF)
FROMNODE	Number	9,0	Node begins road segment
TONODE	Number	9,0	Node ends road segment
SPDLMT_KM	Number	3,0	Maximum speed limit for a road segment—80% are legal posted speed limits
SPD_MI	Number	3,0	Estimated speed limit (miles per hour)
RDLEN_MI	Number	7,3	Length of road segment (miles)
SPD_KM	Number	3,0	Estimated speed limit (km per hour)
RDLEN_M	Number	10,3	Length of road segment (meters)
TRVLTIM	Number	8,3	Estimated travel time (minutes) based on speed limit and road length
RDLEN_MI_E	Number	7,3	Adjusted road length (miles) calculated using actual distance with elevation
RDLEN_M_E	Number	10,3	Adjusted road length (meters) calculated using actual distance with elevation
TRVLTIM_E	Number	8,3	Estimated travel time (minutes) based on speed limit and actual road length with elevation

Field Content

Estimated Speed limits are derived using the Carto value of a Road Segment and the Population Density in the vicinity of the Road Segment. Populated areas have a population density of at least 100 persons per square kilometer; Sparsely Populated areas have a population density of less than 100 persons per square kilometer.

Carto	Population Density	Speed Limit (km/h) SPEEDKM	Speed Limit (mph) SPEEDMILES
1	All	100	60
2	Populated	80	50
2	Sparsely Populated	80	50
3	Populated	60	40
3	Sparsely Populated	80	50
4	Populated	60	40
4	Sparsely Populated	80	50
5	Populated	50	30
5	Sparsely Populated	80	50
6+	All	10	6
All	All Ramps	50	30

These highway routes are flagged in the Roads Lookup Table (rds_lut):

- TransCanada Hwy
- Yellowhead Hwy
- Alaskan Hwy
- Cariboo Hwy
- Crowsnest Hwy
- Dempster Hwy
- John Hart Hwy
- Klondike Hwy
- Mackenzie Hwy

Notes:

- Address fields contain “zeros” for street segments without addresses
- Ramps connecting flagged highway routes are not considered part of the highway route system
- Ferry Ramps connect Ferry Routes to the street network
- As of v2005.1, SPDLMT_KM attribution will be updated on an ongoing basis as part of the production cycle

Routes Look Up Table (rte_lut)[22]

Table Location

\Streets*AREA***rte_lut**

Table Structure

Field Name	Type	Size	Description
RDS_ID	Number	9,0	Unique Identifier of related Routes (rte) segment
ON_RAMP	Number	1,0	1 = On Ramp, 0 = not an On Ramp
OFF_RAMP	Number	1,0	1 = Off Ramp, 0 = not an Off Ramp
DUAL_ROAD	Number	1,0	1= Divided Road Segment 0 = not a Divided Road Segment
DIV_RD_DIR	String	3	Divided road direction along major highways (bound)
GRAD_FC	Number	6,3	Gradient between the From Node and the segment Centroid
GRAD_CT	Number	6,3	Gradient between the segment Centroid and the To Node
DIST_FC	Number	10,3	Distance along the gradient between the From Node and segment Centroid
DIST_CT	Number	10,3	Distance along the gradient between the segment Centroid and the To Node
EXIT_NUM	String	30	Highway Exit Number
EXIT_DIR	String	2	Ramp Exit Direction
FERRY_TYPE	String	68	Ferry Route Type (i.e. Passenger, Vehicle, etc.)

Ferry Types	DIV_RD_DIR (Divided Road Direction)
Canadian Passenger & Freight Ferry	WB (West Bound)
US Passenger & Freight Ferry	EB (East Bound)
Private Passenger & Freight Ferry	NB (North Bound)
Canadian Passenger & Freight Ferry/Ice Road	SB (South Bound)
US Passenger & Freight Passenger Ferry/Ice Road	NSB (North and South Bound)
Private Passenger & Freight Ferry/Ice Road	EWB (East and West Bound)

Field Content

Bounds might not be exactly correct along highways but the main purpose is to select one boundary along a highway.
Example: To select Highway 401 West bound
* Join CANrte table and CANrte_lut table as CANrte.UniqueID = CANrte_lut.RDS_ID
* Select Street = “highway 401” and DIV_RD_DIR = “WB”

[22] For more information on joining the rte_lut Table to the rds Layer refer to Appendix K: Joining the rte Layer and rds_lut Table

Turn Restrictions Table (trn)

Table Location

\Streets*AREA***trn**

Table Structure

Field Name	Type	Size	Description
TURN_ID	Number	9,0	Unique Identifier of Turn Restriction
RDS_ID	Number	9,0	Unique Identifier of Road Segment traveling upon
RES_RDS_ID	Number	9,0	Unique identifier of Road Segment to which a turn is prohibited
VIA_RDS_ID	Number	9,0	Unique Identifier of Road Segment that would have to be traveled upon to execute the prohibited turn to Res_Rds_Id (u-turn on a double-lined road)
TRVLDIR	String	5	Traveling Direction of Road Segment
TYPE	String	10	Type of prohibited turn (Left, Right, Straight, U-turn) when a legislated turn restriction exists
TIME1_FROM	String	8	Start Time of Turn Restriction
TIME1_TO	String	8	End Time of Turn Restriction
TIME2_FROM	String	8	Start Time of Turn Restriction
TIME2_TO	String	8	End Time of Turn Restriction
DAT_FROM	String	10	First Day of turn restriction
DAY_TO	String	10	Last Day of turn restriction
ON_RED_SIG	Number	1,0	1 = No Turn on Red, 0 = Turn on any Signal
AUTH_VEHIC	Number	1,0	1 = Authorized Vehicles only, 0 = all Vehicles Excepted
BUS_EXCEPT	Number	1,0	1 = Buses Excepted, 0 = No Exceptions
LEGISLATED	Number	1,0	1 = Legislated, 0 = Non-Legislated
PROV	String	2	Province Abbreviation

Table Content

Turn restrictions identify road segments on which it is prohibited to turn from one street segment to another. There are two different classifications of turn restrictions; legislated and non-legislated.

Legislated Turn Restrictions are prohibited turning movements set out by municipal bylaw where signage is posted. One, or a combination of several restrictions may be listed. Example: No left turn from 6 a.m. to 9 a.m., Monday through Friday.

Non-legislated Turn Restrictions are physical restrictions that restrict turning movements-- options that would be considered valid otherwise if the physical restriction was not captured. An example of this situation is the overpass crossing over another street. In this scenario, a turn cannot be made directly from the overpass to the road below and vice versa.

Transportation Route Restrictions (trr)

Table Location

\Streets*AREA***trr**

Table Structure

Field Name	Type	Size	Description
RDS_ID	Number	9,0	Unique Identifier of Transportation Route Restriction
RES_TRUCK	Number	1,0	1 = Heavy Trucks prohibited
TIME_FROM	String	8	Start Time of Restriction
TIME_TO	String	8	End Time of Restriction
DAY_FROM	String	10	First Day of Restriction
DAY_TO	String	10	Last Day of Restriction
RESWGT_FUL	Number	6,0	Maximum Weight Capacity of road
PROV	String	2	Province Abbreviation

Table Content

Transportation Route Restrictions identify streets designated as heavy truck routes as defined by a particular municipality. Current coverage includes the CMA boundaries for the 13 capital cities of each province and territory, the capital of Canada, and cities having a combined 1996 Census population of 500 000 or greater. The exception is Iqaluit where only the CSD boundary was utilized.

The Transportation Route Restrictions file is a lookup table that can be linked back to the Roads (rte) file via RDS_ID in trr and UNIQUEID in rte.

CMAs Included

Prov	CMA Name	1996 Population	Heavy Truck Weight (kg)
AB	CALGARY	821,628	5,450
AB	EDMONTON	862,597	4,500
BC	VANCOUVER[23]	1,831,665	10,000
BC	VICTORIA[24]	304,287	22,000
MB	WINNIPEG	667,209	24,300
NB	FREDERICTON	78,950	10,000
NF	ST. JOHN'S	174,051	3,000
NS	HALIFAX	332,518	3,000
NT	YELLOWKNIFE	17,275	N/A
NU	IQALUIT (CSD)	N/A	N/A
ON	HAMILTON	624,360	4,000
ON	TORONTO	4,263,757	5,000
ON/QC	OTTAWA/HULL	1,010,498	4,500/ 3,000
PE	CHARLOTTETOWN	57,224	N/A
QC	MONTREAL	3,326,510	3,000
QC	QUEBEC	671,889	3,000
SK	REGINA	193,652	9,000
YT	WHITEHORSE	21,808	N/A

Heavy Truck Weight is defined as the maximum weight permitted before a vehicle is deemed a heavy truck, designated by a particular municipality. A truck with a weight of 2 500 kg in Montreal is not considered a heavy truck and can therefore travel on all routes within the municipality. Conversely, a truck with a weight of 3 000 kg would be considered a heavy truck in Montreal and must therefore adhere to travel on specified truck routes. Emergency vehicles and, in most cases, school busses are not restricted by heavy truck routes.

Some Municipalities have time and day information associated with heavy truck restrictions:

RDS_ID	RES_TRUCK	TIME_FROM	TIME_TO	DAY_FROM	DAY_TO	RESWGT_FUL	PROV
1,575,467	1	7:00 PM	7:00 AM	Monday	Saturday	0	MB
2,246,640	1	9:00 PM	7:00 AM	(none)	(none)	0	NS

The first record would be interpreted: "Street segment 1575467 has a heavy truck restriction between 7:00 p.m. and 7:00 a.m. from Monday to Saturday."

The second record would be interpreted: "Street segment 2246640 has a heavy truck restriction between 9:00 p.m. and 7:00 a.m. on every day of the week.

[23] Exceptions: Port Coquitlam - 4,600 kg; Richmond - 5,000 kg
[24] Exception: District of Saanich – 5,500 kg

Highway Exits (xit)

Layer Location

\Streets*AREA***xit**

Layer Structure

Field Name	Type	Size	Description
EXIT_NUM	String	30	Highway Exit Number
EXIT_DIR	String	2	Direction of Exit ramp

Layer Content

The exit layer is comprised of points containing exit number and direction attribution. Exit sourcing is only available for the provinces of British Columbia, New Brunswick, Nova Scotia, Ontario, Quebec and Newfoundland.

- EXIT_NUM field contains comma-delimited records where multiple exit numbers exist. 356, 357 – denotes exit 356 and exit 357
- STREET field from rds table contains ampersand-delimited records where multiple exit numbers exist: “HIGHWAY 401 (EXIT 356 & 357)”
- EXIT_DIR field direction attribution is associated with the exit number only

Sample Summary of Roads (rte) Segments updated with Highway Exit Number Information

STREET (rte)	**PRETYPE** (rte)	**SUFTYPE** (rte)	**STREET** (rte)	**EXIT_NUM** (rte_lut)	**EXIT_DIR** (rte_lut)
		RAMP	EXIT 163	163	
		RAMP	EXIT 107 N	107	N
		RAMP	EXIT 293 (COLLEGE HILL RD[25])	293 (COLLEGE HILL RD)	
		RAMP	EXIT 6 (HIGHWAY 7) N	6 (HIGHWAY 7)	N
HIGHWAY 8 BYPASS	HWY		HIGHWAY 8 BYPASS (EXIT 278[26])	278	
POINT ACONI RD N		RD	POINT ACONI RD N (EXIT 18)	18	
ALDER POINT RD		RD	ALDER POINT RD (EXIT 19 N)	19	N
		ÉCH	SORTIE 202	202	
		ÉCH	SORTIE 100 S	100	S
		ÉCH	SORTIE 21 (COTE D'ABRAHAM)	21 (COTE D'ABRAHAM)	
		ÉCH	SORTIE 21 (AUT DES LAURENTIDES) N	21 (AUT DES LAURENTIDES)	N
ROUTE 185	RTE		ROUTE 185 (SORTIE 499)	499	
BOUL PERROT N	BOUL		BOUL PERROT N (SORTIE 37)	37	
ROUTE 132	RTE		ROUTE 132 (SORTIE 601 N)	601	N
		ÉCH	SORTIE 76 & 77	76, 77	
		RAMP	EXIT 29 & 31	29, 31	
		ÉCH	SORTIE 78 & 82 & 83	78, 82, 83	
HIGHWAY 401	HWY		HIGHWAY 401 (COLLECTORS TO EXPRESS)	COLLECTORS TO EXPRESS	
HIGHWAY 401	HWY		HIGHWAY 401 (EXPRESS TO COLLECTORS)	EXPRESS TO COLLECTORS	
HIGHWAY 401	HWY		HIGHWAY 401 (TO COLLECTORS)	TO COLLECTORS	
HIGHWAY 401	HWY		HIGHWAY 401 (TO EXPRESS)	TO EXPRESS	
		RAMP	TO EXPRESS	TO EXPRESS	
		RAMP	TO COLLECTORS	TO COLLECTORS	

A One-to-One relationship exists between the Highway Exit Numbers and the Road (rte) segments updated with Exit Number information and only segments intersecting an exit point are updated with exit information. (The majority of these segments are designated as RAMP or ÉCH (échangeur) in the Roads (rte) SufType field)

[25] Parentheses contain the name of the street being exited to

[26] Parentheses contain the exit number associated with the named road

Diagram A – Basic Ramp System with Naming Conventions

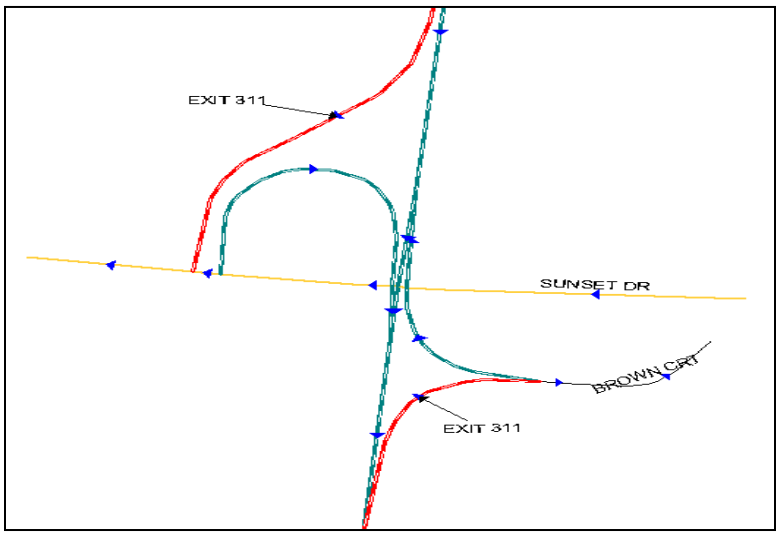


Diagram B – Basic Ramp System with Naming and Directionality Conventions

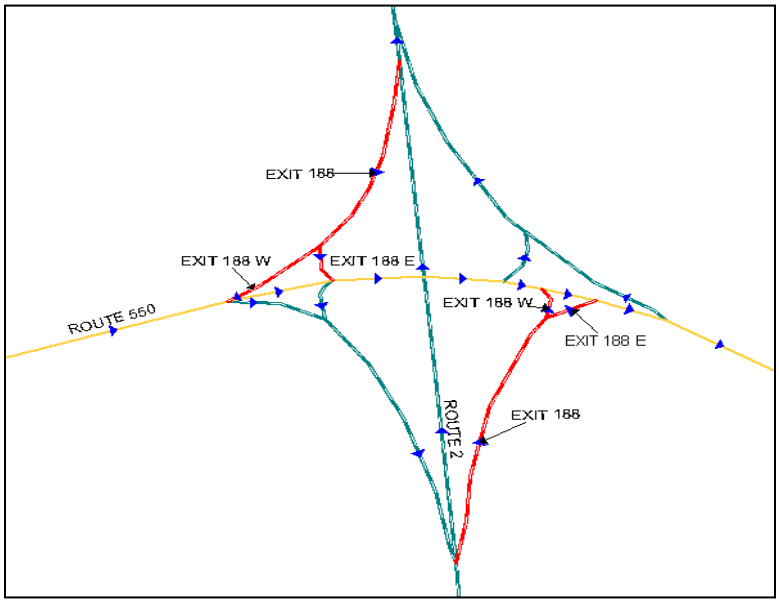


Diagram C – Naming conventions in Accessing and Exiting Collector and Express Lanes

(Highway 400 in the Greater Toronto Area in Ontario)

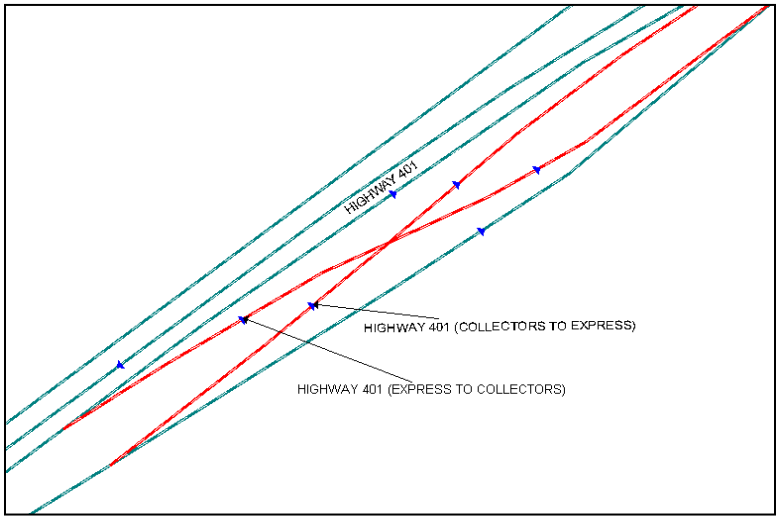


Diagram D – Exiting an Off Ramp with a choice to take Express or Collector Lanes (Scenario 1)

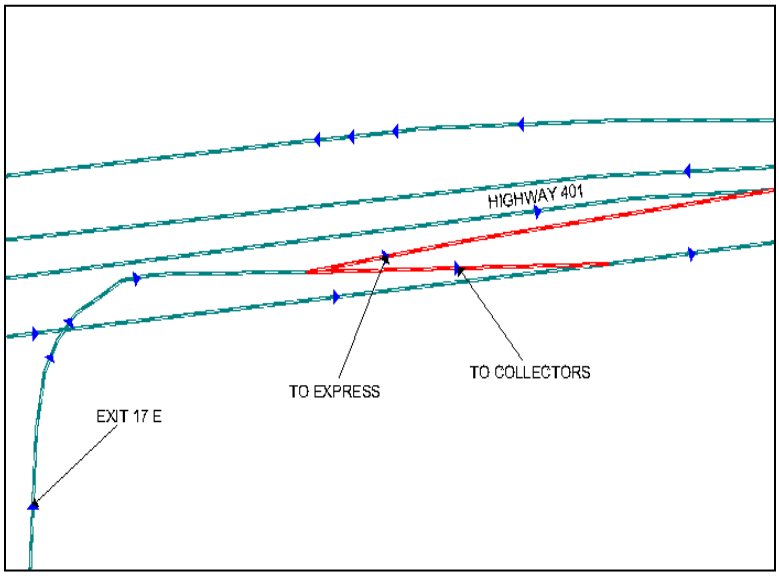


Diagram E – Exiting an Off Ramp with a choice to take Express or Collector Lanes (Scenario 2)

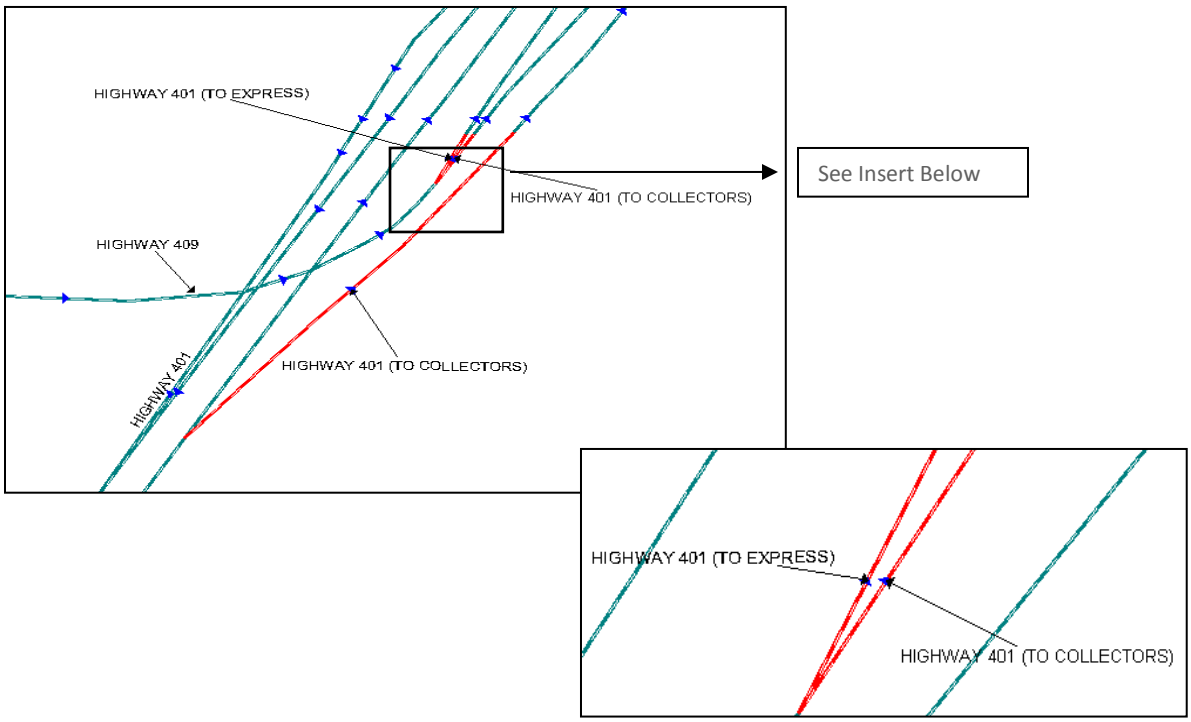


Diagram F – Named Road Segment acting as an Off Ramp

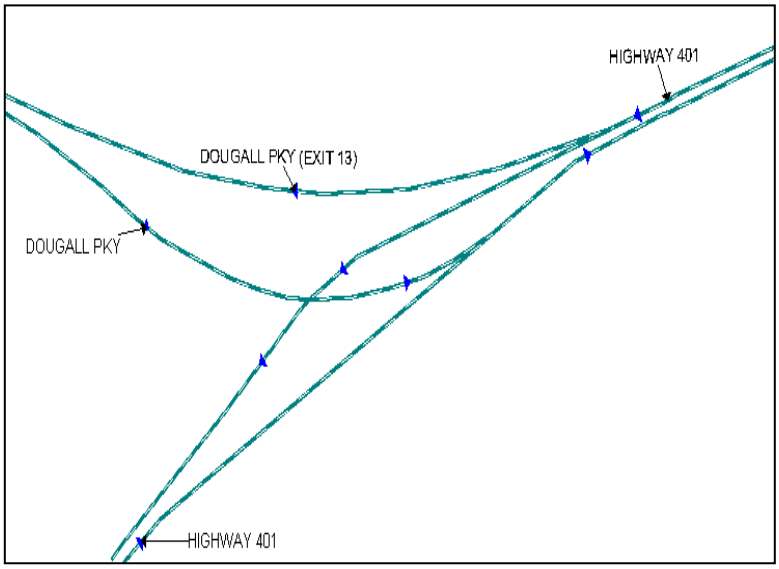


Diagram G – Multiple Exits from one Off Ramp

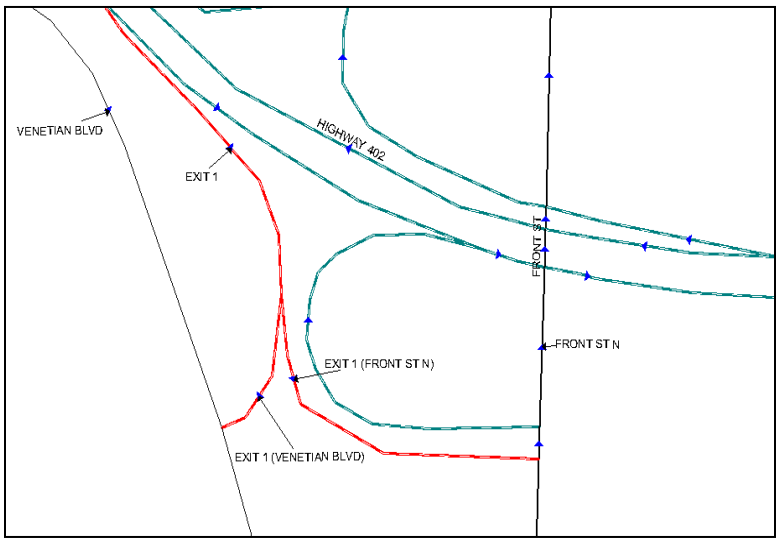
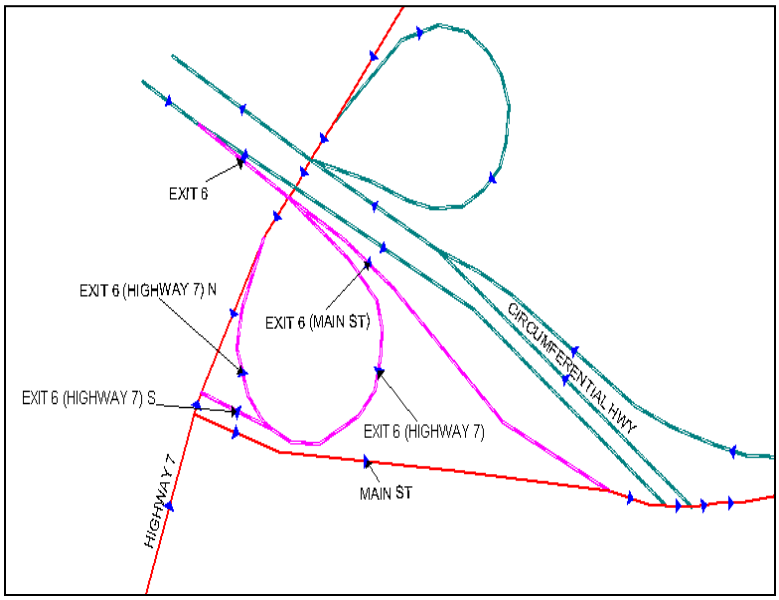


Diagram H – Multiple Exits from one Off Ramp with Direction



CanMap® Streetfiles Delta

Layer Properties

Property	Description
Coverage	Canada
Currency	May 2018
Projection	All layers are displayed as unprojected Longitude-Latitude
Datum	WGS84 datum
Format	ESRI Shapefile

Layer Contents

Layer Name	Description	Feature Type
RdsDelta	Updated/modified road segment lines for Canada	Line

Layer Structure

Field Name	Field Type	Field Size	Description
RDS_ID	Number	9,0	UniqueId of related Roads (rds) segment
STATUS	Character	30	Data Change Type Classification: 1) *Modified* – Spatial coordinate and/or attribute changes 2) *Net New* – Added net new road segment
DATE	Character	20	Data Release Month and Year

Appendix A: File Extensions

ESRI® File Extensions

Refer to the following table for descriptions of ESRI® file extensions. All file extensions are not available for all DMTI products.

File Extension	File Description
*.shp	Part of standard ESRI® Shapefile
*.shx	Part of standard ESRI® Shapefile
*.dbf	Part of standard ESRI® Shapefile
*.sbn	Part of Spatial Index
*.sbx	Part of Spatial Index
*.lyr	Layer Properties
*.prj	Datum and Projection Properties
*.mxd	ArcGIS Project file

MapInfo® Professional File Extensions

Refer to the following table for descriptions of MapInfo file extensions.

File Extension	File Description
*.dat	Attribute Data
*.id	Graphic Index
*.ind	Attribute Index
*.map	Graphic Data
*.tab	Tab File
*.wor	Workspace

Appendix B: Street Types and Street Directions[27]

Street Types

Street Types used in the CanMap® suite of products correspond to the standard abbreviations used by Canada Post. The Language column distinguishes between street types in English (E) and street types in French (F).

Street Type	Abbreviation	Language
Abbey	ABBEY	E
Access	ACCESS	E
Acres	ACRES	E
Allée	ALLÉE	F
Alley	ALLEY	E
Autoroute	AUT	F
Avenue	AV	F
Avenue	AVE	E
Bay	BAY	E
Beach	BEACH	E
Bend	BEND	E
Boulevard	BLVD	E
Boulevard	BOUL	F
Br	BR	E
By-Pass	BYPASS	E
Byway	BYWAY	E
Centre	C	F
Campus	CAMPUS	E
Cape	CAPE	E
Carr	CAR	F
Carrefour	CARREF	F
Cul-de-sac	CDS	E
Cercle	CERCLE	F
Chemin	CH	F
Chase	CHASE	E
Circle	CIR	E

Street Type	Abbreviation	Language
Croissant	CROIS	F
Crossing	CROSS	E
Causway	CSWY	E
Court	CRT	E
Centre	CTR	E
Dale	DALE	E
Dell	DELL	E
Diversion	DIVERS	E
Downs	DOWNS	E
Drive	DR	E
Driveway	DRIVEWAY	E
Échangeur	ÉCH	F
End	END	E
Esplanade	ESPL	E
Estates	ESTATE	E
Expressway	EXPY	E
Extension	EXTEN	E
Farm	FARM	E
Field	FIELD	E
Forest	FOREST	E
Forest Service Road	FSR	E
Front	FRONT	E
Freeway	FWY	E
Gate	GATE	E
Gardens	GDNS	E
Glade	GLADE	E

[27] Source: Canada Post Corporation, The Canadian Addressing Guide, October 2002

Street Type	Abbreviation	Language
Circuit	CIRCT	E
Green	GREEN	E
Grounds	GRNDS	E
Grove	GROVE	E
Harbour	HARBR	E
Heath	HEATH	E
Highlands	HGHLDS	E
Hill	HILL	E
Hollow	HOLLOW	E
Heights	HTS	E
Highway	HWY	E
Île	ÎLE	F
Impasse	IMP	E
Inlet	INLET	E
Island	ISLAND	E
Key	KEY	E
Knoll	KNOLL	E
Landing	LANDNG	E
Lane	LANE	E
Lake	LAKE	E
Line	LINE	E
Link	LINK	E
Lookout	LKOUT	E
Limits	LMTS	E
Loop	LOOP	E
Mall	MALL	E
Manor	MANOR	E
Maze	MAZE	E
Meadow	MEADOW	E
Mews	MEWS	E
Montée	MONTÉE	F
Moor	MOOR	E
Mount	MOUNT	E
Mountain	MTN	E
Overpass	OPASS	E
Orchard	ORCH	E

Street Type	Abbreviation	Language
Glen	GLEN	E
Passage	PASS	E
Path	PATH	E
Pines	PINES	E
Park	PK	E
Parkway	PKY	E
Pathway	PTWAY	E
Place	PL	E
Place	PLACE	F
Plateau	PLAT	E
Promenade	PROM	E
Private	PVT	E
Pathway	PTWAY	E
Plaza	PLAZA	E
Pointe	POINTE	F
Point	PT	E
Port	PORT	E
Quai	QUAI	F
Quay	QUAY	E
Ramp	RAMP	E
Rang	RANG	F
Road	RD	E
Rond-point	RDPT	F
Range	RG	E
Ridge	RIDGE	E
Rise	RISE	E
Ruelle	RLE	F
Row	ROW	E
Route	RTE	E
Rue	RUE	F
Run	RUN	E
Sentier	SENT	E
Square	SQ	E
Street	ST	E
Subdivision	SUBDIV	E
Terrace	TERR	E

Street Type	Abbreviation	Language
Parade	PARADE	E
Parc	PARC	F
Tili	TILI	E
Townline	TLINE	E
Towers	TOWERS	E
Trail	TRAIL	E
Turnabout	TRNABT	E
Vale	VALE	E
Via	VIA	E
View	VIEW	E
Villas	VILLAS	E

Street Type	Abbreviation	Language
Terrasse	TSSE	F
Thicket	THICK	E
Village	VILLGE	E
Vista	VISTA	E
Voie	VOIE	F
Walk	WALK	E
Way	WAY	E
Wharf	WHARF	E
Wood	WOOD	E
Wynd	WYND	E

Street Directions

Street Directions used in the CanMap® suite of products correspond to the standard abbreviations used by Canada Post. The Language column distinguishes between street types in English (E) and street types in French (F).

Street Direction	Abbreviation	Language
East	E	E
Est	E	F
Nord	N	F
NordEst	NE	F
NordOuest	NO	F
North	N	E
NorthEast	NE	E
NorthWest	NW	E
Ouest	O	F
South	S	E
SouthEast	SE	E
SouthWest	SW	E
Sud	S	F
SudEst	SE	F
SudOuest	SO	F
West	W	E

Appendix C: Cartographic Road and Rail Classifications

Carto #	Carto Name	Description
1	Expressway	Expressways and 400 series highways, e.g. Highway 401, Don Valley Parkway
2	Primary Highway	Primary Highway, e.g. Highway 7, Highway 11
3	Secondary Highway	Secondary Highways
4	Major Road	Major road or Arterial road, e.g. Bayview Ave
5	Local Road	Subdivision road in a city or gravel road in a rural area
6	Trail	Trails
7	Proposed Road	Proposed Road Segments
8	Proposed Highway	Proposed Highway Segments
10	Main	Main Railway and Transit Lines (includes segments of rail that are shared with transit)
11	Sidetrack	Sidetrack of Main Railway Route
12	Abandoned	Abandoned sections of Main Railway Route
13	Transit	Transit lines that are not shared with Railway lines
20	Ferry Route	Approximate travel route of Ferry
21	Ferry Ramp	Ferry Ramp
22	Ice Road	Approximate travel route of Ice Road
23	Ice Ramp	Ice Ramp
24	Ferry Route/Ice Road	Approximate travel route of Ferry/Ice Road
25	Ferry/Ice Ramp	Ferry/Ice Ramp

Appendix D: Geographical Placement of Data

Precision Codes

Code indicating the positional accuracy or precision of the positioned or geocoded feature.

Prec_Code	Description
1	Point aligned to Building Footprint fabric via Orthorectified photo or satellite imagery
2	Point aligned to Parcel fabric via Orthorectified photo or satellite imagery
3	Centroid of 1:50 000 NTDB/CanVec feature or placed via Orthorectified photo
4	Block-face representative point from CanMap streets - High precision
5	Block-face representative point from CanMap streets - Lower precision
6	Postal Code - Block-face representative point/ Local Delivery Unit (LDU) centroid
7	Forward Sortation Area (FSA) centroid
8	Municipal Centroid

Appendix G: Canadian Urban Areas and Abbreviations

Canadian urban areas are based upon DMTI's topographic coverage areas. The following table is a partial list of urban areas and their abbreviations. For a complete listing of Canadian urban areas refer to the CANtop layer located in the Canada Directory or for information regarding other areas please contact DMTI Spatial.

Province	Topographic Coverage Area	Abbreviation
AB	Calgary	CLGRY
AB	Edmonton	EDMNT
BC	Vancouver	VNCVR
BC	Victoria	VCTRA
MB	Winnipeg	WINPG
NB	Fredericton	FRDTN
NB	Saint John	STJON
NL	Labrador City	LBDRC
NL	St. John's	STJHN
NS	Halifax	HALFX
NT	Yellowknife	YLKNF
NU	Iqaluit	IQALT
ON	Greater Toronto Area	GTA
ON	Hamilton Niagara	HAMNG
ON	Ottawa	OTAWA
PE	Charlottetown	CHLTN
QC	Hull	HULL
QC	Montreal	MNTRL
QC	Quebec City	QBCTY
SK	Regina	RGNA
YT	Whitehorse	WTHRS

Appendix H: Exceptions to Official Time in Canada[28]

In some parts of Canada, observed time practice differs from official time. The following is a list of regions in Canada and the time practices that they observe.

British Columbia

- Boundary: British Columbia, with exceptions
  - Pacific Standard Time (PST): UTC - 8h
  - Pacific Daylight Time (PDT): UTC - 7h
  - PDT: from 2:00 PST on the first Sunday of April to 2:00 PDT on the last Sunday of October, the period of DST must be gazetted each year.
- British Columbia Exceptions - Municipalities using Mountain Standard and Mountain Daylight Time:
  - Parts of Central Kootenay
  - Parts of Columbia_Shuswap
  - Parts of East Kootenay including all of Cranbrook
  - All of Kootenay-Boundary
  - All of Peace River

Nunavut Territory

- Boundary: Nunavut east of 85° W longitude; except Southampton Island and the "islands near Southampton Island".
  - Eastern Daylight Time (EDT): UTC - 4h
  - EDT: from 2:00 EST on the first Sunday of April to 2:00 EDT on the last Sunday of October
- Boundary: Nunavut's Southampton Island and the "islands near Southampton Island"
  - Eastern Standard Time (EST): UTC - 5h
- Boundary: Nunavut west of 85° W longitude and east of 102° W longitude; except Southampton Island ,"the islands near Southampton Island", and the"Kitikmeot Region"
  - Central Standard Time (CST): UTC - 6h
  - Central Daylight Time (CDT): UTC - 5h
  - CDT: from 2:00 CST on the first Sunday of April to 2:00 CDT on the last Sunday of October
- Boundary: Nunavut west of 102° W longitude; (and all of the "Kitikmeot Region")
  - Mountain Standard Time (MST): UTC - 6h
  - Mountain Daylight Time (MDT): UTC - 5h
  - MDT: from 2:00 MST on the first Sunday of April to 2:00 MDT on the last Sunday of October

[28] Source: National Research Council (NRC), April 2001

Ontario

- Boundary: Ontario east of 90° W longitude
    - Eastern Standard Time (EST): UTC - 5h
    - Eastern Daylight Time (EDT): UTC - 4h
    - EDT: from 2:00 EST on the first Sunday of April to 2:00 EDT on the last Sunday of October
- Boundary: Ontario west of 90° W longitude
    - Central Standard Time (CST): UTC - 6h
    - Central Daylight Time (EDT): UTC - 5h
    - CDT: from 2:00 CST on the first Sunday of April to 2:00 CDT on the last Sunday of October

Quebec

- Boundary: Quebec east of 63° W longitude
    - Atlantic Standard Time (AST): Coordinated Universal Time ("UTC") - 4h
    - In effect year-round
- Boundary: Quebec west of 63° W longitude
    - Eastern Standard Time (EST): UTC - 5h
    - Eastern Daylight Time (EDT): UTC - 4h
    - EDT: from 2:00 EST on the first Sunday of April to 2:00 EDT on the last Sunday of October

Saskatchewan

- Boundary: the Battle River district (around Lloydminster, in 1983 the Payton time option area was created, it uses CST year-round)
    - Central Standard Time (CST): UTC - 6h
    - CST: from 2:00 MST on the first Sunday of April to 2:00 CST on the last Sunday of October
- Boundary: Saskatchewan side of Lloydminster
    - Mountain Standard Time (MST): UTC - 7h
    - Mountain Daylight Time (MDT): UTC - 6h
    - MDT: from 2:00 MST on the first Sunday of April to 2:00 MDT on the last Sunday of October

Yukon Territory

    - Pacific* Standard Time (PST): UTC - 8h
    - Pacific* Daylight Time (PDT): UTC - 7h
    - PDT: from 2:00 PST on the first Sunday of April to 2:00 PDT on the last Sunday of October

* Yukon regulations refer to this as "Yukon" rather than Pacific time. Federal legislation (the Interpretation Act) still specifies Yukon time as one hour west of Pacific time. Using "Pacific" avoids this legislative ambiguity.

Appendix I: Unshorelined vs. Shorelined Boundaries

National Water Layer

DMTI Spatial's standard boundaries are referred to as unshorelined boundaries. Unshorelined boundaries suggest that the boundary does not reflect physical shorelines.

Not recommended: "Unshorelined" boundaries with the national water (CANwat) layer beneath the boundary layer.

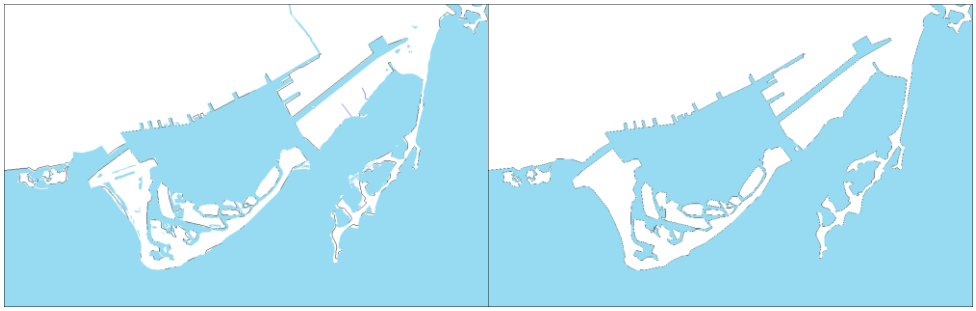
Recommended: "Unshorelined" boundaries with the national water (CANwat) layer on top of the boundary layer.

Shorelined boundaries are available from DMTI Spatial as a custom order. These boundaries are created using a subset of the CANwat layer, which is used to clip the overlap between the unshorelined boundaries.

Topographic Coverage Areas

With the purchase of CanMap Streetfiles and CanMap RouteLogistics DMTI Spatial provides a detailed water layer (*AREA*hy). Detailed water is only available in topographic coverage areas only.

It is not recommended that you view any shorelined boundaries with the detailed water layer (*AREA*hy), as the two layers will not align with each other.



Detailed water layer (*AREA*hy) and shorelined census boundaries

National water layer (*CAN*wat) and shorelined census boundaries

Please contact DMTI Spatial if you require a detailed nationwide water product or shorelined boundaries

Appendix J: Joining the rte (rds) Layer and rds_lut Table

To view the *AREA*rds data linked to the *AREA*rds_lut data the user must complete a manual join.

MapInfo

- Open both the *AREA*rds data file and the *AREA*rds_lut data file in MapInfo.
- Select 'Query'> 'SQL Select…'
- Complete the following query in the Query Menu *(See Figure 1)*
- Select * from *AREArds*, *AREArds*_lut where *AREArds*.UNIQUEID = *AREArds*_lut.RDS_ID
- 'Verify' the SQL query and if valid, press 'OK'.

Once the query result has been obtained you can then view the joined tables e.g. 'Joined_Results' via the Info Tool in the Map Window or through the 'Joined_Results' Table Browser.

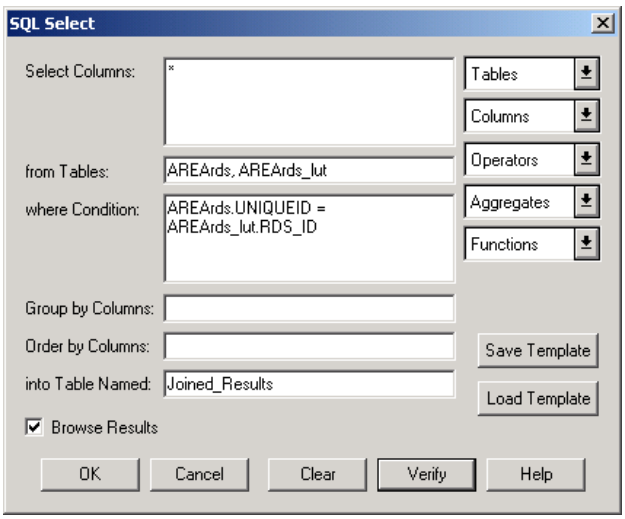


Figure 1: Joining MapInfo Tables

To create a permanent join simply save the joined tables as a new MapInfo Table.

ArcView

- With the project file open, click on the Window menu and select the project (AREArds.apr) to display the project window.
- With the project window now displayed select the 'Tables' icon. Click on the 'Add' button, locate and open the AREArds_lut data table you wish to join.
- With the AREArds_lut table displayed click on the field (RDS_ID) that will be used to join the AREArds_lut table to the AREArds data table. Now return to the View with the AREArds file.
- Click on the AREArds theme in the legend to make it active.
- Click on the 'Open Theme Table' button to display the AREArds attribute table (or choose Theme from the Table menu).
- Click on the field that will be used to join the AREArds data table (UNIQUEID).
- Finally, click on the Join button (or choose Join from the Table menu)

When you scroll along the *AREArds* attribute table you will notice the *AREArds*_lut data has been joined. Additional data tables can be joined, so that many table attributes can be shown at one time. To undo the joins between the data tables click on the *AREArds* attribute table making it active and from the 'Table' menu select 'Remove All Joins'.

ArcGIS

Open the appropriate project file (AREArds.mxd).

- Select the 'Add Data' button to open the corresponding attribute data file (AREArds_lut.dbf) you wish to join.
- Select the AREArds theme, right click and select 'Joins and Relates' selecting 'Join…' from the sub-menu of choices.
- Complete the 'Join Data' GUI as shown below using the UNIQUEID and RDS_ID fields as the common field between the tables. Once complete hit 'OK'.
- Once the join is complete select the AREArds theme, right click and select 'Open Attribute Table'. Once open, you can now scroll through the results of the join.
- Additional data tables can be joined, so that many table attributes can be shown at one time. To undo the joins between the data tables select the AREArds attribute table, right click and select 'Joins and Relates' selecting 'Remove Join(s)' from the sub-menu of choices. Select the table you wish to remove the join from the list provided (i.e. AREArds_lut.dbf).

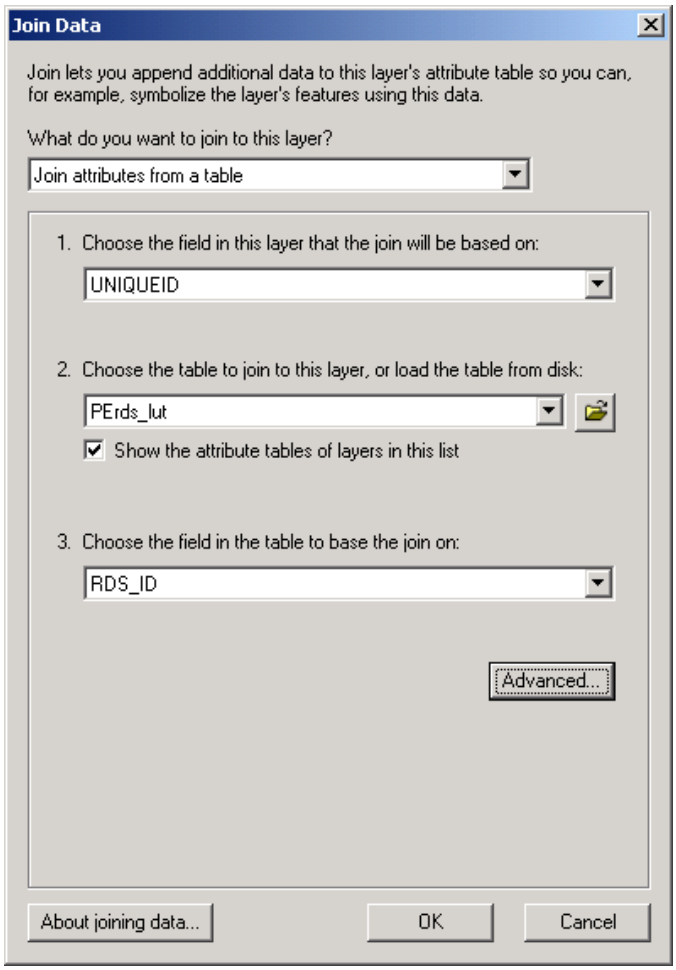


Figure 2: Joining Layers in ArcGIS.

Appendix K: RouteView Pro

RouteView Pro is an extension to MapInfo Professional providing a user with routing and catchment area functionality.

How to use the data in RouteView Pro

1. Open the RouteView Pro extension. In MapInfo Professional, under the File pulldown menu, select 'Run MapBasic Program' and run "c:\Program Files\Dataview\RV Pro 1.2\rvpro.mbx"
2. Under the RouteView Pro pulldown menu, select 'Configuration', then 'Open Road Network'.
3. The Road Network file to open is **\RVP\Nad83\CanMapRL\Geography\ _rvp.gph** and the Road Table is **\RVP\Nad83\CanMapRL\Geography\ _rvp.tab**
4. Start using RouteView Pro.

File Structure: (_rvp.tab)

Field Name	Field Type	Field Size	Description
ID	Number	9,0	Unique identifier for RouteView Pro
NAME	String	69	Street Name
TYPE	String	10	Road classification
YSKA	Integer	-	Turn restriction code used by RouteView Pro
ONE_WAY	String	1	F - if road is one-way in direction of start to end (direction of digitization) R - if road is one-way in direction of end to start (reverse direction of digitization) *Left blank* – if road is 2 way

Notes:

- All files found within the **\RVP\Nad83\CanMapRL*AREA*** directory are needed by RouteView Pro. DMTI does not provide RouteView Pro software or tools—please contact software vendor.
- To view all of CanMap® RouteLogistics in MapInfo Professional, please use the data within the **\MapInfo\Nad83\CanMapRL*AREA*** directory.

Appendix L: ArcLogistics Route v3.0

File Descriptions

File	Description
Allst.shp	CanMap RouteLogistics
Oneway.shp	One Way Streets
Turn.shp	Turn Restrictions
Exit.shp	Highway Exit Numbers
Dtl-cnty.shp	Municipal boundaries
Zip.shp	Forward Sortation areas
Lakes.shp	Water Features
Parks.shp	Park Boundaries
States.shp	Provincial Boundaries

File Structure

Roads - Allst.shp

Field Name	Field Type	Field Size	Description
FULL_NAME	String	69	Street Name
L_F_ADD	Number	6,0	From Left Address
L_T_ADD	Number	6,0	To Left Address
R_F_ADD	Number	6,0	From Right Address
R_T_ADD	Number	6,0	To Right Address
PREFIX	String	2	Prefix Direction before Street Name (e.g. **W** 5 St)
PRE_TYPE	String	10	Prefix Type before Street Name (e.g. **Rue** Jean)
NAME	String	45	Street Name (e.g. **John** St E)
TYPE	String	10	Street Type after Street Name (e.g. John **St** E)
SUFFIX	String	2	Suffix Street Direction after Street Name (e.g. John St **E**)
ALIAS_NAME	String	69	Alternate Street Name
FORMERNAME[29]	String	69	Former Provincial Hwy Name
HWY_NAME	String	69	Highway Names
HWY_NUM	String	20	Highway Number(s)
CARTO	Number	3,0	Road Classification
CITYL	String	70	City Name to the left of the road segment
CITYR	String	70	City Name to the right of the road segment

[29] Applicable only in Ontario

ZIPL	String	3	FSA (Forward Sortation Area) to the left of the road segment
ZIPR	String	3	FSA (Forward Sortation Area) to the right of the road segment
STATE_ABBR	String	2	Province Abbreviation (e.g. Ontario = ON)
TRNSCDAHWY	Number	1,0	1 = TransCanada Highway
YELOWHDHWY	Number	1,0	1 = Yellow Head Highway
TOLL_RD	Number	1,0	1 = Toll Road
SHAPEID	Number	9,0	Unique Identifier from ArcLogistics Route
USERID	Number	9,0	Unique Identifier from CanMap® Streetfiles
CFCC	String	3	ArcLogistics Route code for classifying street
DISP_CODE	Number	2,0	ArcLogistics Route code for displaying street segments
ONEWAY	Number	1,0	1 = Oneway segment
ON_RAMP	Number	1,0	1 = On Ramp
OFF_RAMP	Number	1,0	1 = Off Ramp
EXIT_NUM	String	30	Highway exit number
EXIT_DIR	String	2	Direction of exit ramp
ROAD_DIR	String	2	Segment direction is either from the Fnode to the Tnode (FT) or from the Tnode to the Fnode (TF)
FNODE	Number	9,0	Node begins line segment
TNODE	Number	9,0	Node ends line segment
F_ZLEV	Number	2	Elevation of Fnode
T_ZLEV	Number	2	Elevation of Tnode
SPEEDMILES[30]	Number	3,0	Estimated speed limit (miles per hour)
RDLENMILES	Number	8,3	Length of segment in miles
SPEEDKM[30]	Number	3,0	Estimated speed limit (kilometers per hour). See note below.
METERS	Number	8,3	Length of segment in meters
FT_MINUTES	Number	6,3	Estimated travel time in minutes based on speed limit and road length
TF_MINUTES	Number	6,3	Estimated travel time in minutes based on speed limit and road length
FERRY_TYPE	String	68	Type of ferry route (ex. Passenger, vehicle, etc.)

[30] For more information refer to Roads (rte)

One-way Streets (oneway.shp)

Field Name	Field Type	Field Size	Description
SHAPEID	Number	9,0	Unique Identifier from ArcLogistics Route
USERID	Number	9,0	Unique Identifier from CanMap® Streetfiles
ONEWAY	Number	1,0	1 = Oneway segment

Turn Restrictions (turn.shp)[31]

Field Name	Field Type	Field Size	Description
FSHAPEID	Number	9,0	From segment unique Identifier from ArcLogistics Route
TSHAPEID	Number	9,0	To segment unique Identifier from ArcLogistics Route
F_USERID	Number	9,0	From segment unique Identifier from CanMap RouteLogistics
T_USERID	Number	9,0	To segment unique Identifier from CanMap RouteLogistics

Highway Exit Numbers* (exit.shp)

Field Name	Field Type	Field Size	Description
EXIT_NUM	String	30	Highway exit number
EXIT_DIR	String	2	Direction of exit ramp

Municipality Boundaries (dtl-cnty.shp)

Field Name	Field Type	Field Size	Description
NAME	String	70	Municipality Name
TYPE	String	3	Type of Community

Forward Sortation Areas (zip.shp)

Field Name	Field Type	Field Size	Description
ZIP	String	3	FSA (first 3 digits of postal code)

Parks (parks.shp)

Field Name	Field Type	Field Size	Description
TYPE	String	40	Type of recreational park

[31] For more information refer to Turn Restrictions (trn)

Provincial Water (lakes.shp)

Field Name	Field Type	Field Size	Description
NAME	String	40	Lake/River Name

Provincial Outline (state.shp)

Field Name	Field Type	Field Size	Description
NAME	String	68	Province Name

Installation of CanMap RouteLogistics for ArcLogistics Route

1. Create a ***new directory*** for the data on one of your local drives.
2. Copy all the directories and files under the **\Alr\Nad83\CanmapRL\Geography\A*lr_data*** directory on the CD to this ***new directory.***
3. Delete the files in the ***..\ArcLogistics Route\Background*** directory from your computer, then copy the files in the **\Alr\Nad83\CanmapRL\Geography\B*ackground*** directory into ***..\ArcLogistics Route\Background.***
4. Under the Start Menu select ESRI\ArcLogistics Route – Administer Streets.
5. Click the Street Data option and then New. A Set Up Streets Dialog will be displayed.
6. Enter a Name for the New Street Dataset (e.g. Ontario).
7. Choose the unit for ArcLogistics Route to display distances in the MapView window.
8. Choose the unit used by the input data found in this folder **\Alr\Nad83\CanmapRL\Geography\A*lr_data.***
9. Browse to the folder location of the map data files.
10. Check the box to Rebuild Routing and Geocoding Indices.
11. Click OK. A default service area file will be created for the street dataset.
12. Your data is now ready for ArcLogistics Route. Close the Administer Streets window.
13. Open ArcLogistics Route.
14. Under File, select Open Service Area. Open the Service Area that you created under the Administer Streets window. Start using ArcLogistics Route.

Changing speeds in CanMap RouteLogistics for ArcLogistics Route

1. Close all windows associated with ArcLogistics Route
2. In the alr_data, make a backup copy of the allst.dbf file. For example, copy the allst.dbf to allst_bk.dbf
3. Import allst.dbf into Microsoft Access or open it in Microsoft Excel
4. Re-populate the SPEEDMILES field and the SPEEDKM field to your desired speeds
5. Re-calculate the FT_MINUTES and TF_MINUTES (they both should have the same time) using the following formula:
    1. *FT_MINUTES* = *Meters* * .001 / SPEEDKM * 60
    2. *TF_MINUTES* = *Meters* * .001 / SPEEDKM * 60

6. Save the changes to allst.dbf as a dbase 3 file
7. Re-open the Administrator window for ArcLogistics route and rebuild the routing and geocoding indices.
8. Re-open ArcLogistics Route and rebuild the routes

Loading a newer version of CanMap RouteLogistics into ArcLogistics Route

If you have received a previous version of CanMap RouteLogistics in ArcLogistics Route format and wish to refresh the data with the new version contained on this CD, please follow the subsequent steps:

Note: This methodology is necessary if you have created Locations, Orders and Vehicles based on a previous version of CanMap RouteLogistics and you wish to preserve this information and use it in conjunction with the newer version of CanMap RouteLogistics. For Example, changing from CanMap RouteLogistics V4.2 to V6.1

1. Make a backup copy of your current directory containing CanMap RouteLogistics in ALR format and all Access databases (i.e. ALR.mdb, ALR1.mdb) containing your Orders, Locations, Vehicles, etc.
2. Copy the new CanMap RouteLogistics data in ALR format directly onto the existing older version of CanMapRouteLogistics in ALR format.

Example:
Current ALR data location:
C:_MY _FILES\ALRDATA\Gta\Alr_data\
C:_MY _FILES\ALRDATA\Gta\Background\

New data extracted from CD into "_MY_FILES" directory:
C:_MY _FILES\ALR\NAD83\CANMAPRL\GTA\Alr_data\
C:_MY _FILES\ALR\NAD83\CANMAPRL\GTA\Background\

   a. Note: It is important that the directory names and path remain the same as when the streets were last Indexed in the Administer Streets utility
   b. Note: Your Access databases (ALR.mdb, ALR1.mdb etc) will not be overwritten, but all other layers containing CanMap RouteLogistics will be overwritten.
3. Rebuild both Geocoding and Routing indices from the Administer streets prompt
4. Open ArcLogistics Route (specify the service area you are refreshing if you have more than one)
   a. Note: The colour of the Routing sub folders should be a slightly paler yellow than the main "Routing Folder". This indicates that ALR has detected your new CanMap RouteLogistics data
5. Reroute by using the "Build Route" button to refresh and create new routes based on the existing Locations, Vehicles and Orders.

Appendix M: Filegeodatabase (FGD) Format

The Filegeodatabase format files are available in the following packaged areas: Canada and Western Canada.

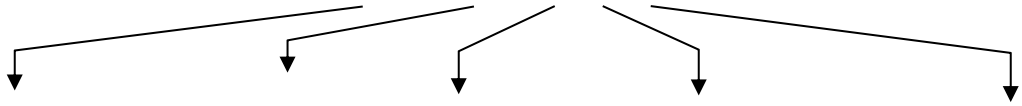
Software Requirements

CanMap RouteLogistics is packaged using ArcGIS 10.0 standards. As such, these files can only be used with versions of ESRI ArcGIS 10.0 and above, including ArcGIS Websarver 10.0 or above.

Filegeodatabase (FGD) Naming Conventions

CanMap RouteLogistics Filegeodatabse files are organized into the following directory structure and use the following directory and file naming conventions:

Example: \CanMapRL*AREAFilegeodatabase***Streets*****AREA**rte



Product Directory	Geographic Area Directory	General Content Directory	Geographic Area Abbreviation	File Content Abbreviation
CanMapRL	ON	Streets	ON	rte

The geographic area directory area indicates the packaged areas, for example
ATLTC= Atlantic Region
PRCTL= Prairies/Central

For the layers' attributes, please refer to the *Data Dictionary* of CanMap RouteLogistics User Manual.

Appendix N: Frequently Asked Questions

Roads:

Q: How do I select a specific direction on the highways?

A: After joining the Roads data to the RoutingTable (See Previous Question), query where:

'CANrte.Street= "*HWY NAME*" and CANrte_Lut.Div_Rd_Dir = "*BOUND*"'

Where "*HWY NAME*" is the name of the highway as depicted in the file.
And where "*BOUND*" is the directional bound of the highway you would like to select out
Potential values are:

Value	Definition
NB	North Bound
EB	East Bound
SB	South Bound
WB	West Bound

Q: What is the level of accuracy that can be found throughout the Roads data?

A: DMTI road segments are generally accurate up to 60cm in most urban areas, and as low as 15m-30m in rural areas.

As all CanMap segments have been referenced against digital sources, as well as satellite imagery, their accuracy may vary from the above statement for a number of different reasons, albeit at a very small scale:

- Lower-quality satellite imagery
- New roads created that do not exist in the most recent satellite imagery
- Improper referencing of existing satellite or aerial photography (due to lack of control points)

Q: What trail codes can be safely considered when creating a routable network using the RouteLogistics Product?

A: Currently there are over 60 trail codes present within the trail segments (carto = 6) of the CanMap Routelogistic product. These trail codes represent segments such as park trails, alleyways, or universities to name a few. As can be seen through their descriptions not all codes allow transportation by car, therefore we have identified certain carto 6 trail codes that we can be safely included in your routing network, these are listed below:

Trail Code	Trail Type
3006	Alley Way
3010	Forest Service Road
3011	Rest Area
3012	Service Station
5005	University
5006	College
6004	Weigh Station
7000	Limited Use Road: Other
7001	Limited Use Road: Winter
7002	Limited Use Road: Dry Weather
7003	Limited Use Road: Cart Track

PPN:

Q: Is the PPN_ID value in the PlaceNames layer relatable between versions?

A: Yes, the PPN_ID is a unique ID assigned to each record. This ID does not change for consistent records. If an ID is no longer in the table, the Place Name was identified as being no longer in use. If an ID is in a new version and not in an older version, the Place Name has just recently been added to our database.

Q: Why aren't all Municipality names in the Municipality layer represented in the PlaceNames layer?

A: The Municipality layer was originally created and based on Census Subdivisions (CSD). CSD's are classified into 55 types, many of which, are very large areas with dispersed populations. Some names therefore in the Municipality layer do not have PPN counterparts because they may not be 'populated places' as defined in the PPN product.

Parks:

Q: Why are there multiple park polygons with the same name in the parks polygon layer?

A: All multi-part park polygons (prr) have been disaggregated.

Q: Why do some park centroids fall in water?

A: Some parks are solely marine areas and thus do not have any land. Also, the CANwat file is a generalized version of the DMTI water product and will thus not have as many land features in which to place centroids.

Appendix O: ISO 19115:2003 Compliant Metadata

Metadata Notification

As of May 15th 2005, DMTI Spatial data products have metadata that are IS0 19115:2003 compliant.

This product now includes structured metadata files as provided in XML and/or HTM format. These metadata files reside with the graphic or database files to which they are associated. It is recommended that users review and customize the metadata as per their specific needs.

This latest addition to the CanMap® line of products is another enhancement that will benefit our users and increase overall product satisfaction.